



CESI Study Guide

Introduction

This study guide provides resources for content areas of the Certification Exam for Structural IntegrationSM (CESISM), and is provided as a service by the Certification Board for Structural IntegrationSM. Candidates who take the CESI are responsible for their own preparation and their own performance on the exam. The availability, content, and/or accuracy of this guide cannot be held responsible for an exam candidate's preparation for, and performance on, the CESI. The exam addresses only the minimum knowledge necessary to provide safe and effective application of the bodywork known as Structural Integration. This guide is not meant to fully describe or define the theory and practice of Structural Integration. The literature recommendations in this guide are not a full bibliography of works on, and applicable to, the practice of Structural Integration and should not be used as such.

Strategies and Tips

The CESI is a standardized, multiple choice exam of 120 questions. Each question has four possible answers. Often a question will have one answer that is “more correct” than the other three answers.

Read each question and each answer carefully.

While there are no trick questions on the exam, most questions contain key words or phrases that, if not noticed or understood, may prevent you from choosing the best answer. Many questions contain conditional statements, such as, “most often”, “best example”, “most directly affects” or “primarily viewed as”. Conditional key words and phrases like this mean that more than one of the possible answers may seem correct, but only one choice is the most correct, and therefore the right answer. You will need to choose the single best answer, so read each question and each answer carefully.

Set a reasonable and focused pace.

The CESI is administered using specific set guidelines that provide ample time for qualified candidates to complete the exam. You should be able to take the time to read through each question and all possible answers. Rushing to complete the test and not taking advantage of the time allowed will likely result in incorrect choices. Set a pace where you can stay focused and comfortable.

Mark questions you are unsure about and return to them later.

If you are having difficulty choosing an answer for a question, mark it and return to it later. As you continue through the exam, other questions may help you recall important information. Be sure to scan your answer record for skipped questions.

Answer all the questions.

Do not leave any answers blank. Improve your score by answering every question even if you are not sure of the correct answer. Using the process of elimination, make your best guess. The

test is scored in a way that only gives you credit for correct answers; you will not have points taken away for incorrect answers.

Follow the instructions of the test proctor.

Exam instructions will be clear and specific. Listen to, and carefully follow all instructions. Failure to follow these procedures may cause your exam to be voided.

Be prepared for the exam.

Your education and experience as a Structural Integrator, along with studying the information in this exam guide, is the best approach for successfully completing the CESI. Exam staff are trained to monitor for irregularities such as cheating.

Be aware of test anxiety.

Being anxious about a test is completely normal. Reduce test anxiety by planning enough time to study in the days and weeks leading up to the exam. Get a good night's sleep before the exam and arrive on time. There are many strategies for reducing test anxiety. Seek out resources that allow you to be more confident and relaxed while taking the exam.

Domains, Tasks, and Knowledge

The CBSISM 2018 Revised Practice Analysis delineates the tasks performed and knowledge applied by Structural Integrators in the practice of their profession. Structural Integration is a somatic, interactive practice using fascial manipulation, awareness, and movement education applied within a framework designed to promote and/or restore postural balance and functional ease by aligning and integrating the body in gravity. The effective application of Structural Integration knowledge and skills increases the probability of benefits for clients, including improved performance, personal growth, and an enhanced sense of well-being.

Domain	Percentage on Exam
I. Therapeutic Relationship	15%
II. Assessment	20%
III. Strategy	15%
IV. The Work	42%
V. Ethics and Professional Issues	8%

Domain I. - Therapeutic Relationship (15% of exam)

Task One (15%): Create a safe and motivating relationship through which effective structural integration can occur. The safe and effective performance of this task requires knowledge of:

- Techniques for establishing therapeutic relationship (e.g., attentive listening, compassionate contact, receptivity/leadership)
- Dynamics of the client/practitioner relationship (e.g., transference, projection, power differential, boundaries)
- Techniques for clarifying expectations about the process (for example, informed consent, providing information and addressing concerns about the process).
- Autonomic indicators
- Realistic structural integration outcomes
- Dialogue Techniques

Domain II. - Assessment (20% of exam)

Task One (1%): Interview the client in order to obtain a history of illness and injury and ascertain goals, resources and other pertinent information. The safe and effective performance of this task requires knowledge of:

- Interviewing techniques
- Pathologies, injuries and medications
- Contraindications
- Client's resources for structural integration work
- Realistic structural integration outcomes

Task Two (6%): Evaluate structure in relation to gravity by visual observation of balance, symmetry, alignment of segments, tissue continuity, tissue quality, the Line, adaptability, vitality, silhouette, etc. The safe and effective performance of this task requires knowledge of:

- Geometric order (Optimal Structural Order)
- Tissue characteristics
- Gravity
- Anatomy, physiology and kinesiology
- Structural models (for example: The Line, cylinder model, internal/external, tensegrity, Anatomy Trains/myofascial meridians)
- Connective tissue matrix
- Common postural and movement patterns in standing, sitting, or walking

Task Three (5%): Evaluate structure by palpation of tissue for differentiation of layers, flexibility, ligament quality, bone position, elasticity, response to touch, temperature gradient, tonus, passive range of motion, mobility, motility, etc. The safe and effective performance of this task requires knowledge of:

- Contraindications
- Tissue characteristics
- Palpation techniques
- Palpatory anatomy
- Myofascial assessments (e.g., passive and active range of motion, tissue quality)

Task Four (6%): Evaluate movement in relation to gravity by visual observation of gait, planes of motion, coordination, orientation, active range of motion, balance between expansion and contraction, efficiency, intrinsic/extrinsic balance, breath, dynamic Line, etc. The safe and effective performance of this task requires knowledge of:

- Pathologies, injuries and medications
- Geometric order (Optimal Structural Order)
- Gravity
- Anatomy, physiology and kinesiology
- Myofascial assessments (e.g., passive and active range of motion, tissue quality)

- Structural models (for example The Line, cylinder model, internal/external, tensegrity, Anatomy Trains/myofascial meridians)
- Common postural and movement patterns in standing, sitting or walking.
- Movement models (for example, Core/sleeve, G/G-prime, Earth/Sky orientation, continuum of stability-mobility, inhalation vs. exhalation-fixation,
- Tonic Function model, pendulum motions)
- Respiratory dynamics

Task Five (2%): Evaluate somatic awareness and emotional expression by visual observation and dialogue. The safe and effective performance of this task requires knowledge of:

- Autonomic indicators
- Expression of emotion in the body
- Dialogue techniques

Domain III. - Strategy (15% of exam)

Task One (15%): Integrate assessment information in order to formulate a plan of structural integration work. The safe and effective performance of this task requires knowledge of:

- The 10 series (including the goals of each session)
- Variations on the 10 series
- Principles and fundamentals of structural integration as they pertain to the formulation of a session or series of sessions (e.g., balance, support, connectivity)
- Session modifications for unique client conditions or contraindications that prevent typical positioning or strategy
- Practitioner's limits (personal and professional).

Domain IV. – The Work (42% of exam)

Task One (1%): Position the client for optimal effectiveness of the work. The safe and effective performance of this task requires knowledge of:

- Optimal positions
- Cues for client movement to assist in tissue work and/or to facilitate integrated movement.
- Session modifications for unique client conditions or contraindications that prevent typical positioning or strategy.

Task Two (5%): Attend to and maintain optimal and efficient practitioner body mechanics and self-awareness. The safe and effective performance of this task requires knowledge of:

- Autonomic indicators
- Geometric order (Optimal Structural Order)
- Gravity
- Respiratory dynamics
- Practitioner's limits (personal and professional)

Task Three (12%): Contact, mobilize, and organize the connective tissue matrix. The safe and effective performance of this task requires knowledge of:

- Autonomic indicators
- Tissue characteristics
- Gravity
- Anatomy, physiology and kinesiology
- Structural models (for example The Line, cylinder model, internal/external, tensegrity, Anatomy Trains/myofascial meridians)
- Connective tissue matrix
- Palpatory anatomy
- Myofascial assessments (e.g., passive and active range of motion, tissue quality)
- Respiratory dynamics
- Physical endangerment areas
- Quality, quantity, depth, direction and duration of mobilization
- The continuum of tissue responsiveness
- Cues for active client movement to assist tissue work

Task Four (3%): Teach the client how to interact with touch and provide feedback. The safe and effective performance of this task requires knowledge of:

- Techniques for establishing therapeutic relationship (for example, attentive listening, compassionate contact, receptivity/leadership).
- Dynamics of the client/practitioner relationship (e.g., transference, projection, power differential, boundaries)
- Techniques for clarifying expectations about the process (e.g., informed consent, providing information and addressing concerns about the process)

- Autonomic indicators
- Client's resources for structural integration work
- Tissue characteristics
- Anatomy, physiology and kinesiology
- Dialogue Techniques
- The continuum of tissue responsiveness
- Cues for client movement to assist in tissue work and/or to facilitate integrated movement
- Perceptual and movement cues to facilitate integrated movement
- Mirroring techniques in communication and language, posture and movement

Task Five (5%): Set baselines for comparisons and contrasts The safe and effective performance of this task requires knowledge of:

- Geometric order (Optimal Structural Order)
- Tissue characteristics
- Anatomy, physiology and kinesiology
- Structural models (for example The Line, cylinder model, internal/external, tensegrity, Anatomy Trains/myofascial meridians)
- Myofascial assessments (e.g., passive and active range of motion, tissue quality)
- Expression of emotion in the body
- Respiratory dynamics
- Dialogue techniques
- Cues for client movement to assist in tissue work and/or to facilitate integrated movement.

Task Six (7%): Demonstrate and teach new possibilities for efficient and optimally integrated movement patterns. The safe and effective performance of this task requires knowledge of:

- Techniques for establishing therapeutic relationship (for example, attentive listening, compassionate contact, receptivity/leadership).
- Dynamics of the client/practitioner relationship (e.g., transference, projection, power differential, boundaries)
- Autonomic indicators
- Gravity
- Anatomy, physiology and kinesiology
- Dialogue techniques
- Mirroring techniques in communication and language, posture and movement.
- Tracking techniques
- Cues for active client movement to assist tissue work
- Perceptual and movement cues to facilitate integrated movement
- Common postural and movement patterns in standing, sitting or walking.
- Movement models (for example, Core/sleeve, G/G-prime, Earth/Sky orientation, continuum of stability-mobility, inhalation vs. exhalation-fixation, Tonic Function model, pendulum motions).

Task Seven (3%): Engage in dialogue (verbal interaction) in order to integrate mental, physical and emotional awareness. The safe and effective performance of this task requires knowledge of:

- Techniques for establishing therapeutic relationship (for example, attentive listening, compassionate contact, receptivity/leadership).
- Dynamics of the client/practitioner relationship (e.g., transference, projection, power differential, boundaries)
- Techniques for clarifying expectations about the process (for example, informed consent, providing information and addressing concerns about the process).
- Autonomic Indicators
- Interviewing techniques
- Pathologies, injuries and medications
- Contraindications
- Client's resources for structural integration work
- Realistic structural integration outcomes
- Expression of emotion in the body
- Dialogue techniques

Task Eight (6%): Monitor the effectiveness of the work, and adapt as necessary. The safe and effective performance of this task requires knowledge of:

- Techniques for establishing therapeutic relationship (e.g., attentive listening, compassionate contact, receptivity/leadership)
- Dynamics of the client/practitioner relationship (e.g., transference, projection, power differential, boundaries)
- Techniques for clarifying expectations about the process (for example, informed consent, providing information and addressing concerns about the process).
- Autonomic indicators
- Pathologies, injuries and medications
- Contraindications
- Client's resources for structural integration work
- Realistic structural integration outcomes
- Geometric order (Optimal Structural Order)
- Tissue characteristics
- Gravity
- Anatomy, physiology and kinesiology
- Structural models (for example The Line, cylinder model, internal/external, tensegrity, Anatomy Trains/myofascial meridians)
- Connective tissue matrix
- Palpation techniques
- Palpatory anatomy
- Myofascial assessments (e.g., passive and active range of motion, tissue quality)
- Respiratory dynamics

- Expression of emotion in the body
- Dialogue techniques
- Principles and fundamentals of structural integration as they pertain to the formulation of a session or series of sessions (e.g., balance, support, connectivity)

Domain V. - Ethics and Professional Issues (8% of exam)

Task One (5%): Conduct practice in a manner consistent with the best interests of the client and applicable codes of ethics and professional standards. The safe and effective performance of this task requires knowledge of:

- Dynamics of the client/practitioner relationship (e.g., transference, projection, power differential, boundaries)
- IASI Code of Ethics and Standards of Practice

Task Two (1%): Maintain a clean, safe and private work environment. The safe and effective performance of this task requires knowledge of:

- Universal precautions
- Hygiene and sanitation

Task Three (2%) Collaborate with other professionals and make referrals that serve the best interests of the client. The safe and effective performance of this task requires knowledge of:

- Practitioner's limits (personal and professional)
- Community resources
- Client's resources for structural integration work

Example Questions

Therapeutic Relationship

While a client is relating their history, you remember a trauma from your own past and become distracted. The best way to respond to this situation is to:

- a. bring yourself to the present moment and continue to listen.
- b. relate your story and tell how you overcame it.
- c. excuse yourself from the room until you can be more present.
- d. ask your client to be silent until you clear your mind.

The best approach is the one in which the practitioner stays in a therapeutic role and facilitates the client's process, therefore (a) is the best answer.

Assessment

In your visual assessment of a client you observe that the client's rib cage is shifted anterior to the pelvis, the lower ribs do not expand on inhale and the elbows are posterior to the hip joints. Based on this observation, you should conclude that the most likely primary source of dysfunction in the body is in the:

- a. horizontal fascial surfaces.
- b. anterior myofascia.
- c. posterior myofascia.
- d. glenohumeral joints.

Shortening in the posterior myofascia will create anterior shift of the rib cage and also contribute to extended arms and lack of movement in the rib cage. Therefore (c) is the best answer.

Strategy

A new client has been diagnosed with scoliosis. In looking ahead to your series of work with this client, you should plan to:

- a. suggest they obtain orthotics.
- b. work differently on the left and right sides of the body.
- c. have a conversation with them about their adolescence.
- d. do minimal movement work until the core has been released.

Scoliosis creates rotational patterns that are different on the left and right sides of the body. Therefore your work needs to address the varying shortness and restrictions of the myofascia and (b) is the best answer.

The Work

The primary goal of finishing a session with neck work is to:

- a. integrate movement between the head and the rest of the body.
- b. create a balanced relationship between the sternocleidomastoid and trapezius.
- c. release any residual trigger points.
- d. assist the client in becoming alert.

The primary purpose of finishing work is to integrate the work of the session with the rest of the body. Therefore (a) is the best answer. Finishing work also balances muscles, helps the client transition to their next activity, and may release trigger points, but the primary purpose is integration.

In the classic Rolfing 10-Series, the 4th hour:

- a. helps create support for the core.
- b. grounds the process of the 3rd hour.
- c. is more important for women than men.
- d. can be difficult for persons with neck pain.

The 4th hour in the classic Rolfing 10-Series is the first of the core sessions, and its purpose is to help create support for the core. Therefore (a) is the best answer. While this session does provide grounding, this is not only related to the 3rd hour. Please note that many questions in this domain refer to the classic Rolfing 10-Series because it is the foundational format for SI work, even while various programs teach different session formulas. It is helpful for exam candidates to know the primary goals of the classic Rolfing 10-Series and how the series they were trained in relates to those goals. An outline of different series approaches is a part of this study guide.

Ethics and Professional Issues

After five Structural Integration sessions with a client who has thoracic outlet syndrome, you happen to meet the doctor who referred the client at the grocery store. The doctor asks how the client is doing. The most appropriate response would be to tell the doctor:

- a. why Structural Integration is an effective means for resolving thoracic outlet syndrome.
- b. to refer to the initial evaluation that you sent.
- c. how the client is changing, and that you are half-way through your work with the client.
- d. that you appreciate the referral and that you welcome a phone call to discuss this case.

Relating information about a client, such as diagnosis or treatment, in a public setting violates the practitioner's duty to protect client confidentiality. Answer (d) is a professional way to acknowledge the referral without disclosing confidential information and is, therefore, the best answer.

Clarifications and Terms by Domain

Domain	Percentage on Exam
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Reminder: You can paste text into the pdf search and locate quotes within articles.

Therapeutic Relationship (15% of exam)

scope of practice

Overall benefits to movement, comfort in one's body, and wellness should be emphasized, without prescriptions or claims of symptom removal. SI practitioners should not claim to treat specific injuries, or claim to design sessions around treating specific injuries. Positive effects on conditions may be part of the client experience, but Structural Integrators should not claim to be specifically treating conditions, or finding the "root cause" of specific conditions.

- "The practice of Structural Integration does not include the diagnosis of illness or disease" (IASI Scope of Practice).
- "Therapeutically, this series is a potent force for clarifying the effects of stress and injury, but Rolf was clear in relating that her work is about healthy people getting better, a more human use of human beings, and the idea that integration transcends the palliation of symptoms" (Davis, 2004, p. 52).
- "...Rolf's work is all about relationships: soft tissue to hard, matter to energy, structure to function, and connective tissue to health and well-being" (Davis, 2004, p. 47).
- "Rolf recognized that a body is organized in concentric layers, that body function can be understood only by realizing the interrelationship of these layers. By addressing layers, the series has a cumulative effect greater than the impact of one session or another. Each session generates a wave of change to the fascial network, affecting all systems of the body simultaneously" (Davis, 2004, p. 49).
- Understanding and writing down a client's past medical history increases the safety of the SI session and is not for diagnosis purposes.
- SI practitioners do not interpret medical diagnostic images or reports, but can be part of a therapeutic alliance by listening to the client's experiences and interpretations of medical processes, tests, diagnostics, etc.
- Before and after photos may be useful as visuals that help a client see changes over time. This is their primary use, as contrasted with promising results to other clients, or using photos as a marketing tool.

practitioner power and responsibility

In the context of an SI session and SI work, the practitioner always holds more power and responsibility than the client.

- "While the client surrenders to vulnerability, we hold a place of authority and power. This power differential is where we must be most careful and temper our actions, language and assessments with sensitivity and care" (Alonzi, 2006, p. 4).

informed consent

Informed consent is a continual process that can always be revisited and clarified. Any pain on the part of the client should be listened to, acknowledged, respected, and processed in the context of a session or series of sessions.

- "The process of informed consent provides both client and therapist with an opportunity to make sure they adequately understand their shared venture. It is a process of communication and clarification" (Delaney, 2003, p. 12).

physical rapport and listening through touch

Physical rapport is distinct from verbal rapport, and is an essential factor in hands-on SI work with clients. Touch can communicate intention; this could be a one-way practitioner agenda, or it could be a listening for important information coming from the client's body.

- "Ultimately, it is the client's body that tells us what is needed, and to receive this message our minds must be open and our hands receptive. When we touch, thinking we know what needs to be done, we can not receive this information" (Keen, 1999, p. 4).
- "...starts with putting your hands on the part of the client's body you're thinking of affecting, and doing absolutely nothing but listening..." (Keen, 1999, p. 4).
- "The term 'appropriate touch' is a term identifying touch that is evidenced by the client being able to have normal breathing patterns and able to be relaxed and open and participating with the practitioner in the work. The tissue engagement hallmarks are: the practitioner is aware of appropriate layers of tissue and is able to 'listen and follow' tissue patterns and changes, rather than making a more willful imposition of the practitioner's idea of how the tissue 'should' change" (Carson and Gaynor, 2011, p. 83).

somatic

In the context of an SI session, somatic information refers to the client's own felt embodied experiences which only the client can fully access and fully understand. SI practitioners honor the somatic realities of their clients and humbly work alongside their clients for greater somatic coherence, organization, and comfort.

self-regulating core, self-organization, and spontaneous reorganization

Each person has inherent self-regulation and self-organization. A skilled SI practitioner allows space for spontaneous reorganization to emerge and proceed at a pace, duration, and depth that is unique and appropriate for each client.

- "...when we put our touch at the service of the client's self-regulating core, we become the willing aids of the body's deepest wisdom. To do this, however, we have to be able to listen, and listening requires that we put aside preconceived ideas." (Keen, 1999, p. 4)
- "Our intention coheres in a vision of postural integrity, symmetry, and equipoise by evoking, rather than imposing, order. Every body has an implicate order awaiting space for expression" (Davis, 2004, p. 49).

dissociation

Internal reorganization can become too intense and change into non-therapeutic dissociation. When the possibility of overwhelm or dissociation arises during a session, the SI practitioner should pause before moving on to other areas of the body, giving space and time for client processing without adding more input. Monitoring, being available for support, and allowing spontaneous movements into comfort will help the client move back into a regulated state.

client empowerment

SI practitioners look for ways to empower clients through the client's own self-expression. The first and best orientation is to patiently listen for a client to make sense and meaning of their own direct experience. Before suggesting or framing a client's experience of SI work, the best strategy is to monitor their overall condition and give them time to speak. When questions are used, open-ended questions are the preferred method for empowering clients and receiving information outside of the practitioner's framing or agenda.

- A skilled SI practitioner refrains from placing an agenda or framing onto the client.
- Listening, monitoring, being available, and asking how you can support the client are the first and best approaches to the changes that take place during an SI session.
- "The role of the Rolfer [SI Practitioner] is to empower the client. The hope of the client is to leave knowing you empowered him." (Alonzi, 2006, p. 4)

embodiment education

SI sessions have the potential to foster client awareness of body sensations and meaningful connections between these sensations and the client's life story.

- "There is fullness to our awareness as the body moves resiliently in expansional unity rather than an aggregation of parts" (Davis, 2004, p. 52).
- "The series is a profound personal education experience, orienteering and aligning with nature. We walk toward new opportunities and choices, embracing movement through life" (Davis, 2004, p. 52).
- "These findings reveal a map of subjective feelings that are categorical, emotional, and embodied" (Nummenmaa et al., 2018, p. 1).
- "This all circles back to, 'How could we be as interactive as possible?' Interactive, in certain phases of my practice, just meant I'd ask the client to move all the time while I'm doing work—that's one way of recruiting some interaction. The way I find to be more meaningful is to go for this experience of what it's like to be them. It's less about doing a pelvic rock, or a knee forward or back, and more about, 'What are you noticing as I work here?' When I ask that question, people usually don't say 'good.' Asking a more open-ended question oftentimes will lead to a more qualitative answer, and if it doesn't

then there's a way to ask follow-up questions about what the experience is like to unpack it further. When I can get into an interaction where we're unpacking what something feels like, how it feels, then there's an easy way to relate it to what the client's individual goals are. "How does this sensation, how does this awareness relate to whatever goal you came in with?" Because I don't know the answer. That's one way to evoke meaning (Akins and Polon, 2019, pp. 101-102).

pain as boundary

When it comes to pain, slow and gentle touch is the best first option for co-creating therapeutic change. Tolerating intense sensations, even through focused breathing, is not recommended as a best first option.

- "Pain is a boundary. It is the body's way of saying 'too fast,' 'too deep,' 'too soon,' etc. ... Pain means we have come to the boundary. Respect it. ... When pain is perceived as a boundary and respected as such, the change is deeper and the client participates more in that change" (Keen, 1999, p. 7-8)

transference

At times, clients may place their own issues onto the SI practitioner. Being aware of this possibility, and learning to move through it skillfully and thoughtfully, will make more change available for the client, and increase the effectiveness of SI sessions.

- "In the transference relationship, it is proposed, unresolved issues that have been stored in the psyche/body come to the surface for the client and are transferred to the practitioner (an internal process gets projected outward onto someone else)" (Delaney, 2003, p. 13).
- "Taking on clients' 'energy' during sessions is a boundary problem and is one of the most profound issues we deal with ... Being fully present to your own space makes it clear what is problematic in your client. I could rephrase all this and say simply that being perceptually present to the space you are in and connected to the ground will give you a clear sense of what is you and what is not, which is always the issue if you are being overly affected by your clients' suffering. The problem is that it is not actually that simple." (Ask, 2009, p. 2).

Assessment (20% of exam)

three paradigms

Bodywork can be viewed as taking place within three paradigms: Relaxation, Corrective, or Holistic. SI practitioners base their work and assessments primarily on the Holistic paradigm, which at times will include aspects of the Relaxation and Corrective paradigms.

- “These paradigms are not exclusive and opposed to one another. They are, in fact, inclusive and interrelated. The divisions between them are neither arbitrary nor rigid. In the hands of many practitioners, various approaches from all three paradigms are often employed and overlap. Although the paradigms are not in opposition to each other, they nevertheless are hierarchically related. Thus, for example, third paradigm approaches can and often accomplish the work of the second and first paradigm approaches” (Maitland, 1992, p. 47).
- The organization and functioning of the whole structure in gravity determines the organization and functioning of any individual structure and the organization and functioning of any individual structure determines the organization and functioning of the whole structure in gravity” (Maitland, 1992, p. 49).

physician approval for specific conditions

SI practitioners should always be careful and conservative when beginning work with new clients, and when new conditions emerge.

- Cerebral Palsy: In general, mild cases of Cerebral Palsy are not contraindicated for SI sessions.
- Cancer: Physician approval should be obtained. "Caution should be used if the client is in current treatment and the cancer diagnosis is acute. If the client is in that stage, then physician clearance should be obtained" (Carson and Gaynor, 2011, p. 86).
- Totally Resolved Cancer: “When treatment has been completed and tissue is healed from treatments, then SI work can be very appropriate. The five-year clean bill of health common cautionary against SI work is not supported by any documentation or research. If the treatments or surgery have resulted in muscular/tissue restrictions, often these can be improved very effectively with SI. Specifically, work with women post mastectomy can usually dramatically improve not only neck, shoulder, and arm function, but also improve rib cage and respiratory movement” (Carson and Gaynor, 2011, p. 86).
- Deep Vein Thrombosis: Physician approval should be obtained. "If the client is currently being treated for embolism or thrombus and there is swelling/discoloration/redness in tissue you should not work on or around the area. If the client is on anticoagulants for recent embolism you should not do tissue work without clearance from the physician. If you are uncertain we suggest obtaining clearance for bodywork from the treating physician" (Carson and Gaynor, 2011, p. 84).
- Schizophrenia: Physician approval should be obtained. "Be cautious with clients in psychotherapy. Their therapist should know they are receiving bodywork. Clients with Bipolar Disorder, or borderline disturbances (on the border between neurosis and full psychosis) warrant caution. Depending on the severity, SI work can trigger destabilizing episodes. If you are uncertain, then the client should obtain the supervision of a

psychologist, psychiatrist, or counselor, and you should have clearance from the physician" (Carson and Gaynor, 2011, p. 85).

results guarantees

SI practitioners should never guarantee results or promise specific outcomes. SI practitioners do not treat specific medical conditions, and must not misrepresent SI services to the public. Part of informed consent is providing accurate information to clients about SI services.

- "Does the client adequately understand the approach the practitioner will be using to assess or address their body? What are the goals of the treatment, the possible consequences, and the limits of practice..." (Delaney, 2003, p. 12)
- "Therapeutically, this series is a potent force for clarifying the effects of stress and injury, but Rolf was clear in relating that her work is about healthy people getting better, a more human use of human beings, and the idea that integration transcends the palliation of symptoms" (Davis, 2004, p. 52).

key anatomical relationships

- Understand the three planes of motion: sagittal, frontal/coronal, and transverse
- "Excessive anterior tilt of the pelvis tends to cause medial rotation of the femurs, while the posterior tilt of the pelvis tends to cause their lateral rotation" (Caspari, 2005, p. 11). Posterior tilt of the pelvis, with laterally rotated femurs, will result in short hamstrings and diminished spinal curves.
- Understand how an anterior shift of the pelvis in the sagittal plane will stretch the plantar flexors of the legs
- Understand how the lumbar extensors and abdominals relate to pelvic tilt; "if you look at a person with an exaggerated anterior tilt from the side, it would appear that the lumbar extensors are tight and the abdominal muscles are weak and elongated, which is true ... In many cases, the abdominal muscles, which appear weak and overstretched, are not weak because they lack sufficient exercise, but are instead weak because they are being neurologically inhibited by the tight lumbar extensors (their antagonists)" (Lowe, 2014).
- Understand the dynamic relationship between flexors and extensors. "A basic test of body structure is its pattern of flexion. If the body is balanced, not only do flexors flex, but the extensors simultaneously extend" (Rolf, 1989, p. 71)
- Flexion and extension describe the action of muscles across joints--a flexing muscle shortens, an extending muscle lengthens ... Flexors and extensors act in pairs--when a part of the body bends (flexes), a reciprocal action of lengthening (extending) will take place on the other side. This is what is meant when a Rolfer says that any and every movement should lengthen the body. In average bodies, this is not what happens. Instead, as a part flexes, the joint tends to shorten and tighten. The movement then lacks stability" (Rolf, 1991, p. 210).
- Understand the relationships between the Piriformis and the Sciatic Nerve. (Lowe, 2017). Using pressure at an oblique angle on the Piriformis avoids direct downward pressure on the sciatic nerve.
- Understand how the Anterior Scalenes must be free to shorten in order for full, integrated inhalation to occur: "Since the appropriate length of these muscles contributes

to lifting of the two upper ribs, the contour of the ribcage is also influenced" (Rolf, 1989, p. 239).

- Understand how a shortened Fibularis Longus and Fibularis Brevis can prevent full dorsiflexion of the foot.

inner line session

In Ida Rolf's Ten Series, Session Four is strongly associated with work on the inner/medial line of the legs. A session focusing on the inner/medial line of the legs includes work on Adductor Magnus and the entire adductor group. According to Caspari, the goals of Session Four include:

- "balance between adductors and abductors," and "clear functional differentiation of the adductors from the hamstrings and quadriceps" (Caspari, 2005, p. 13).
- working on the adductors to positively affect the pelvic floor; "...torsions in the legs yield imbalances in the pelvic floor" (Caspari, 2005, p. 13).
- orienting towards an embodiment education question: "Does the client perceive the pelvic floor?" (Caspari, 2005, p. 12).

dynamic balance

Balance is not a static thing imposed onto a body. It is a dynamic state of being that can become fuller through embodiment education.

- "Why do we want to treat people with Dr. Rolf's method? Is it just for them to be better *aligned* in gravity, or is it for them to *relate better to gravity* so that they can, in turn, interact with others and the environment in more positive and constructive ways..." (Caspari, 2005, p. 19).
- "...we put segments where they belong and make them move appropriately. The mobile stability of the foundation moves with greater resilience, connection, coherence, and ease" (Davis, 2004, p. 52).
- One functional goal for Session 10 is "To optimize the dynamic *line*" (Caspari, 2005, p. 23).

tensegrity, strain distribution, and system exchange

- "All this research is pointing us toward Ida's idea of the system as a whole working together. The body is clearly a strain-distribution machine, not a strain-focusing machine" (Schonfeld, 2014a, p. 19).
- "Vertical structures require spatial definition communicating support through the system" (Davis, 2004, p. 49).
- "One option to random entropy is tensional integrity, or tensegrity - a state of equal distribution of weight, compression, and tension in all members or struts of a structure" (Davis, 2004, p. 48).
- "...all of these are fancy words for snot-like molecules that link the fibers together and provide lubrication and a highly adaptable medium for all the exchange that goes on. These many forms are also the glue that holds everything together. So the fiber is, as we often say in the Rolfing world, a three-dimensional spiderweb. But that spiderweb has dew all over it and that dew is the *snot* that holds it together and really acts like a sponge

soaking up fluid and promoting its flow or its stasis, depending” (Schonfeld, 2014a, p. 17).

tissue layers

One indication of integration is the presence of differentiated, yet interrelated, layers that respond dynamically to fascial matrix signals. Disorganized tissues are undifferentiated and homogenous, lacking in vital flow and fascial matrix exchange. Skillful tissue palpation can be used to find undifferentiated layers that exhibit poor exchange within the fascial matrix.

- Using fingers and the palm of the hand with broad contact is an excellent way for SI practitioners to evaluate the level of exchange and differentiation within chosen fascial territories.
- “Rolf recognized that a body is organized in concentric layers, that body function can be understood only by realizing the interrelationship of these layers. By addressing layers, the series has a cumulative effect greater than the impact of one session or another. Each session generates a wave of change to the fascial network, affecting all systems of the body simultaneously” (Davis, 2004, p. 49).
- “The term ‘appropriate touch’ is a term identifying touch that is evidenced by the client being able to have normal breathing patterns and able to be relaxed and open and participating with the practitioner in the work. The tissue engagement hallmarks are: the practitioner is aware of appropriate layers of tissue and is able to ‘listen and follow’ tissue patterns and changes, rather than making a more willful imposition of the practitioner’s idea of how the tissue ‘should’ change” (Carson and Gaynor, 2011, p. 83).

joints, range of motion, and end-feel

Joints should be viewed as connected within the fascial and soft tissue system, both in stillness and in movement. Joints can be evaluated through passive motion as the SI practitioner guides their movement.

- Healthy joints exhibit fluid movement throughout their range with gradually increasing resistance at the end of their range.
- “The end feel is a type of sensation or feeling which the examiner experienced when the joint is at the end of its available passive range of motion” ([Physiopedia: “End-Feel”](#)).
- Integrated active movements involve the lengthening and expanding of a joint/soft tissue complex, rather than contraction and collapse.
- “Tilting or tipping of joint surfaces accompanies rotation and counter-rotation in the joint above and below. Rotation and strain are reflected throughout the joint system” (Davis, 48).
- “In terms of Rolfing’s conceptual commitment to appropriate relationship consider a joint, for example. It cannot be understood properly as the simple articulation of bony, cartilaginous body-parts. A joint is a relationship among many systems. It is more than the articulation of bones and cartilage. It also must include all the myofascial structures that cross the articulating surfaces. Since fascia is the tissue that connects, it is the tissue of whole body relationship. By structural and fascial implication, a joint is connected to the whole body” (Maitland, 1992, p. 49).

contralateral movement

Efficient and effortless contralateral movement emerges alongside integration of body systems.

- "Is the inner unit working, such that we have contralaterality not only in the limbs and girdles, but also in the spine at the deep level of multifidus and spinal ligaments" (Caspari, 2005, p. 17).
- The functional goals of Sessions 8 and 9 in Ida Rolf's Ten Series include "To improve coordination from the leg to the arm and from the arm to the leg" and "Optimal contralaterality at all three levels (limbs, girdles, and spine)" (Caspari, 2005, p. 22).
- One functional goal for Session 10 is "To optimize contralateral motion" (Caspari, 2005, p. 23).

integration of spine and sacrum

Ida Rolf's view of the sacrum included its integration within the spinal system, in contrast with a sacrum held by the pelvis or restricted by the hips.

- "Retiring extrinsic myofascial patterns allows space for balancing and mobilizing as the hips release restrictive holding on the sacrum, allowing the pelvis to breath, indicating a resilient, stable organization in the base of support - a prerequisite for spinal extension and poising the cranium at the apex" (Davis, 2004, p. 50).
- "We want to see that the movement through the hinges at the ankle, knee and hip transmits through to the sacrotuberous, sacrococcygeal, sacroiliac and sacrolumbar ligaments. This distributes the motion to the sacrum, lumbar, functional lumbodorsal hinge and thoraco-cervical hinges, and cervicals" (Caspari, 2005, p. 16).

somatic refocusing and processing trauma

Refocusing clients on their own sensations and somatic awareness can help them process stressful and disorienting experiences and habits.

- "Temporarily diverting awareness to a positive, safe experience, such as the support of the ground or positive imagery, can allow one to regain inner balance; then a consciously "titrated" process of returning attention to the disturbing experience one little bit at a time may facilitate the assimilation of the experience" (Payne, et al. 2015, p. 15).
- Rapid eye blinking is a strong indicator of the body processing emotion or past trauma.

Strategy (15% of exam)

holistic orientation and series work

SI practitioners work within a holistic paradigm through available changes that are meaningful for their clients. Connecting sessions through a series can provide a container for relational and functional embodied change to emerge over time. Session and series strategies are based on whole body possibilities and relationships that change over time, not just alleviation of specific issues. Clients with chronic, even severe, conditions should be invited into the holistic embodiment that series work makes possible. Availability for resolution can change over time. Increasing organization around an acute or chronic area/segment can provide possibilities for the client's body systems to reorganize. Integration continues between sessions and over weeks, months, even years. As always, monitoring and providing space for clients to meaningfully engage in their embodiment process is the best general strategy. Setting realistic expectations for series work, and understanding the variety of approaches taught by SI education programs, fosters practitioner adaptability and client coherence.

- Understand, on a general level, the inclusion of dialogue themes in each session of the Hellerwork Series.
- Understand, on a general level, the inclusion of psoas work in most sessions of the Soma Series.

superficial to deep to integration

A series of sessions usually proceeds from superficial fascia and structures, to deep/core fascia and structures, to integration. Asymmetry between sides calls for unique approaches on each side, based on what changes are available. Similarly, during integration sessions (Eight, Nine, and Ten in Ida Rolf's Ten Series), a practitioner should strategize based on an assessment of functional relationships, not on which girdle or segment has residual symptoms. Moving through the entire body may bring up powerful sensations and past memories or conditions.

- "The Recipe is a seven-step process -- a sequence of myofascial manipulations perturbing unconscious postural patterns, moving from superficial to deep layers, exposing underlying compensatory holding and tension" (Davis, 2004, p. 49). "Session 8, 9, and 10 require a shift of attention and intention. We are less concerned with parts and segments and more interested in spatial relationships and orientation ... the process of balancing arms and shoulder girdle, and legs and pelvic girdle around the line -- balancing sleeve with core, doing with being" (Davis, 2004, p. 52).
- "(It must be remembered here that the word "symmetry" refers to structure in three dimensions of space rather than two. Thus there is a lateral symmetry, an anterior-posterior symmetry, an upper-lower symmetry. Additionally, and most important of all in humans—systems which are vertically organized and move in space—there is the intrinsic-extrinsic symmetry which is concerned with the relations between deep and superficial myofascial structures in the body.) Balance of these in the human framework fosters lightness and resilience in movement and minimizes structural drag" (Rolf et al., 1989, p. 290).
- "If you are thinking about body efficiency and its creation, it is important to realize that both superficial and deep organization are necessary for free movement. In other words,

balance must exist between the deep ligaments, the bones pictured in Fig. 9-13, and the structures nearer the superficial contour. Elasticity—that is, capacity for adjustment of basic ligamentous structures—depends on freedom for movement of overlying muscles and their spatial relationship to their deeper relatives. As always, in biological situations, this is a circular situation (Rolf et al., 1989, p. 151).

- "In our experience, the finest and most minute tissues of the body can be reached by way of the coarser layers; thus body structure can be integrated and ordered throughout. The start must be from the outside, the periphery. Loosening and stretching of superficial fascia permit liberation of underlying layers. Interaction between these freed intermediary muscles and tendons and deeper fascial layers allows the deepest-lying elements (the bones) to find their place and exercise the function appropriate to their structural design" (Rolf et al., 1989, p. 180).

pelvic girdle, legs, and feet

Organization of the feet, legs, and pelvic girdle provides a conduit for transmission of ground support through the sacrum and spine, and through the entire volume of the body. This allows the client to relate to the support of the ground in fuller and more productive ways.

- A major functional goal of a session that focuses on the feet and legs (Session Two in Ida Rolf's Ten Series) is to provide a base of support.
- "The *functional goals* of Session 2 are: Open the *down* orientation to the substratum ... [and] Improve the quality of support through the legs (Caspari, 2005, p. 9).
- The main *questions of perception* (space-time relationship) [in Session Two] are: Does the client have the capacity to feel or perceive the substratum because *there is* a substratum below? (Caspari, 2005, p. 10).
- A major functional goal of the first core session (Session Four in Ida Rolf's Ten Series) is the differentiation of the legs from the pelvic floor.
- "Pelvic floor strain will be transmitted either inferior, through the hip and legs, or superior through the lumbar ... [and] torsions in the legs yield imbalances in the pelvic floor" (Caspari, 2005, p. 12-13)
- "The *functional goals* of Session 4 are: Independence with stability between the legs and the pelvis ... [and] Competence and coordination of the lower "diaphragms" (plantar, knee, and pelvic) so that they all work together and none of them lock (Caspari, 2005, pp. 12-13).
- A major functional goal of psoas work in Session Five of Ida Rolf's Ten Series is to integrate the legs into the Lumbodorsal Hinge (a functional junction at about the level of T5-T9).
- "Here, we focused on the lumbodorsal hinge -- where the proximal insertion of the psoas meets the central tendon of the diaphragm and the crura -- and where walking meets breathing at the front of the spine. The lumbar were stabilized by the transversus abdominus, multifidus and internal obliques, which gave support to the functional lumbodorsal hinge (T-5/T-9) and the rest of the axial system" (Caspari, 2005, p. 15).
- "The *main functional goals* of Session 5 are: Connect the legs directly to the lumbar ... [and] Take the coordination of the pelvic floor to the next possible level through improved

relationship between the legs and the pelvic floor and balance between psoas and iliacus.

- A major functional goal of Session Six in Ida Rolf's Ten Series is to connect the sacrum to both the spine and the legs.
- "Now, in Session 6, we address again the relationship and coordination of the legs with the pelvis -- and from there with the spine, going up to the thoraco-cervical junction" (Caspari, 2005, p. 15).
- "The *functional goals* of Session 6 are: ... We want to see that the movement through the hinges at the ankle, knee and hip transmits through to the sacrotuberous, sacroiliac, and sacrolumbar ligaments. This distributes motion to the sacrum, lumbar, functional lumbodorsal hinge, and cervicals" (Caspari, 2005, p. 16).

shoulder girdle, head, and neck

Cervical and cranial equipoise relies on a balanced thoracic spine, ribcage, and shoulder girdle for support. Most people exhibit a dysfunctional position of the cranium that is anterior to the thorax. The seventh session of Ida Rolf's Ten Series is the session focused on head and neck, and this is the first time the intention is to relate the head to the sacrum, and the entire body. Perception is an important consideration when working on the head, and the eyes should be free to move within the cranial orbits. Working on the fascia around the eyes can facilitate independent eye movements that are differentiated from movements of the head.

- "the average head is tipped forward and the entire upper cervical structure is displaced anteriorly. The angle of the head defines the degree of misalignment that the cervical spine has had to accept" (Rolf et al., 1989, p. 238); "In most random bodies, the head compensates lower-lying aberrations by being carried too far forward" (Rolf et al., 1989, p. 271).
- "A balanced ribcage and shoulder girdle must be found under a head and neck balanced with reference to its three planes (medial, coronal, and sagittal). The shoulder girdle is the yoke. It follows that until ribcage and shoulder girdle can be balanced, head and neck cannot find the position of equipoise" (Rolf et al., 1989, p. 193).
- "At a certain time in the Structural Integration of a human, it is necessary to concentrate time and effort on his head and neck. Specifically, the goal is to organize the cervical spine. In our method, this concentrated effort is unprofitable unless there have been six hours of work invested in aligning the body below. When the whole human has been prepared, the results are dramatic" (Rolf, 1989, p. 261).
- "The orbit of the eye, which is pyramidal rather than spherical in shape, is only partially filled by the eyeball. Six muscles determine range and direction of the eye, four of them straight and two oblique. It is these muscles, together with fat and nutrient fluids, that fill the posterior orbit. This arrangement offers labile balance. (Rolf et al., 1989, p. 262).

The Work (42%)

self-care, body mechanics, and boundaries

Refinement of technique and body mechanics allows an SI practitioner to work with less stress, more enjoyment, and for longer periods of time. Part of our professional journey is understanding our own strengths and weaknesses, and understanding how to be patient and kind to ourselves. This applies to many aspects of our professional role: physical posture, mental orientation, embodied presence, and awareness of the dynamics between practitioner and client. Self-care is an essential foundation for being available to serve clients.

- Sustainable practitioner habits: Support the torso through your legs and pelvic girdle. Initiate movement and manual pressure application from your center of gravity and your own body weight. Maintain a neutral spine and lean forward. “...as we project in a direction, we are best served to roll through the base of support (the feet, knees, or pelvis when sitting) in that same direction” (Ask, 2009, p. 5).
- Be aware of the tendency to lean against the table for support: “Another tip to maximizing the support of your base is to watch the tendency to lean onto the edge of the table, which effectively makes the table your ‘ground’ and decreases your support and leverage (Ask, 2009, p. 5).
- If your body is hurting, examine how you are performing your work and look for high yield ways to improve body mechanics and dynamic body presence during sessions. “Achy hands and arms might mean you are pushing, rather than ‘sinking’ and letting the tissue come to you before you sink deeper” (Ask, 2009, p. 3).
- “...it is time for listening to how much my body and mind can take and doing it in the most pleasurable and nurturing way (Ask, 2009, p. 2).
- “...commit yourself to continuously exploring your own body use as you work. ...put your own embodiment in the front of your awareness while you work (as opposed to needing to ‘get’ that tissue/structure/pattern in your client). This means you are continually tracking your own sensations as you work: ‘Do I feel comfortable?’” (Ask, 2009, p. 4)
- “Don’t overwork time-wise in a part of the body or session, and take your hands completely off the client frequently” (Ask, 2009, p. 3).
- Sustainable scheduling: know your own limits and energy levels. Squeezing clients into a busy schedule does not serve them, or yourself. “But what seems worse to me is to feel in a continuous hurry, which makes me stressed, in situations like being late with one client, not being able to catch up with the next one, not being able to make a necessary phone call, or having to rush after finishing my work” (Ask, 2009, p. 2).
- Relating to client psychological or energy dynamics: when you feel a shift in how a client relates to you, adapt accordingly and perhaps give a pause for reorientation. “Taking on clients’ ‘energy’ during sessions is a boundary problem and is one of the most profound issues we deal with ... Being fully present to your own space makes it clear what is problematic in your client. I could rephrase all this and say simply that being perceptually present to the space you are in and connected to the ground will give you a clear sense of what is you and what is not, which is always the issue if you are being overly affected by your clients’ suffering. The problem is that it is not actually that simple.” (Ask, 2009, p. 2).

specific techniques and territories

- Seated back work is often done at the end of a session. Clients are able to find support through the legs as they dynamically curve forward. The practitioner provides gliding contact down either side of the spine. The result is an eccentric release of the erector spinae muscles and fascia, as well as embodiment education for the client. "...make broad contact with the tissue either side of the spinous processes and gradually glide inferiorly ... this technique can give a strong unified impression of the whole back" (Smith, 2005, p. 174). The best way to move into extension from the fully flexed seated position is to cue the client to bring their waistline back and unroll their spine, bringing their head up last. "Now with the client bent over, have them push into the lumbar spine with their feet, while maintaining the ischial tuberosities on the bench, just as if they were going to roll all the way up by lifting up the front of the spine" (Maupin, 2005, p. 51).
- Be familiar with common client positions: prone, supine, side-lying, and sitting. In general, know what positions allow the best work on major muscles and body territories. Specifically, understand why work on the Pectineus muscle/fascia is usually best done with the client in a supine position.
- When a client is unsteady at the end of a session, guiding them through a few movements with tracking, and then re-checking their independent movement, is an excellent way to foster integration and closure. "Rolfing tracking techniques are used to gently challenge ligamentous tendons, or perhaps they work more by 'educating' joints proprioceptively into feeling different possible planes of movement" (Smith, 2005, p. 221).
- Ideally, when the Psoas contracts unilaterally, the spine is stabilized by Transverse Abdominis and Multifidus. "Some of the many factors that foster contralaterality include: ... Coordination between transversus abdominis and multifidus. ...the transversus abdominis relates to the front of the lumbar spine, thus affecting the support for the origin of the crura of the diaphragm and the psoas. ... Stabilizing the pelvis via the multifidus / transversus system ... affords dynamic balance" (Caspari 2005, pp. 13-14).
- Excessive posterior tilt can be addressed by lengthening the fascia of the hamstrings, the posterior pelvic floor, and the inferior Rectus Abdominis. "Excessive anterior tilt of the pelvis tends to cause medial rotation of the femurs, while the posterior tilt of the pelvis tends to cause their lateral rotation" (Caspari, 2005, p. 11). Posterior tilt of the pelvis, with laterally rotated femurs, will result in short hamstrings and diminished spinal curves. "The *functional goals* of Session 4 are: Independence with stability between the legs and the pelvis ... [and] Competence and coordination of the lower "diaphragms" (plantar, knee, and pelvic) so that they all work together and none of them lock (Caspari, 2005, pp. 12-13).
- Excessive anterior tilt of the pelvis can be improved by lengthening the plantar fascia, the hamstrings, the fascia of the sacrotuberous ligament, and the fascia along the full length of the back. This protocol addresses the Superficial Back Line and is part of Session Two in the Anatomy Trains 12-Series. (Meyers, 2004, p. 11).
- Understand the relationship of the Piriformis to the sacrum. Appropriate span in the Piriformis fascia results in adaptability of the sacrum. "Note that the muscle attaches to

the anterior facet of the sacrum, crosses the sacroiliac joint, crosses the hip joint, and then eventually attaches to the greater trochanter of the femur" (Lowe, 2017).

- When working on the fasci of the piriformis, an oblique angle of contact avoids compression of the sciatic nerve (Lowe, 2017).
- Understand the relationship between the sacrum, the sacrotuberous ligament, the ischial tuberosity, and the hamstrings. If the hamstrings do not respond to myofascial work, it's likely that the sacrotuberous ligament is involved in the holding pattern. "We want to see that the movement through the hinges at the ankle, knee and hip transmits through to the sacrotuberous, sacrococcygeal, sacroiliac and sacrolumbar ligaments. This distributes the motion to the sacrum, lumbar, functional lumbodorsal hinge and thoraco-cervical hinges, and cervicals" (Caspari, 2005, p. 16).
- Understand the location of the pancreas and the imperative to avoid deep pressure upon it. Deep Psoas work should only be done below the umbilicus in order to avoid damage to the pancreas.
- Lumbar facet joints that are fixed in flexion (fixed open) may be effectively released by applying pressure to the facet as the client is directed to extend the low back. "...with your client in the sitting position, place the knuckle of your right forefinger in the right spinal groove and the knuckle of your left forefinger in the left spinal groove. If the facets are bilaterally fixed open, ask your client to back bend over your knuckles as you apply pressure to both sides and wait for the release (Figure 3.5). If the facets are bilaterally fixed closed, ask your client to forward bend, apply pressure to both facets, and wait for the release (Figure 3.6)" (Maitland, 2001, p. 33).
- According to Ida Rolf, the Psoas is essential for stabilizing the lumbar spine from the front (Rolf, 1989, p. 100).
- When working on feet to develop competent arches, the lateral arch should be established first. "As we have observed, the inner arch rests on the outer arch. Contrary to the usual notion, it is the latter that breaks down first; the inner arch follows. Establishment of a normal foot demands a secure establishment of the outer and lateral arch first" (Rolf, 1989, p. 57).
- Anterior head positioning is common and often creates head and shoulder pain. SI practitioners address dysfunctional head position by establishing balance throughout the body, knowing that the position of the head is part of the entire body and fascial system in gravity. "A balanced ribcage and shoulder girdle must be found under a head and neck balanced with reference to its three planes (medial, coronal, and sagittal). The shoulder girdle is the yoke. It follows that until ribcage and shoulder girdle can be balanced, head and neck cannot find the position of equipoise" (Rolf et al., 1989, p. 193). "At a certain time in the Structural Integration of a human, it is necessary to concentrate time and effort on his head and neck. Specifically, the goal is to organize the cervical spine. In our method, this concentrated effort is unprofitable unless there have been six hours of work invested in aligning the body below. When the whole human has been prepared, the results are dramatic" (Rolf, 1989, p. 261).
- When a client struggles to fully abduct arm to ear, the SI practitioner should first look at the fascial restrictions involving Pectoralis Major, Pectoralis Minor, and Subscapularis. "The Pectoral girdle must be loosely attached to the ribcage in order that free extension

of the arm may be possible. When an arm is raised, the scapula follows it laterally. In a resilient, balanced shoulder, however, the excursion of the scapula is limited by the balance between rhomboids, serrati anterior, and teres. As a result, the scapula maintains its vertical pattern and the arm moves by appropriate adjustment of other important muscles (pectorales and latissimus, for example)" (Rolf, 1989, p. 213).

- Observing a client's walking pattern before and after a session is one way to assess results. "Thus 'tracking' can be very revealing (Fig. 4-14). Loud and clear it talks of the various joints and their competence" (Rolf, 1989, p. 53). "Our balance, the horizontals we want to achieve, comes out of the interaction of movement in three planes: the knees moving forward, the elbows moving sideward, and the head moving upward" (Rolf & Feitis, 1991, p. 25).
- The quality of movement in a joint should be evaluated by feeling for the dynamic tension between stability and flow in active motion (see *joints, range of motion, and end-feel* in the Assessment domain).
- When a restricted layer or direction is found, the SI practitioner shouldn't force change, but should instead search for ways to invoke change, trying a variety of tissue movements in multiple directions and being open to change emerging from any of them (see *strain distribution, holistic orientation, and spontaneous reorganization*).
- Before, during, and after a session, the SI practitioner can evaluate the flow of movement through the client's structure by pressing into the heel of each foot, towards the cranium, while the client is in a supine position. This technique provides evaluative information to both practitioner and client. Ideally there will be a smoother, more even flow of movement through the ankle, knee, hip, and spine at the end of the session.

embodiment education within a therapeutic alliance

- A simple before and after walking check-in allows clients to observe how they feel and become aware of contrasts. Highlighting a client's interoceptive capacities gives them a basic way of understanding their relationship to gravity.
- Asking clients to demonstrate motions from their daily life enables teamwork towards greater integration and ease within meaningful activities chosen by the client. By observing specific movements, the SI practitioner is able to create before and after comparisons that benefit both the client and the practitioner.
- Cueing the client to bring awareness to where you are working can foster receptivity and increased effectiveness of SI work.
- "I'm always inviting them to assess themselves, not in terms of proper or improper or how much is the right amount of motion, but about what's the quality, so that they have their attention placed on some aspect of meaning that we can revisit an hour or so later and ask "what does that do?" It shows them that something has changed, that their experience is modifiable, that they're capable of much more change than they may have originally thought, and it opens the door into what is possible with a little bit of touch and awareness. So I care more about what my clients are doing in terms of assessing themselves; I'm just there to set up the mechanics of it" (Akins and Polon, 2019, p. 104).

- Before intraoral work, the practitioner should explain the technique and obtain informed consent. The client should know that at any time they can raise their hand to communicate their experience of discomfort, pain, or excess pressure.
- Embodiment education within a session opens up possibilities for a client to find a dynamic relationship to proprioception, interoception, and gravity, and to organize around their own "Line." Practitioners do not create a client's "Line," or work directly on it, but rather evoke a unique expression of organization in gravity through the client's education and empowerment.
- Questions about resolution of specific issues are best addressed by recommending a series of sessions that will increase overall structural balance and integrity of the body within gravity (see *scope of practice* and *holistic orientation*).
- While working, the SI practitioner should be monitoring the client's whole body in order to see and feel any increases in tension. The SI practitioner should also ask the client to observe and communicate any tension in the body. This allows the practitioner to appropriately modulate touch and pressure. "All this research is pointing us toward Ida's idea of the system as a whole working together. The body is clearly a strain-distribution machine, not a strain-focusing machine" (Schonfeld, 2014a, p. 19).
- Participatory and active experiences help clients understand what fuller embodiment feels like. For example, with the client in a standing position, placing a hand on the client's head and asking them to lengthen up through the crown of their head while remaining grounded provides the client with an active experience of organization around their Line in gravity.
- Kindly mirroring what you see in the client's structure, then showing them a more organized alternative, then asking them to try it is a basic formula for encouraging awareness and choice.
- When clients claim to be good at tolerating pain and pressure, take the opportunity to promote integrated awareness. Explain that the best results occur with a level of touch that allows clients to fully participate, and to feel what is happening in their body. This process might involve intensity and slight discomfort, but the sensations should not be overwhelming, or pull focus away from the embodiment education within a session.
- Awareness of connections throughout the body is a goal within all SI sessions. When clients comment on feeling how different parts of their body are connected, the SI practitioner should encourage more descriptions in order to foster greater depth and sophistication in the client's body awareness (see *embodiment education* in the Therapeutic Relationship domain).
- Sudden changes and reorganizations call for an assessment of how the client is absorbing and relating to new relationships within themselves. A skilled SI practitioner gives the appropriate amount of space and processing, based on the client's needs.

extracellular matrix (ECM), fascia, and nervous system physiology

- Understand the sympathetic and parasympathetic divisions of the autonomic nervous system, and their signs of activation. Stimulation of digestive functions is a sign of parasympathetic activation.

- Understand fibroblast adaptability; mechanical stress affects collagen production. "When there is a sufficient level of mechanical tension on fibroblasts, production of collagen and other components of the extracellular matrix is high. When tension is reduced, matrix production falls" (Verani et al., 2006, pp. 1864-1865).
- Understand that fascial sheaths surround structures, and that septa connects superficial fascia with periosteum (Rolf, 1989, p. 160).
- A Structural Integration session holds the potential for positive metabolic changes in the connective tissue. One key contributor to this improvement is very likely a normalization of hydration in the ground substance of the extracellular matrix. "...between that is the amorphous gel of hydrophilic (meaning water-soaking and spongy) proteins that are at various stages of snot, if you will excuse me. ...all of these are fancy words for snot-like molecules that link the fibers together and provide lubrication and a highly adaptable medium for all the exchange that goes on. These many forms are also the glue that holds everything together. So the fiber is, as we often say in the Rolfing world, a three-dimensional spiderweb. But that spiderweb has dew all over it and that dew is the snot that holds it together and really acts like a sponge soaking up fluid and promoting its flow or its stasis, depending" (Schonfeld, 2014a, p. 16-17).
- SI practitioners work to create a consistent tone throughout the ECM because this promotes overall organization, exchange, and communication throughout the body. "Cells have to be in the happy, middle place in order to do their job properly. ...When cells are crowded, they can't do their job. When cells are over-stretched, they can't do their job" (Schonfeld, 2014b, p. 41).
- Biological tensegrity distributes strain across multiple anatomical areas (see tensegrity, strain distribution, and system exchange).
- Integrated tissue exhibits exchange and hydration; underneath the SI practitioner's hands this tissue feels smooth, with balanced tension and resilience.

endangerment sites and contraindications

- Extension and rotation of the head reduces blood flow through the vertebral artery, and therefore to the brain. "When the head is held in hyperextension or rotation (or a combination of both) the vertebral arteries can be compressed, causing a reduction in blood flow to the brain" (Lowe, 2019).
- Understand what runs through the popliteal fossa and why it is considered an endangerment site.
- If a client has chronic moderate edema in the legs, you should encourage them to see a medical physician, and continue sessions after they have received medical clearance. "If the condition is chronic and the client is not under medical care you should encourage the client to obtain a medical exam" (Carson and Gaynor, 2011, p. 84).

Ethics and Professional Issues (8%)

boundaries and communication

- Consistent, appropriate boundaries creates a therapeutic space with maximum client safety.
- An SI practitioner with healthy and effective boundaries is better able to process enriching experiences from a session, while letting potentially toxic and exhausting experiences pass through.
- Professional SI practitioners understand the differences between their professional clients and their personal relationships, and will be wary of casually mixing the two.
- BCSIs create positive experiences for clients by engaging only in honest and fair business practices (see the IASI Code of Ethics and Standards of Practice).
- Before touching sensitive areas, the practitioner should communicate the location, intent, and purpose of the touch.
- See also the clarifications regarding boundaries in The Work domain section.

standard precautions

- Between sessions, the practitioner should wash their hands and forearms with warm water and soap, change all linens touched by a client, and disinfect all surfaces touched by a client ([CDC Standard Precautions](#)).

referrals

- SI practitioners offer alternative healthcare services within a wider net of healthcare and biomedical options. SI practitioners should always seek to connect clients with the best possible information, testing, and healthcare without being prescriptive or claiming expertise they are not qualified to provide.
- If a client has a need outside of the SI practitioner's scope of practice, the SI practitioner should refer the client to an appropriate practitioner or resource.
- Chronic issues and symptoms should be referred to a physician. SI practitioners do not diagnose and are not independent from a wider healthcare system.
- SI practitioners have a wide spectrum of touch and extensive experience with tissue characteristics. If a strange growth is seen or felt, the practitioner should help the client understand what is going on, without undue fear or harm. The practitioner should inform the client before the session is finished, help them palpate the mass if possible, and recommend further evaluation by a medical professional before the next session.

Essential Reading

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Certification Board for Structural IntegrationSM

Ethical and Professional Conduct

Introduction

The Certification Board for Structural Integration (CBSISM) is dedicated to the principle that Board Certified Structural Integrators^{CM} must consistently demonstrate high standards of ethical conduct and professional practice. Towards this end, CBSI has adopted the following Code of Ethical and Professional Conduct, and Complaint Resolution Procedures. These are based on the general ethics code of IASISM, and offer guidance for professional conduct with a vehicle for the assessment and appraisal of situations having ethical implications.

Agreement to follow the CBSI Code of Ethical and Professional Conduct is a requirement of certification. The CBSI Board of Directors has the responsibility and authority to investigate and, if indicated, to sanction BCSIs^{CM} who violate this Code. It is the responsibility of each BCSI to become thoroughly familiar with the CBSI Code of Ethics and Professional Conduct, and to guide their professional behavior accordingly. The most recent versions of the CBSI Code of Ethical and Professional Conduct and the CBSI Complaint Resolution Procedures are published and available for download at www.theCBSI.org. CBSI will notify BCSIs of changes to these documents; however, it is the responsibility of each certified individual to comply with the most current standards.

The CBSI Ethics Chair selects and authorizes a committee of three BCSIs, who are not current members of the Board of Directors, to serve in a voluntary capacity to evaluate all claims that a BCSI has violated the CBSI Code of Ethical and Professional Conduct. The Board creates, publishes, and maintains Complaint Resolution Procedures detailing how this committee will receive, evaluate, and report its findings of such claims to the Board of Directors. All decisions about decertification or requirements for corrective actions are the sole responsibility of the CBSI Board of Directors, and their decisions are final.

Certification Board for Structural IntegrationSM

Code of Ethical and Professional Conduct

All BCSIs have a duty to adhere to the CBSI Code of Ethical and Professional Conduct. The Code requires that BCSIs are accountable for ethical and professional conduct in relationship to their clients and in relationship to the profession of Structural Integration, in particular toward their fellow BCSIs.

Ethical and Professional Conduct with Respect to the Client

BCSIs are entrusted with the responsibility to create a professional environment that allows the Structural Integration client to have a rewarding and positive experience. BCSIs will:

1. Ensure client safety, protecting them from unreasonable physical and emotional risk.
This includes, but is not limited to:
 - a. seeking the counsel of peers and other professionals whenever it is in the best interest of their clients, and always when uncertain about the condition of a client;
 - b. recognizing and acknowledging to the client when their needs fall outside the practitioner's scope of practice, and when possible, making recommendations regarding modalities that may better meet the client's needs; and
 - c. maintaining a safe and private physical environment for clients.
2. Support and empower all clients in their growth and evolutionary process with empathy, dignity, and caring.
3. Never discriminate against anyone in providing Structural Integration services because of race, creed, sex, gender, sexual orientation, national origin, or disability.
4. Engage only in honest and fair business practices including but not limited to:
 - a. maintaining accurate records of financial transactions;
 - b. truthful representation of the scope of practice for which one is trained and seeking compensation; and
 - c. providing clients with clear information about fees and payment terms.
5. Ensure that all Structural Integration practice is conducted in an alcohol and drug free environment, with the exception of prescribed pharmaceutical medications.
6. Ensure that client's personal boundaries are always respected, and that the power differential in the relationship is never abused by the practitioner. This includes but is not limited to:
 - a. never engaging in sexual relationships with clients;
 - b. never engaging in sexual or gender-related harassment of any kind; and
 - c. never creating a personally intimidating or offensive environment.
7. Ensure confidentiality of all client information unless specifically permitted in writing by the client.

Ethical and Professional Conduct with Respect to the Profession

BCSIs are entrusted with the responsibility to uphold the integrity and public reputation of the Structural Integration profession, and of the professional certification they hold. BCSIs will:

- 1) Provide only those Structural Integration services for which they were formally trained and have proven competency; or, in the case of advanced/emerging services, those for which they are recognized by their peers as competent to provide in the scope of their practices.
- 2) Never make false claims about accomplishments, qualifications, education, experience, certifications, licenses, or criminal records.
- 3) Follow established CBSI ethics procedures to report any BCSI whose conduct has been inconsistent with this ethics code; and to cooperate fully with any investigation of complaints, whether the BCSI is the complainant, the subject of the complaint, or a witness involved in a complaint, notwithstanding whether the complaint is made by a client or another professional.
- 4) Comply with all national, regional, and local criminal codes.
- 5) Meet eligibility requirements. BCSIs are not required to be members of IASI, but if a person is ineligible for IASI membership, that person is also ineligible for the BCSI certificate program. If a BCSI's professional membership or professional license are removed by IASISM, an IASI Recognized SI education program, any professional Structural Integration group, or any issuing authority such as a state licensing board, that certificant's BCSI status will be revoked due to ineligibility for the certificate program, as stated in the CBSI bylaws.

Certification Board for Structural IntegrationSM

Complaint Resolution Procedures

Direct Complaints

- 1) All complaints to the CBSISM Board must be in writing, signed by the complainant, and mailed to the CBSI Ethics Committee Chair. Phone calls, e-mails, notes, and unsigned messages are not sufficient, though they may be followed up on to encourage a full written complaint. If the complainant is unwilling to put the charges in writing and sign it, the complaint process will not continue.
- 2) After the Ethics Chair receives the written and signed complaint, the Ethics Chair will contact the complainant by phone within 5 business days. At this time, the Ethics Chair will explain the complaint process and will inform the complainant that there will be an investigation. The Ethics Chair will document the phone call.
- 3) If the Ethics Chair cannot contact the complainant by phone within 5 business days of receiving the complaint, they will send a letter by USPS certified mail, summarizing what is usually done (by phone) in step number 2. The letter will clearly state that the complainant must contact the Ethics Chair by phone if they wish for CBSI to proceed with the complaint. If the complainant does not respond within 20 days after receiving the certified letter, or if the certified letter is undeliverable, then the matter is concluded, and the process stops. If the complainant responds to the certified letter within 20 days, the complaint process will continue.
- 4) A file will be created by the Ethics Chair, to include all notes, letters, emails, and any other original documentation.
- 5) The Ethics Chair will send a letter by certified mail to the complainant including the CBSI Code of Ethics and Professional Conduct, the CBSI Complaint Resolution Procedures, and a written summary of the complaint.
- 6) The Ethics Chair will send a letter by certified mail to the respondent including a summary of the complaint, the CBSI Code of Ethics and Professional Conduct, and the CBSI Complaint Resolution Procedures. The respondent will have 20 days to communicate their perspective in writing. If the respondent does not provide a written explanation, their BCSI certification will be revoked.
- 7) The Ethics Committee will investigate the complaint. If deemed appropriate, the Ethics Committee will attempt to mediate a resolution between the complainant and the respondent.

- 8) If, after completion of the investigation, the Ethics Committee determines that mediation and/or negotiation are inappropriate or impossible solutions, the case, along with the Ethics Committee's recommendations, will be presented to the CBSI Board of Directors for disposition. Witnesses, complainant(s), and the respondent will be invited to attend the Board of Directors disposition hearing.
- 9) After disposition and completion of the case, complainant and respondent will be notified via Certified Mail of the CBSI Board of Directors' disposition by the Chair of the Board of Directors.
- 10) All materials collected by the Ethics Committee, including all phone and electronic records, notes, documents, testimonies, and witness accounts, will be included in the Ethics Committee case file archives, which will be maintained confidentially by the CBSI Secretary.
- 11) If a BCSI has their certification revoked, the Board Chair will inform IASI, the practitioner's SI training program, and the practitioner's state licensing board of this change in status.

Removal from Other Organizations

If a BCSI's professional membership, certificate, or license are removed by IASISM, an IASI Recognized SI education program, any professional Structural Integration group, or any issuing authority such as a state licensing board, that certificant's BCSI status will be revoked due to ineligibility for the certificate program, as stated in the CBSI bylaws.



Certification Board for Structural IntegrationSM

Statement on Cultural Competency and Equity

In order to continue to grow and move our profession into its fully integrated potential, we Directors of the Certification Board for Structural Integration (CBSISM) commit to the following:

Cultural Inclusion

We commit to being an inclusive and accessible organization, and working towards an inclusive and accessible profession by encouraging Board Directors and Board Certified Structural Integrators^{CM} (BCSIs^{CM}) to be proactive, sensitive, and responsive to the needs of diverse populations.

Cultural Respect

We commit to acknowledging and understanding the role that differing systems of beliefs, values, rules, and customs may play in the relationships we have with our colleagues and clients.

Equality

We acknowledge that all cultures and groups expressed in the identities and perspectives of our colleagues and clients are entitled to respect and consideration.

Equity

We are committed to making information, resources, and certification opportunities accessible to all Structural Integrators who seek to become BCSIs.

Individual Engagement

Culturally competent individuals have a mixture of beliefs, attitudes, knowledge, experience, and skills that help them to establish trust and rapport in effective communication with others.

The following qualities are representative of culturally competent individuals:

Beliefs and attitudes that demonstrate:

- an awareness and sensitivity to personal cultural heritage
- a respect for, and valuing of, different heritages
- an awareness of personal values and biases, both explicit and implicit, and how they may affect the perception of cultures other than one's own
- comfort with differences that exist between personal culture and other cultures' values and beliefs

Knowledge and experience that demonstrate:

- a good understanding of the power structures in society and how non-dominant groups are treated
- specific efforts made to acquire knowledge and information about the particular group(s) one is working with
- recognition of institutional barriers that prevent members of underrepresented and underserved groups from access to organizational and societal resources

Skills that demonstrate:

- the ability to send and receive verbal and nonverbal messages accurately and appropriately
- a navigation of novel, and possibly uncomfortable, experiences connected to body and race
- grounded and sensitive solidarity with people making good faith efforts to explore inclusivity and equity within Structural Integration and in their own lives
- a capacity for centering people, groups, and perspectives that have been historically marginalized
- humility in regards to one's own position in society
- the ability to intervene appropriately and advocate on behalf of individuals from different and minoritized cultures

Organizational Engagement

As a 501(c)(6) organization composed of certificate holders from around the world and a governing board, CBSI maintains standards of ethical and professional practice for Structural Integration (SI) practitioners. As an organization, CBSI is deeply committed to furthering the collective growth and development of its members and of the Structural Integration profession in cultural competence. Toward that commitment, CBSI will:

- include input from a variety of individuals with diverse backgrounds in any and all ongoing revisions of the Certification Exam for Structural Integration
- facilitate thoughtful and informed professional conversations that specifically address issues of cultural competency
- build stronger, mutually respectful connections between CBSI, IASI Recognized Programs, State Massage and Bodywork Boards, and Structural Integration Practitioners around the world
- recruit and retain a diverse CBSI Board of Directors
- identify and understand the synergies between the profession of Structural Integration and issues of social justice
- create organizational structures and communication/decision-making processes which promote empowerment and inclusivity
- strive to include a diverse international community within our CBSI community
- resolve conflicts and grievances effectively

This document is based on [the cultural competency statement of the ACHA.](#)



IASI Code of Ethics & Standards of Practice

The IASI Code of Ethics is not meant to preclude any professional ethics code of any other individual or collective group, representing any faction of Structural Integration operating in the tradition of Ida P. Rolf, Ph.D. It is instead the general ethics code of IASI and is meant to offer a basic set of boundaries and principles as a guide to acceptable conduct. Ethical behavior is necessary to remain a member in good standing of the IASI.

This Code offers guidance for professional conduct and a vehicle for the assessment and appraisal of situations having ethical implications. This Code also is offered as a guide and an affirmation of the will of the IASI membership and is intended to protect their best interests and reputation while insuring the highest quality professional service to all of their clients.

IASI Code of Ethics

Client/Practitioner Relationship

IASI members are entrusted with the responsibility of creating an environment that allows the Structural Integration Client to have a rewarding and positive experience. IASI members will:

1. Ensure client safety, protecting them from unreasonable physical and emotional risk.
2. Enable and empower all clients in their growth and evolutionary process with empathy, dignity and caring.
3. Never discriminate against anyone in providing Structural Integration services because of race, creed, sex, sexual orientation, national origin or disability.
4. Engage only in honest and fair business practices.
5. Ensure that all Structural Integration practice is conducted in an alcohol and drug free environment.
6. Avoid all sexual relationships with clients.

7. Never engage in sexual harassment of any kind or create a sexually intimidating or offensive environment.

IASI Standards of Practice

All IASI members have a duty to adhere to the IASI Standards of Practice. IASI members will:

1. Only provide Structural Integration services for which they were properly trained, have proven competency and are recognized by their peers as capable to provide such services in the scope of their practices.
2. Accurately and truthfully represent IASI policies, actions and procedures.
3. Use the established IASI ethics procedures to resolve all complaints of conduct regarding charges from a client or charges between members.
4. Ensure client confidentiality and never breach the confidence of IASI, its members or clients.
5. Never misrepresent themselves through information which is based on falsifications regarding accomplishments, qualifications, education, experience, certifications, licenses or criminal records.
6. Never misrepresent the nature and scope of their Structural Integration practice.
7. Provide clarity for clients, peers and public, by initiating the Structural Integration process with reference to the standard ten session series as a tradition inherited from Dr. Ida P. Rolf.
8. Seek advice and counsel of peers and other professionals whenever it is in the best interest of their clients.

Practitioner Conduct

All members of IASI are to be in compliance with all national, regional and local criminal codes. No member may have a felony criminal history. This includes any felony conviction resulting from entering a guilty plea, being found guilty by jury or judge or entering a no contest plea.

Development

Members of IASI should strive to increase their competency, skill and proficiency in the craft of Structural Integration. Members must take responsibility for remaining current on safety, health and developments that are relevant to the

practice of Structural Integration. Members should accomplish this through participation in the following continuing education programs:

1. Clinics and seminars conducted by IASI
2. Programs conducted by or approved by the members individual parent educational institutions
3. Continuing education offered by other Structural Integration schools recognized and approved by IASI
4. Continuing education offered by other organizations recognized as meeting the continuing education requirements by IASI.

Conflict of Interest

Members are responsible for avoiding conflicts of interest, both actual and perceived, while acting in a business capacity for IASI. It is unethical for any member to:

1. Achieve personal gain by using IASI services, their position in office, or authority inherent, implied, or associated with their elected or appointed position in IASI.
2. Incur unsubstantiated, unnecessary and/or unreasonable debt in the name of or while representing IASI.
3. Participate in any decision-making mechanism within IASI that would result in their immediate or future personal gain.

Enforcement of the Code

Enforcement of the IASI Code of Ethics depends on voluntary compliance peer involvement, client participation and the support of all members.

1. Voluntary Compliance
 - a. Any member who believes that another member has violated the IASI Code of Ethics, unless extraordinary circumstances dictate otherwise, should first address the concern directly with that member. The respondent member should comply completely with the satisfaction of the complainant member. A member of the Standards and Ethics Committee may be sought for a consultation and/or negotiation role in this part of the process.
 - b. Any member in personal ethical conflict is required to seek advice and counsel of a peer and/or the IASI Standards and Ethics Committee.
2. Peer Involvement

- a. Any member who, after addressing an Ethics concern directly to another member with unsatisfactory results, is obligated to file a signed, written complaint with the IASI National Headquarters and cooperate fully with all subsequent investigations.
 - b. All members will cooperate fully with any investigation.
3. Client and Member Participation
- a. Any client, member, or person outside of IASI may file an ethics complaint.
 - b. The Executive Director, or his/her assigned representative, will handle all written and signed complaints according to the IASI by-laws.
 - c. Before a complaint is sent to the Standards and Ethics Committee, all procedures will be explained to the complainant, both verbally and in writing.
 - d. All staff and Committee members will support both complainant and respondent.
 - e. Negotiation to a conclusion will be pursued initially when deemed appropriate by the Committee.
 - f. At the end of the investigation, when necessary and appropriate, the Committee will present a detailed report, including recommendations, to the Board of Directors for final disposition.
 - g. All appeals will be made directly to the President of the IASI Board of Directors.



DEFINITION OF STRUCTURAL INTEGRATION

A system to improve structural alignment and enhance ease of movement consisting of organized sessions of manual therapy of the fascial matrix, guided movement, and embodiment education.

SCOPE OF PRACTICE OF STRUCTURAL INTEGRATION

The practice of Structural Integration means the application of a coordinated system of manual therapy, guided movement, and embodiment education to the fascial matrix of the human body, including but not limited to:

1. Assessment of all connective tissues and of global patterns of posture and movement;
2. Organization of a session or series of sessions for treatment of those tissues and patterns;
3. Manual therapy using anatomically precise directional touch combined with specific client movement, including all body parts accessible through the skin, as well as the pelvic floor, oral and nasal cavities; and
4. Client education about body awareness and movement.

The practice of Structural Integration does not include:

1. Massage for relaxation or stress reduction;
2. High velocity joint manipulation;
3. Diagnosis of illness or disease; or
4. Prescription of medical therapeutic agents;
5. Genitals and cavity work in the pelvis (intravaginal, intra-anal).

THE ORGANIZATION OF THE PROFESSION OF STRUCTURAL INTEGRATION

Structural Integration is based on the work of Dr. Ida P. Rolf, from which several related models for delivery of structural integration services have evolved.. Structural integrators are trained at structural integration education programs that meet the standards established by the International Association of Structural Integrators (IASI). Structural integrators demonstrate competence by passing the international certification examination administered by the Certification Board for Structural Integration (CBSI), certifying that they meet Core Competencies for Basic Structural Integration Practice. Board certified structural integrators must practice in accordance with IASI Code of Ethics and Standards for the Practice of Structural Integration. To maintain the designation of Board Certified Structural Integrator (BCSI), structural integrators must meet CBSI's specific continuing education requirements of 72 hours every four years. Structural integrators adhere to ethical practice standards and contraindication protocols. Structural integration services are provided in partnership with clients of all ages in diverse settings such as private offices, ambulatory care and rehabilitation clinics, community health systems, homes, and hospitals and nursing care facilities.

Structural Integration Series

The series from five Structural Integration schools and traditions are outlined on the next three pages. The other schools of SI teach series similar to the classic Rolf series. The table lists the basic goals and territories of each session. The 2005 Yearbook of Structural Integration has several articles on the approaches of these five and many of the other SI training programs. Some of the information below is adapted from, *Developments in Ida Rolf's Recipe*, by Thomas Myers, IASI 2004 Yearbook of Structural Integration.

	Classic Rolfing® Series as taught at the Rolf Institute & the Guild for Structural Integration	Hellerwork® Structural Integration Territories similar to Classic Rolf Series with an 11 th session.	Soma Neuromuscular Integration® Territories similar to Classic Rolf Series but with work on psoas in all sessions and an 11 th
1 st	Superficial layer. Free restrictions to breathing. Free ribs, sternum, clavicles. Differentiate pelvis from torso and femurs. Closing work with back, neck and pelvic lift	Work in the same territories as Classic Rolfing with intention to explore inspiration by freeing restrictions to breathing and balancing torso over pelvis. Movement work with breath and torso over the pelvis.	Freeing the tissue of the rib cage and low back, including psoas and scapularis to create a more upright posture with deeper breath.
2 nd	Superficial layer, free restrictions in feet and lower legs. Establish bilateral support through feet. Balance arches, open innerosseus membranes, lengthen erector spinae group. Closing work with neck and pelvic lift.	Creating support for independence by horizontilizing knees and ankles with work in the superficial fascia of lower legs and feet. Movement work to balance over arches and to walk straight forward.	Creating grounding and connection to reality by working with the lower legs and feet. Introductory work with iliac fascia and iliacus.
3 rd	Superficial layer open lateral line from top to bottom. Create front to back depth. Free shoulders from ribs with work in axial. Closing work with back, neck and pelvic lift.	Enabling reaching out by working with the arms and sides of the body. Vertical alignment of the lateral lines. Movement work to position the arms and release shoulders.	Lengthening the lateral line to expand the breath and create more relaxation and available energy. Further work with the psoas.
4 th	Core layer, create core support by lengthening and defining the mid line of the legs, differentiating adductors and releasing pelvic floor. Deep back work to differentiate spine from core line of support. Closing work with neck and pelvic lift.	Exploring control and surrender by releasing the pelvic floor and aligning the midline of the legs. Movement work to relax the pelvic floor.	Sessions 4, 5 and 6 are seen as having a unified goal lengthening the core midline to create better balance and freedom of movement. In the 4 th session, in addition to the Classic Rolf territories there is additional work with the hamstrings.
5 th	Core layer create transmission of support to pre-vertebral fascia. Lengthen and open quadriceps. Releasing and organizing adductors, obliques, transverses and iliopsoas. Release and organize posterior serratus and rhomboids. Closing work with back, neck and pelvic lift.	Exploring the guts by lengthening the fascia of the front of the core and releasing the deep pelvic floor. Movement work about finding and staying in touch with feelings and walking from the top of the psoas.	Creating connection to the deep core of the torso with abdominal and psoas work.

Classic Roling cont.

- 6th Core session to release the fascia of the backs of the ankles, lower legs, thighs, hips and low back to the lumbar-dorsal hinge. Freeing over stabilization of posterior line to free the sacrum and encourage support to transmit through the pre-vertebral line.
- 7th Core session to align head over the core by freeing fascia of the upper back, thoracic outlet, neck, head and face. Closing work with spine and pelvic lift
- 8th Integrative session could be upper or lower body. If lower work in feet, legs, pelvis and lower torso to integrate core and sleeve and to balance connection of lower body to the lumbar-dorsal hinge. Closing pelvic lift.
- 9th Integrative session could be upper or lower. If uppers work in hands, arms, shoulder girdle, head, neck and upper torso to integrate core and sleeve and balance connection of upper body to the lumbar-dorsal hinge. Closing pelvic lift.
- 10th Integrative session to close the series. Work to horizontalize all joints. Further work with the spine. Closing work with neck and pelvic lift.
- 11th None series ends after 10 sessions

Hellerwork cont.

- Exploring holding back with work on the back of the body to lengthen the back of the core going all the way to the back of the head. Movement work to encourage undulation of the spine.
- Exploring the relationship between head and body and reason and feelings through work with the neck, head and face. Aligning the head in vertical with the shoulders in horizontal. Movement work. Movement work to show head alignment without rigidity.
- Relating with the feminine through work to de-rotate, align support and balance to lower body and pelvis. Movement work to educate movement from the core.
- Relating with the masculine through work to release rotations in the arms shoulders and chest. Movement work to integrate core and sleeve and have the upper body supported by the lower body.
- Working with over all integration and integrity by releasing, aligning and balancing all of the joints. Movement work for moving from the core as a as a fluid whole.
- Completion, self expression and empowerment though reviewing the series in conversation and possibly hands on work and movement work.

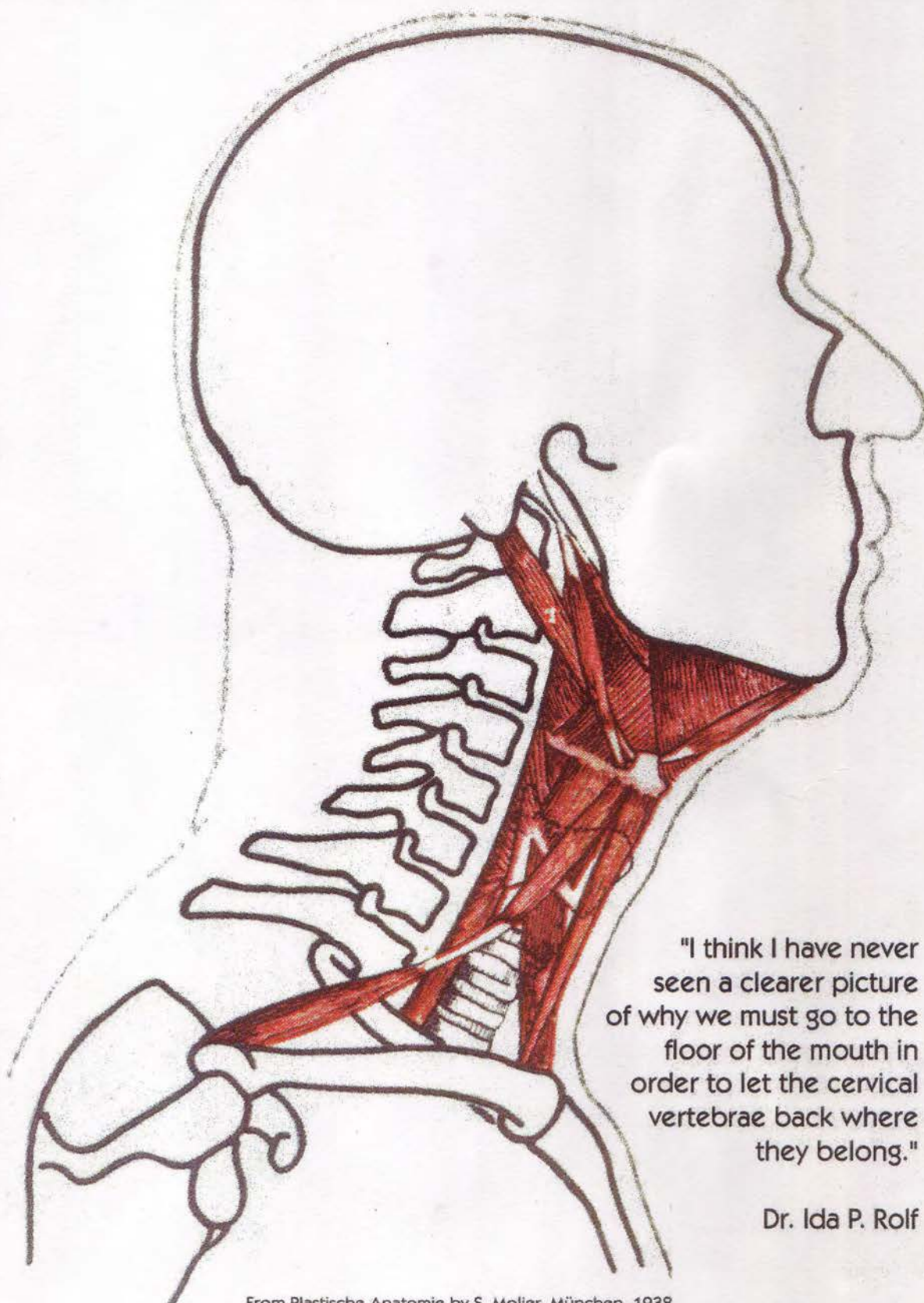
Soma cont.

- Upper core session to release the fascia of the neck, face and head and crural fascia. Goal to create more self reliance and personal power.
- Integrative sessions of 8, 9, 10 work with the entire body to create core/sleeve integration, alignment, and efficiency.
- Work with the arms, scapula and back through to the scapula. Goals are increased rotary function, movement of energy through the arms and down the back.

Kinesis Myofascial Integration®

Based on the anatomical model Anatomy Trains (AT)
This series has the least in common with the Classic
Rolfing Series. The sessions do roughly follow the
same goals as the other series.

1 st	Superficial session addressing the fascia of the Anatomy Trains (AT) superficial front line and the AT front arm lines.	9 th	Integrative session working with the fascia of the AT pelvic girdle and leg line balance.
2 nd	Superficial session working with the fascia of the AT superficial back line and back arm lines.	10 th	Integrative session working with the fascia to balance the AT torso lines.
3 rd	Superficial session working with the fascia of the AT lateral line and arm lines.	11 th	Integrative session working with the fascia of the AT Front and back arm lines.
4 th	Superficial session working with the fascia of the AT spiral line and rotational issues.	12 th	Integrative session working to bring final balance to all of the AT lines
5 th	Core session working with the fascia of the AT deep front line of the lower body.		
6 th	Core session working with the fascia of the AT deep front line of the central body.		
7 th	Core session working with the fascia of the AT deep back line.		
8 th	Integrative session working with the fascia of the AT deep front line and back line of the upper body.		



"I think I have never
seen a clearer picture
of why we must go to the
floor of the mouth in
order to let the cervical
vertebrae back where
they belong."

Dr. Ida P. Rolf

From Plastische Anatomie by S. Moller, München, 1938

Evoking Embodiment Through Structural Integration: An Interview with Michael Polon

Daniel Akins & Michael Polon

This interview was originally solicited for publication in *Structure, Function, Integration: The Journal of the Dr. Ida Rolf Institute*. Published here with the kind permission of their editorial staff; look for this interview in a forthcoming issue.

Abstract

In this interview conducted in September 2019, Michael Polon, faculty with the Dr. Ida Rolf Institute, discusses how current neuroscience can help structural integrators of all experience levels create more meaningful and effective clinical experiences for their clients, both within and outside of series work. He begins by describing various physiological mechanisms involved with the experience of touch from skin to brain and back again, then provides detailed examples of clinical application.

Daniel Akins: In your presentation at the 2018 IASI Symposium, you said that your curiosity as a student, a teacher, and a practitioner has become guided by questions about where our experience of what it's like to live in this body comes from and how the work of structural integration (SI) might affect, support, or change that. You spoke of how input to the brain from our physical form, memories, emotions, expectations, and beliefs interact in complex ways to result in our present moment lived experience. How has your inquiry developed over the year-and-a-half since then?

Michael Polon: That's a long question with lots of factors. My inquiry is still very much alive in all of those aspects which we could bucket into the terms that the neurological world uses—including some in the Rolf world—which would be a “bottom-up” set of interactions and a “top-down” set of interactions. I think it's useful to explore those terms before we get to a big topic, a present moment lived experience, a salient unit of awareness, even in so far as what somebody bases their desires and goals off of, as in why to even pursue the work to begin with. I think it would be helpful to see what the work looks like from a bottom-up view, then from a top-down view, and then show how this experience of touch,

of movement, of therapeutic presence changes the moment-to-moment experience.

DA: Let's start with the bottom-up view.

MP: Bottom-up—another way of saying that would be an “outside-in” view—is how I learned the work initially. It's been my experience, in my early days as a student and a practitioner, that this is how the work was most commonly talked and written about. Bottom-up, in this case, refers to anything that the periphery of the body would deliver “upstream” to the central nervous system, to the brain. Bottom-up is all about how to make impacts on peripheral receptors, peripheral tissues, in so far that that would turn into some kind of “shift” for the client. The way I learned the work originally was almost exclusively bottom; there wasn't that much up. It was the tissue plasticity model where we looked at a body as a collection of tissue patterns—maybe they were considered flaws or faults—and we looked at making some kind of plastic or viscoelastic change to the fabric of that pattern.

DA: I often hear it assumed that freeing fascial restrictions is the primary thing we're doing, and then, secondarily, we educate the client to embody

their altered form. Is that what you typically hear or have heard?

MP: I've heard something to that effect, for sure. My response to that assumption speaks to an overarching principle and an alternate, perhaps more science-supported view: Do we *have* to alter anything in the fascia to create meaningful change? *Can* we alter anything in the fascia that would support long-term change? And how does our work with *people*, as opposed to specific tissues, create short and long-term gains that are hopefully in accordance with what people's goals are?

The bottom-up idea, going back to a fascial distortion model like when I first learned, was looking for deviations in posture, altered range of motion, or places where people hurt and assuming that that was a product of faulty fascia, typically in the terms of an "adhesion." The problem with that approach—which would be all-bottom since there's hardly any information needed, it's just a matter of manipulating the fabric—is that it assumes that what we think we're doing, we're actually doing. There's been some science in the last few decades and which continues to roll out that brings some serious questions to whether or not that's actually possible with the tools we have at our disposal—in our case, manual therapy.

Looking beyond a simple fascial distortion model—like we're just rolling lumps out of pizza dough or ironing creases out of clothing—what's been brought to light by the movement community, whether it's the movement community at the Dr. Ida Rolf Institute® or other movement practitioners in and outside of the SI world, their focus seems to

have been much more of an *informational* model as opposed to a *deformational* model, deformation meaning all we have to do is deform and reshape the fabric. It almost invites a lack of care for the client's experience, which seems ridiculous to say. I don't think there are many practitioners out there that would suggest their clients' experience of the work doesn't matter to them, but *because* it matters to them it's obvious that there's more happening than just the fabric reshaping. With these insights from the movement side of the work and other significant inputs to the field of SI, we start to embrace the idea that it's the information that gets transmitted through a touch exchange that has a lot of potential gain for us to pay attention to so that we can make SI work better in specific ways that are aligned with our client's goal set, like addressing some kind of injury, pain pattern, or something specific to the way that client experiences themselves which may be a little different than the next client that walks into your office.

When we look at touch as information it makes us do a little bit of homework in terms of physiology. We must ask, how does the myofascia or all of the tissues that are around and superficial to it—the skin, the hypodermis or superficial fascia, the adipose layer—how do they listen to touch? What do they experience in terms of neuron sensitivity—whether that's free nerve endings or mechanoreceptors—how does all that tissue peripheral to the myofascia pay attention to the touch information that we give during the session? What does the spinal cord, as the first stop for that information, choose to do with that? It either inhibits it right then and there or transmits it up to the brain, and then what does the

Do we *have* to alter anything in the fascia to create meaningful change? *Can* we alter anything in the fascia that would support long-term change? And how does our work with *people*, as opposed to specific tissues, create short and long-term gains that are hopefully in accordance with what people's goals are?

brain do with it and the various locations to which it will deliver that information?

So that's the bottom-up view: touch as information creating impulses to carry towards the central nervous system that start to make shifts that actually change part of the experience of what it feels like to be us moment-by-moment, second-by-second—as opposed to the long duration that tissues would need to make a shift.

DA: Would you elaborate on some of those specific bottom-up factors that we might be influencing through our work?

MP: Yeah. The classic “fascia is alive” idea that got popularized with Robert’s Schleip’s work, certainly in that 2003 article. I forget the exact title.

DA: The “new neurobiological explanation” articles (Schleip, 2003a, 2003b)?

MP: Yeah, those really opened the door to start looking beyond just mechanical deformation. He outlined a lot of different feedback loops that are affected by touch. The mechanoreceptors that he pointed us to in that article were the popular ones: the Ruffinis, the Pacinis, the Golgi tendon organs, but then he also made allusion to these free nerve endings, these unmyelinated C-fibers. This is a place I’ve actually studied quite a bit, and it seems like the world of affective neuroscience has a lot to teach structural integrators.

We know that the Ruffinis and the Pacinis are scanning for different types of feedback. The unmyelinated C-fibers have typically been classified as *nociceptors*, which aren’t quite “pain receptors,” more like “danger detectors.” Then the world of affective neuroscience has exposed this whole

other big network, almost like a subsystem within the afferent nerves. They’re also unmyelinated, they’re also C-fibers (which just indicates the size and conduction velocity), but they’re referred to as *C-tactile fibers*. When you look at this C-tactile subsystem, what you see is a vast network that outnumbers the rest of the proprioceptors on the order of about seven to one.

Why is this important? The classic network of touch detectors that Schleip pointed us to in 2003 tells us a lot of information in the realm of exteroception, i.e. what’s touching us. It also helps us figure out where we are in space, i.e. proprioception. What the world of affective neuroscience shows us from these C-tactile fibers—which, again, far outnumber the proprioceptive group—they inform us about *interoception*, which is a buzzword in the neuroscience community in the last five to ten years. Interoception is less about, “Where is my body and what is it doing?” It’s more about, “How do I feel about what’s happening?”

Clients, for the most part, seek SI because they’re wanting to feel different. This interoceptive network is the gateway to modifying how it feels to be you on a second-by-second basis. So being aware that this system exists and what types of touch really excite it is a huge value gain for manual therapists and SI practitioners, for sure.

DA: This C-tactile fiber subsystem is located where? You’re saying we directly interact with this network through touch?

MP: Yes. These fibers are there to code for how we feel about the touch that is being applied to us. They are for affective touch, meaning, “How does this touch affect us? How do we feel about things?” They code for what most of the literature calls *pleasant*

I don’t think there are many practitioners out there that would suggest their clients’ experience of the work doesn’t matter to them, but *because* it matters to them it’s obvious that there’s more happening than just the fabric reshaping.

When you look at this C-tactile subsystem, what you see is a vast network that outnumbers the rest of the proprioceptors on the order of about seven to one . . . if you want to create an experience of feeling different, this network of neurons is a great pathway to shifting that. This is stuff we've been doing for 60 years. Now that we know we're doing it, we can do what we do a little better, more efficiently, in ways that are more client-specific.

touch, but pleasant is a subjective term: What feels pleasant to me may not feel pleasant to you; what feels pleasant to me on my hamstrings may be different on my quadriceps; it may be different from Monday to Tuesday; it may be different from practitioner to practitioner, client to client. So, "What does pleasant actually mean?" is a great question. Each client's experience receiving touch, how that fits into their goals, what they think they need, all of those questions go into whether something feels pleasant or not.

This is what ties into meaning. Pleasant, to me, might mean really strong, heavy-handed touch because that's what I think is good for me. Pleasant, to someone else, might be very light, just the weight of their hands, more of a cranial touch, because that's what their nervous system lights up to. It makes our work have to be meaningful to our clients if we want to create the most potential possible. Our clients' experience drives the meaning, not what we think we need to apply to deform the fabric.

DA: Could you help me understand these C-tactile fibers more clearly? My understanding of nociceptors is that they aren't receiving information about pain, per se; they're receiving information about temperature, degree of force, and other such factors, sending that information to the brain which then decides whether or not a threat is present. You're talking about these C-tactile fibers coding for not threat, but for pleasant touch. What is the raw information that these C-tactile fibers are receiving? And is that encoding happening at the level of the

periphery, or is it happening centrally?

MP: Great. The peripheral receptors are only specific to three types of detection: They can either detect chemical stimuli, thermal stimuli, or mechanical stimuli. Some of these receptors can be polymodal, meaning that they scan for more than one type of information. The key to answering the question you asked about where the encoding happens is to look at where the bottom goes to the up-structures. All the peripheral receptor can do is become excited. In this case, these C-tactile fibers are just excited by mechanical pressure. In our case, it's touch.

Touch travels along these unmyelinated nerves, they do their thing into the dorsal horn of the spinal cord. In the spinal cord, some very complex immune/endocrine system factors then decide to either inhibit or facilitate the next neuron in the chain, and that goes up to the brain. The big difference between nociceptors and these interoceptive nerve endings is the delivery site in the brain. The C-tactile fibers end up having synapses in an area in the brain called the *insular cortex*. The insular cortex is not concerned with proprioception, like the *somatosensory cortex*. The insular cortex is involved with creating the experience of *how* we feel in this moment—not necessarily where we feel or if we're moving, like the proprioceptive networks are trying to code for—the insular cortex has everything to do with how you feel.

So if you want to create an experience of feeling different, this network of neurons is a great pathway to shifting that. This is stuff we've been doing for 60 years. Now that we know we're doing it, we can do

what we do a little better, more efficiently, in ways that are more client-specific.

DA: Could you give an example of how this might show up in practice, how we might affect the insular cortex of our clients through these C-tactile fibers?

MP: We're doing this all the time, whether we know it or not. Even if you're doing a classic myofascial technique you're still affecting this highly complex set of neurons, all the way from the mechanoreceptors that Schleip mostly talked about to this subset of C-tactile afferents; any time a body gets touched, all of these neurons are active. The thing I'm most excited about is educating practitioners that there's this huge window of opportunity beyond the viewpoint of just reshaping fabric. If you do a forearm stroke up somebody's hamstrings you're stimulating the Ruffinis, the Pacinis, the free nerve endings that have classically been categorized as nociceptive, but you're also stimulating these tactile nerve endings. The more pleasant (think meaningful or useful) the touch feels, the more it's going to light up in the insular cortex—again, that's the spot that changes how it feels to be me, how it feels to be you, in the moment.

One way to elicit more of a top-down response, to prime the insula to be more interactive with the information it's receiving, is to ask the client, "What does this feel like?" and to be curious about their moment-to-moment experience. Some schools of thought, in terms of SI education, really focus on this part; other schools don't. This is a major opportunity for the practitioner to evoke more meaning out of every intervention by being curious about what's going on in somebody's world of experience. That may include using something like imagery, an inner vision of what's happening under the skin, or even just some descriptors or adjectives about what the touch feels like. Whenever we ask clients to "come to the touch" by qualifying how it feels, we start to prime the insular cortex so that *they* have to "ping" the insular cortex, and then they start to assemble more meaning out of the information that had been going there the whole time.

DA: You're saying that it's essential to the quality

of our work with clients that we are attentive to and prioritize their present-moment experience. Are there any other bottom-up factors that you find important?

MP: Yes, there are several other bottom-up responses that are often at play in bodywork. It's important to take note of a couple of very convenient and, at times, confusing touch feedback loops—confusing because they are often times effective yet short lasting in response to classic SI-style touch. The ones that come to mind both revolve around something that doesn't feel good, like tension or pain. If somebody says they feel tight, or they feel pain somewhere, there are a couple of feedback loops along this bottom-up style of thinking that can trick a practitioner into thinking that they have resolved an adhesion.

When something is hurting or feeling tight, if we stimulate those Pacinis or Ruffinis with either our classic style of SI touch or with some of the faster-moving massage techniques like effleurage or petrissage, or even rubbing a boo-boo on a kid's knee after he or she falls off the slide on the playground—stimulating these mechanoreceptors will inhibit the nociceptors from being able to propagate their signal from bottom to top. It's why we tend to rub things when we hurt them: If we slam our shin into the coffee table, we rub it; if we smack our hands onto the countertop, we shake it so that we inhibit these nociceptive mechanoreceptors. This will commonly shut down something acute or maybe even a persistent pain, giving the practitioner and client the experience that whatever was driving that pain has just resolved. The problem with this feedback loop—which is called *ascending inhibition* and is featured in Melzack and Wall's *gate theory of pain*—is that it's short acting. Sometimes a short acting response of quieting the pain system down does the trick; other times it just isn't enough of a change. This is why we probably don't have to worry about all of these new massager guns putting us out of business any time soon.

Another feedback loop that we can use, especially with heavy-handed touch, can be simply described as *counterirritation*. The neuroscience world likes to refer to this one as *diffuse noxious inhibitory control*, which seems to be changing to *conditioned*

pain modulation. What this means is that if you create more pain temporarily you can evoke an experience out of the brain where it will buffer pain globally in the short term. This gives practitioners an opportunity to flood somebody's nervous system with a lot of discomfort and the aches and pains our client walked into the office with are no longer present. When this happens, it's easy to assume that their change in experience is because we changed their fascia.

Between the ascending inhibition of moving the mechanoreceptors around along with counterirritating by creating a lot of discomfort resulting in a descending response to buffer pain, both of those feedback loops make it seem like we could address whatever was driving the discomfort rather quickly. Without knowing any of this neurology, if you had to answer, "What tissue changed as a result of the touch," answering that question with "the fascia either melted, re-sculpted, or somehow let go of an adhesion" would be a logical answer, especially if you're only looking at what changed in the tissue. If you're looking at what changed in the nervous system you have a lot more plausible answers to choose from and they seem to match the client's experience that these changes can be short-lived.

DA: Do you think fascia has any relevance to our work?

MP: People who study fascia know a whole lot more about that question than I do. I like to study how the nervous system—and by that I don't just mean nerves, I mean the nervous system, which would be inclusive of what is it like to be you—how that whole system is modified through SI.

DA: Do you think that the surrounding tissues of the peripheral nervous system might play some part in the information exchange of touch? For example, if force is carried through tissues to the neurofascial interface.

MP: This is a good place for histology, i.e. the study of tissue, to show up. I think one of the aspects that is confusing for new students, which is who I usually

hang out with in the Roling classes that I teach, is: What is the difference between fascia and connective tissue? And which fasciae are we talking about when we say *myofascia*?

If you look at cross-sections of fascia, skin, or those first few layers of tissue transitions that most texts show, they usually show a very similar thing: the outside of the skin is mostly made up of epithelial tissues, and as you drop down a layer or two just below that you see a mix of epithelial and connective tissue—not quite the myofascia just yet. In that "soup" of the superficial connective tissue, which is just under the skin, is where you see these mechanoreceptors living. As you get lower and lower, you see fewer and fewer mechanoreceptors. When we look at the myofascia, which would be the white stuff on the surface of the red muscles, that stuff seems to have less density of neurons and mechanoreceptors than the layers that are closer to the skin.

The question of what's happening at the neurofascial interface begs another question: Which fascia are we talking about? The terms *connective tissue* and *fascia* are not the same. It seems like the world of fascia research is trying to get unified definitions of what fascia is, what fascia isn't, what this layer of fascia is called versus that layer. From the surface fascia just under the skin, to the adipose layer just under that, to the myofascia, these are all different tissues with different densities of mechanoreceptive nerve endings.

DA: So your main concern is with the client's experience. You aren't saying that fascia does this or does not do that—you're saying that whatever fascia does, these exteroceptive and interoceptive factors are highly relevant to the client's experience whether we intend to affect those factors or not.

MP: Correct. We know that from modalities like craniosacral work, like movement, even something outside of our scope like Kinesio Tape. We know that there are lots of ways to influence the different nerve endings that lay in the superficial tissues. We know there are ways of influencing "what does it feel like to be me?" even when someone doesn't touch me but I just explore my body in different ways, like through movement work. So a good question to ask is, "How

... the quality of the touch, that seems to be what's more responsible for making these big shifts in what it's like to be us. Some of the stories we've seen over the decades about major life transitions with SI—major experiences of maybe what we could call healing and really opening up a new potential of growth for our clients—would have to include more than just proprioception.

does movement work impact fascia versus how does movement work impact what it's like to be you in this moment?" It's questions like that that generated my curiosity into pursuing this stuff further.

DA: We could get into how you came to this, but we haven't gotten into top-down yet.

MP: The top-down conversation would start with questions like, where do these neural circuits end up in the brain? Where do the nociceptive neurons wind up delivering their information? Where do the proprioceptive neurons wind up delivering their information? Where does this whole interoception thing happen?

Proprioception, which is going to be stimulated every time we move and certainly when people touch us in an SI-style of touch, projects into an area of our brain called the somatosensory cortex. The somatosensory cortex is involved with mapping where we experience our bodies to be and how they seem to be moving or not, moment-to-moment. This is a lot about spatial data; it has very little to do with how we feel and more about what the body is doing in terms of movement.

DA: But earlier you seemed to downplay the significance of proprioception.

MP: Proprioception is a critical capacity of a brain, whether it's helping us not fall down, or coordinating a dance move, or a golf swing, or how to sprint off the starting blocks. It's critical to all aspects of

human movement, and its involvement in things like posture and pain seem to be less of a focal point.

DA: So proprioception may not be as relevant to the touch experience, but it's relevant to the client's movement. This might show up more when you stand your client off the table and what they do with that information.

MP: Yeah, so proprioception is always happening and it's always going to be bouncing off of what we're feeling about what's happening, i.e. interoception. Proprioception is critical for things like performance, fall prevention in the elderly, for coordination and learning. When I watched my 14-month old daughter learn to walk her proprioception was firing off like fireworks; it's easy for us to walk once we've mastered how to do it. In terms of touch, the quality as opposed to the quantity, the *quality* of the touch, that seems to be what's more responsible for making these big shifts in what it's like to be us. Some of the stories we've seen over the decades about major life transitions with SI—major experiences of maybe what we could call healing and really opening up a new potential of growth for our clients—would have to include more than just proprioception.

DA: Any specifics you'd like to speak to?

MP: Again, if we define proprioception as this awareness of where we are in space and how that's changing, it's critical to things like coordination, stabilization, or learning new movements. But this

other aspect of anything emotive, anything that has some kind of meaning or valence to us, exists outside of the proprioceptive system.

DA: You're saying that accessing that sense of meaning, through interoception, is critical to how our clients end up processing their proprioception.

MP: It's critical, and I imagine a good term for it would be *interdependent*. Shifts in proprioception—especially for someone for whom proprioception has major consequences, like an athlete, dancer, or performer—have a big emotional meaning. They have some big risk or reward payoff, but it's not the proprioceptive system that's tracking that. The proprioceptive system is just tracking spatial data. It's void of emotion.

The bigger shifts that I hear about in clients, that I heard about through the decades that got me excited to do the work, were more about life-potential opening in new ways as a result of this structural integration process. That's what never made sense to me: If we're just changing proprioception, where does all this other stuff happen? If we're just changing the tension on the fabric network, why does this work mean so much to people?

DA: Have you found some ways to bring a sense of risk and reward to your clients to enhance this interoceptive-proprioceptive interdependence?

MP: I think this has been happening the whole time, for as long as practitioners have been doing

SI. This network of nerves, this C-tactile subsystem, the process of interoception have been around for much longer than we've known about them, which is why really explosive results were happening from the work, even in the '50s and '60s before we knew why they were happening, which brings us to a "side road." Let's come back to the main road, but I want to take a little tour down a side road for a second.

In speaking with some of the first generation Rolfers, in the times of the '50s and '60s classes before these neural networks were really understood, it was easy to attribute what we were seeing happen to what we knew to be the most connective of all of the tissues in the body. So if we're looking for a tissue that goes from one foot to the opposite SI joint to the opposite shoulder again, that is the connective tissue.

Recent studies on how far those tissues actually transmit force and what they do in the presence of "SI amounts" of touch offer some interesting dialogues which we can refrain from here. But as we got into the "decade of the brain" and neurology started becoming more a part of what was included in SI trainings, what we see now is a network of connective relationships that aren't in the connective tissue. They're actually in the neural tissue, and information from one foot to the other SI joint to the opposite shoulder again travels at lightning speed and is capable of making radical shifts of experience in terms of embodiment, of movement, of pain, of what it's like to be you, all without any fascia needing to change. Now that we, in 2019, know that this stuff is there we can start exploring how our touch,

My sense of possibility for the work has burst open into what seems almost boundless, limitless. Whether we are addressing something as simple as postural shape, a pain pattern, a limitation to performance, or some fixation of self-identity, all of those experiences are now well within what's possible to shift . . . but we need to look to neurology to figure out why that is so.

This is not about neural manipulation versus fascial manipulation. This is about working with a broad system of experience which is mitigated through lots of different tissues and brain regions to create the experience of what's happening in the moment for the client.

movement work, even just our therapeutic presence changes that “informational connective tissue” as opposed to the fibers of the fascia system.

Since we only had fascia as an answer, then of course we used fascia to explain why we saw such radical shifts in behavior, but now that we have neurology it actually gives us more insight and provides a better understanding as to not only what has been happening, but what is possible with the work. That's where I'm really excited.

DA: Has your sense of possibility for the work changed?

MP: My sense of possibility for the work has burst open into what seems almost boundless, limitless. Whether we are addressing something as simple as postural shape, a pain pattern, a limitation to performance, or some fixation of self-identity, all of those experiences are now well within what's possible to shift in a meaningful relationship, especially throughout a series of work with a present, patient, empathic, and attuned practitioner—but we need to look to neurology to figure out why that is so.

Any time we are working through touch, we're working with parts of this interoceptive system that reach into past experience, into relational presence, and include major developmental experiences like attachment style. This is why we've seen such success in supporting people who have experienced trauma, because touch is so informational at this emotional level and it has much more to do with this moment-to-moment attuned, relational presence as it does some kind of technical accuracy to target one tissue over another tissue. As soon as we use touch and evoke some kind of meaning from the client's perspective, even if it's just curiosity and

bringing them to the experience of what it feels like to be receiving the touch in the moment, we start to light up the neurology of what may have been limiting these pain patterns, these postural patterns, even these emotive patterns of perhaps not wanting to be seen, or not feeling proud and elegant, or not allowing oneself to take up space. All of those aspects seem to be more of what changes posture than just simply a tight muscle.

DA: A fear I often hear when about relating science to SI is that it will lead to us limiting our work to symptom amelioration, or we'll become over-focused on “fixing.” But it sounds to me like you're just using modern neurobiological insights to bring us back to a more holistic take on the work, a more transformative approach.

MP: That is very well said. Having a focus on just one tissue over another tissue, whether that's nerves, viscera, cranial fluids, or fascia seems to be at odds with the idea of holism. Part of what I love about this neurocentric approach to structural integration is that we look at what makes somebody whole. It's not just their nerves, that's not what this is about. This is not about neural manipulation versus fascial manipulation. This is about working with a broad system of experience which is mitigated through lots of different tissues and brain regions to create the experience of what's happening in the moment for the client.

To truly take a holistic approach, we wouldn't favor one tissue over another tissue. We wouldn't favor this technique over that technique; we would favor what means the most to the client, and that might take a little detective work or homework to realize what is motivating someone to come to us.

Why is standing taller important to them? Why is not having back pain important to them, or whatever the presenting goal or desire is on first glance? That's a way we can evoke meaning and bring our clients more to each session and every series, as opposed to us implying or imposing our own ideas about what we think someone else should have more or less of.

DA: To bring us back to the “main road,” you're saying that tuning into the client's sense of meaning, what they're coming to us for, allows us to leverage their own sense of risk and reward to help them embody their desired outcome?

MP: Yeah. I think what it does is reveal how much of a person's experience is modifiable. It shows us how big the menu is in terms of what is possible with the work; we aren't limited to loosening this muscle, re-sculpting that piece of fascia, or determining that one posture is better for this other person and a different posture is for someone else, or that everybody should be in the same posture—there's lots of research that would challenge all of those ideas. If we come to our work humbled, in a position of humility and in true service of what a client really wants—not just what they say they want, but what might be under why they want it—then we can start to tailor our work with much more meaning, knowing that there is this network of nerves and brain responses that are working for us to make these goals happen.

DA: Suppose a client comes to you saying they want their fascia realigned; you wouldn't necessarily try to convince them whether or not that's important. You would be more interested in what they imagine fascial manipulation or alignment would do for them, and then you'd go from there. Is that correct?

MP: Absolutely. The truth is, I have no idea what's happening to their fascia when I work on them. When I'm working with someone, the only way I can really know what they're experiencing is to ask. I'm also aware that what they tell me will be filtered through their personality, language, beliefs, culture, and other factors that shape their inner world rather than just the biology of what's happening in

their tissue. The best I can do is just be humble and curious.

If somebody comes in with a goal, whether they want to deadlift better, warrior pose better, ski better, stop their back pain, or have their fascia realigned, I still ask why those things are important. There's usually some value that those things are in service of. Whether it's feeling free, feeling strong, having their bodies experience some enjoyment in their activities—that's the stuff I build sessions and series in service of: the deeper values. Now that I know that there is a system of nerves scanning for my touch input that deliver right into the meaning-making structures of what it's like to be my client, all of those goals are much more reachable and I don't have to manipulate through one tissue or another to get there.

DA: Since you're guided by the client's experience you can just be with the complexity; you don't have to figure it all out or pretend to.

MP: Knowing the client's experience and how their experience is or isn't in service of their goals gives me so much more insight than the strategies, techniques, or goals of the letter of the Recipe ever did.

DA: Do you still do series-based work? If so, are you able to use your current understandings to evoke more meaning out of series work?

MP: Do I do series work? All the time. Not exclusively, but still all the time. Do I think this approach evokes more meaning in series work?

To truly take a holistic approach, we wouldn't favor one tissue over another tissue. We wouldn't favor this technique over that technique; we would favor what means the most to the client . . .

Absolutely. I think this is something that even new practitioners could include. It's hard in the beginning if you're under an imperative to do every technique to every part of the body that you've seen every one of your teachers ever do. To work in a way that is attuned with what that client is wanting out of their session with you in the moment, prioritizing what would be most helpful is actually a lot simpler than trying to go through every technique hoping that a few of them land.

DA: Are you saying that by prioritizing the client's experience we can still proceed through the series, making more relevant choices for the client in every session throughout?

MP: Right. What this is not, is every client gets every session exactly how they want it. This is not, "Tell me how to work on you in the way that's the most pleasurable." This is using their experience of what it's like to receive the work in service of the themes or goals of the session, which may or may not be a 10-series, a 12-series, a whatever series. Maybe you only get three or five sessions with someone. How do you prioritize? While this may sound like an advanced concept to someone who's coming from the ABCs of the original series, I don't think it's that far off base.

The students that I mentor in my private practice, I see a lot of ways of applying these ideas even if we follow the letter of the Recipe, how to evoke more meaning each step of the way, stroke-by-stroke, intervention-by-intervention, and how to anchor it into an "integratable" experience—if that's a word.

DA: Making the experience integratable. I think that's a useful concept.

MP: My sense of evoking the client's present experience throughout each moment of the session has been that the results of the work integrate on the fly. We don't do an hour's worth of work and then try to integrate it all at the end; if we bring the nervous system along with us frame-by-frame, it's really quite easy to learn along the way as opposed to trying to figure out why I feel so disorganized all at the end.

DA: We're always integrating.

MP: I think we can be. If we bring our clients along, we can be. If we leave them in a more passive state, I think the work can be confusing when the volume of work adds up. When the volume of work adds up before there are enough check-ins, pauses, and digesting points, the work feels like a flooding of information, as opposed to bringing someone on a journey with checkpoints of salience and integration along the way.

DA: What if your client has had a long day and they don't want to stay engaged? How do you reconcile their present moment experience with their big picture goals?

MP: I might ask them what feels more important to them in the moment and why, and then maybe even set a context around, "Well, for the next hour," or whatever amount of time, "we're here to do this, and the best way I know to lead us through this process would be to include your awareness of what's

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happening, so if you’re up for it, I think we would get a lot more value out of staying engaged throughout the process.” And then, of course, it’s up to them.

DA: Is there anything else top-down you want to speak to?

MP: Our work is never not top-down; we are always creating top down experiences. When you follow the bottom-up to top-down metaphor far enough it becomes confusing where the line is when bottom-up becomes top-down. To keep it simple-ish, I think a worthwhile distinction is that, at some point, this information is coming upstream into various parts of the central nervous system and then the spinal cord or brain does something about that. There’s all this *affect* coming in from our work, and then there’s an *effect*, a response.

If we take a tissue-centric view of the effects of our work there seems to be some temporary hydration in the extracellular matrix; that comes from the Stecco group in Europe. That’s worth studying, and there’s so much more to it. We know that some of the effects of our work are going to be a temporary modulation of pain—again, back to the idea of why we rub on things. Another effect of our work is that we are going to elicit a sharper sense of proprioception: The more input we get into our proprioceptive neurons, the more our mapping systems light up different parts of the brain and we start to see ourselves, feel ourselves, where we are, how we move more clearly. That has some interesting ramifications for the persistent pain population.

The next piece of the top-down part—the part that I’m most excited about—is the effect response about what it’s like to be us in this moment: The top-down expression of interoception. This is a big component of the work. We can see it any time we

take a break from our hands-on work, any time we’re asking someone how something feels or what they’re noticing in response to our touch or movement, and definitely, like you asked about, what’s happening at the end of a session. The way in which people report feeling is very filtered through this interoception, this “How do I feel?” Even when somebody says, “I feel good. I feel better. I feel lighter. I feel less pain.” All of those qualities of lighter, better, good, less pain are coming through a very heavily interoceptive influence. That’s all interoceptive output.

DA: Is all interoceptive output equally useful to the client? For example, if a client says, “I feel good,” every time they stand up. Are you satisfied with that? Do you think there’s more possible for them? Do you push them to inquire further?

MP: I always think there’s more possible. I also try to be humble enough to know that I don’t know what “good” means. I imagine good means pleasant, or more pleasant than before. Maybe they’re just being polite? I always want to know, if somebody says they feel good, “What’s good? How do you feel good? What’s good about the way you feel?” For a client to answer that question they have to ask themselves, and in doing so they ping their interoceptive feed to get more in tune with what feels good, why they feel good, why they said that, and that highlights the circuitry that anchors their integration of the changes they get.

This all circles back to, “How could we be as interactive as possible?” Interactive, in certain phases of my practice, just meant I’d ask the client to move all the time while I’m doing work—that’s one way of recruiting some interaction. The way I find to be more meaningful is to go for this experience of what it’s like to be them. It’s less about doing a pelvic rock,

or a knee forward or back, and more about, “What are you noticing as I work here?” When I ask that question, people usually don’t say “good.” Asking a more open-ended question oftentimes will lead to a more qualitative answer, and if it doesn’t then there’s a way to ask follow-up questions about what the experience is like to unpack it further.

When I can get into an interaction where we’re unpacking what something feels like, how it feels, then there’s an easy way to relate it to what the client’s individual goals are. “How does this sensation, how does this awareness relate to whatever goal you came in with?” Because I don’t know the answer. That’s one way to evoke meaning.

DA: Say someone came in with persistent low back pain, you have them supine, you’re working near their ASIS, and you ask them what they’re noticing and they say, “It hurts.” How might you relate that to their goal of resolving low back pain?

MP: That’s a couple steps down the line. First I may say something like, “Does it hurt right where I’m pushing? Does it hurt where the back pain is that you’re coming in with?” I want to know more about what hurt feels like to them. How does it hurt? Does it hurt like, burn, ache, or something else? Maybe it even hurts like it’s scary and they want me to stop. How would I know? I want to unpack their immediate experience of what is hurting and how that feels.

The point is just to bring them into the experience. I think bringing them into the experience does a couple things. One is, it helps them see that there are other ways of experiencing the immediate hurt. It also shows that their practitioner cares, which is a huge element of our work. If you imagine a bodyworker who isn’t interested in their clients’ experience of the work versus one who is, I think it’s an easy assumption to make as to which practitioner will get better results, regardless of technical skill.

A question I’ve asked in classes I’ve taught at the Rolf Institute over the years is, “What were the most important or impactful qualities of your practitioners?” Students all answered in terms that indicated how much their practitioners cared about them. Just knowing that somebody cares, that the

touch is in service of extending care and support actually hacks into this interoceptive network via the attachment system. Touch means different things to different people; to have it mean, “I care about what’s happening for you in service of you getting what you want out of these sessions” goes a huge way into setting the stage for not only a noticeable shift in experience, but a long-lasting impression of how okay they are in the world.

DA: Besides pain, another common reason people seek out structural integration is concerns about posture. They might think their posture results in certain symptoms. They might have aesthetic concerns about their posture or want to appear a certain way in the world. How do you relate with those clients?

MP: I think there’s a lot of confusion over what Dr. Rolf may have meant or what some of the first or second generation teachers took from what she said. Posture shares some etymology with *position*, which might imply this sort of “you put it there and leave it there” idea. That isn’t what posture is; it’s way more dynamic than that. Maybe it’s an artifact of our classroom teaching, this before-and-after picture model.

It turns out posture is way more context dependent. That’s the big key here. Is there a perfect posture for everybody? No. The saying we’re hearing now is “the best posture is the next posture” because we’re not meant to be in any one posture for very long at all. So to answer your question about what I do with clients who want something to change in their posture, again I go back to why. Why do they want that? If they say, “My neck always hurts because I have terrible posture,” then I say, “There are definitely things we can do to change both your neck hurting and your posture but they might not be related as much as we thought, so let’s see if we can get your neck to stop hurting and maybe we’ll change your posture, too.” And then I would ask how that sounds. If people are rigid with what they want me to do, I ultimately am in service of what they’re wanting and why they’re wanting it, so I may find another route in.

Things like normal anatomical variation, cultural

norms, gender norms, injury history, all kinds of factors modify why someone would choose this posture over that posture. This biopsychosocial idea of posture helps us see it as a biologically-driven event, psychologically-driven, and it's even driven through the social system. The shapes of your bones, the length of your muscles, your tibia-to-femur ratio, things like that are going to help determine your posture. It's also determined in the psychological domain: how your nervous system interprets signals and when it chooses to act on them, what it chooses to suppress. Some of it may be genetic, some of it may be learned, and some of it may just be the state of arousal you're in that day. The social aspect shows up in, "My posture's different when I'm with my family, or when I'm with my boss, or when I'm playing ultimate frisbee versus when I'm trying to sit in an airplane and get work done for three hours."

Posture is biologically mediated, it's psychologically mediated, it's even mediated through what environmental context we're in at that moment and who else is around in that social domain. So to think that one posture is going to work for everyone, that every individual has their ideal posture is a bit unreasonable. We have lots of information from the world of sports performance, strength and conditioning coaching, all of the pain science literature that suggests posture is best when it's dynamic, when it's adaptable to different conditions for different purposes. Thinking that SI is designed to instill an ideal posture is, I think, a big miss of some of this potential we referenced earlier.

DA: We could think of posture as an expression of adaptability. How rigid are we, or how adaptable are we?

MP: I think all of this points back to, is a change in posture the only goal of SI? I imagine most SI practitioners would say "no," yet so much of what we measure as results, certainly in terms of before-and-after, do seem to be in postural achievements. That in and of itself makes me question, what are we really wanting to see and then how do we know when it happens? What are clients coming in with and how do we determine when we've been successful? That information seems like it would not exist on a series

of before-and-after postural assessment photos. I have thought for a long time that it would be fun to do a series of before-and-after pictures to see how various experiences may modify posture: photos before and after a yoga class, or three sets of kettlebell swings, a nap, or some time in meditation.

DA: Couldn't changes in posture over time just be an indication that change of some kind has occurred? I mean, it doesn't necessarily indicate that pain has changed, for example, but it does show change in general.

MP: Sure. I think a lot of the information exchange that happens during an SI session has the potential to modify posture, but the world of science has and will always disregard before-and-after pictures as evidence of any kind of meaningful outcome, and there are good reasons for that.

DA: Sure, because there could be many factors that contribute to long-term posture change and actual experiences may vary. But with so many practitioners over the decades showing photos of significant posture change correlating with SI series work, even though that evidence may not be the most scientifically valid that's still a large volume of low-quality evidence indicating some kind of change.

MP: Yeah, that's a game that I don't like to play, but I know in terms of advertising, marketing, or Instagramming, having a lot of visual evidence is important for some people. I don't know how to talk about that because posture is not that important for me. I like qualitative evidence, testimonials, word-of-mouth—I think it's a better transformation metric than position difference. After many years of study I still don't really know when, how, for whom, and why posture matters or not. Sometimes posture gets "worse," whatever that means, but what if that shift was in service of a client becoming more authentically themselves?

DA: What assessments do you use these days to guide your work? Do you do any visual assessment? Palpation?

MP: I do both, and I love that you asked that question. Certainly the visual and movement assessments are pretty standard pre-session routine; it's more a matter of why I do them. I'm less interested in looking at things like scapular mechanics, pelvic motion with knee bends, Stork tests, or anything like that. I'm more interested in using these pre-session assessments to set a baseline of experience for clients: "What's it like when you bring your arms up over your head in this jumping jack motion? What does it feel like through your low back when you do these knee bends?" That way we have a metric on what it feels like now, after. I'm aware that my eyes and hands are only so sensitive—maybe these are my shortcomings as a practitioner—but there is a lot of research out there that challenges the reliability of both visual and palpatory assessment amongst even experienced manual therapists. And still, meaningful change to the lived experience could happen radically and I wouldn't be able to see it at all.

My interest has moved away from what I think I see and feel to what I can know about what someone feels like on the inside. So I use those assessments pre- and post-session to set baselines. What's it like at the beginning, and what does it feel like now? It's more about qualitative inner experience, less about me trying to figure out if my client got a couple of degrees more motion. We've got good research that says maybe that's not so meaningful anyway, in terms of pain or injury risk. My hands are probably not sensitive enough to feel a millimeter or two more motion here or there, but I'm very interested in what it feels like for someone to live in that body.

DA: So for example, if you're doing a classical first session, I imagine you might start by inviting the client to experience their breath and elaborate on what they notice. Then you get them on the table to do some work guided by their values and their experience, inviting them to go deeper into their felt sense as you're working, and then you stand them back up and ask them what they feel. Does that sound something like how you might work? Would you add or change anything to that?

MP: I'm sure I could add or tweak a couple things,

but in general that's the approach. I want my clients to be active in the assessment. It's almost like *they* are going to do the assessment. I set up the, you know, "face this way and do that thing," or "feel your breath here," or "what's it like in this direction?" But I'm always inviting them to assess themselves, not in terms of proper or improper or how much is the right amount of motion, but about what's the quality, so that they have their attention placed on some aspect of meaning that we can revisit an hour or so later and ask "what does that do?" It shows them that something has changed, that their experience is modifiable, that they're capable of much more change than they may have originally thought, and it opens the door into what is possible with a little bit of touch and awareness. So I care more about what my clients are doing in terms of assessing themselves; I'm just there to set up the mechanics of it.

DA: Do you do frequent assessments throughout your sessions?

MP: The way I work these days, it's almost an ongoing dialogue. Every few minutes is a check in around what's it like now? What are you noticing now? How was that different from before? I've noticed that the longer I practice, the less need for certainty I have. I'm much more willing to go along with my clients' inner world of experience and not have the mechanics of the session lined out in protocol heading into it. I have themes on my radar of what's important in terms of whichever session we're on. I have the meta-themes of why they're coming to me, what their goals are for the work, and that keeps us tethered to something that looks like the Recipe but it's much more easily tailored to individual clients' inner worlds than me just applying the same thing to everybody.

DA: Would you encourage practitioners to invest less time in studying technique and spend more time developing their interpersonal skills?

MP: Far be it from me to tell anyone how they should do their practice. All I can really report on fairly is what's made the most difference for me. During the first few years of my practice I was on a

I'm always inviting [the client] to assess themselves, not in terms of proper or improper or how much is the right amount of motion, but about what's the quality, so that they have their attention placed on some aspect of meaning that we can revisit an hour or so later and ask "what does that do?" It shows them that something has changed, that their experience is modifiable, that they're capable of much more change than they may have originally thought, and it opens the door into what is possible with a little bit of touch and awareness.

continuing education tear, I wanted every technique from every modality possible, but I can tell you that the results of really changing people's worlds with this work came about not so much through the addition of techniques but more through learning how to relate with people. Everybody's needs and interests are different when they first start off with the work, but in terms of this interoceptive network and this neurocentric approach to SI as a field of study, all of that would indicate it's probably less about what we do and more about how we do it, and most importantly, why does this matter to our clients' goals? If techniques can help with that, then great. In my experience, techniques are a lot about *what* to do and less about *why* this ties into the individual client's needs or wishes. Why not set the bar high?

DA: The relational aspects of our work preclude our effectiveness no matter what techniques we're using, however highly-refined touch skills might allow us more options that speak to specific client concerns. Would you agree?

MP: Sure. While these specialized techniques or approaches from different modalities probably have some efficacy for different conditions, what they all have in common—whether it's cranial touch or visceral touch or any of the things that SI students

typically look towards for more training—they all make us more confident practitioners. In so far as techniques help us show up with a sense of confidence, we can articulate why we're doing what we're doing with some kind of value for our clients. Different techniques are still going to have similar effects on the interoceptive experience of our clients. Being technically sound in terms of touch skills is great, but having these "soft skills" of how to relate to people via these heavily technical touch skills, that's the high fruit on the tree in my book. For every idea that this is the one technique that addresses this condition the best, there will probably be a whole lot of research that would refute that. I like to think of having lots of techniques as having lots of ways to skillfully induce new sensations and experiences.

DA: Well, then what differentiates the touch of an SI practitioner from, say, the hug of a loving spouse?

MP: Great question. Our highly-refined touch skills in the context of a therapeutic relationship have contextually different meaning than the touch of a lover. The metrics of the touch—depth, speed, direction, etc.—are only a small component of how the touch impacts the nervous system. The exact same touch in two different contexts can have radically different outcomes. What differentiates a slow caress on your neck from your lover versus one

That's where my excitement has been, in the service of evolving Dr. Rolf's work, vision, and the power and potential of this work . . . If the work is about helping people grow and evolve, then the work needs to grow and evolve, as well.

from the creep behind you at the grocery store? It's the context, the meaning. That's a great example of how bottom-up and top-down are different.

Given our progression through the themes of the series, whether it's 10, 12, 13, or however many sessions you work under, there are a couple of factors that are in favor of an SI series of touch over other forms of bodywork. One is that we get all over the terrain of somebody's physical structure throughout the course of the series. We have multiple passes through to help somebody re-map and re-associate experience, whether it's in their shoulders, hips, or feet, we revisit things. The other factor is that it takes time to build a therapeutic alliance, which we know is one of the best predictors of outcome across any modality. Getting 10, 11, 12, 13 sessions with someone is always going to outpace benefits from one or two treatments, regardless of technical factors like skill or precision. Having the repetition to build trust, safety, and rapport, we know that's tremendously impactful for clients.

I think there's a ritualistic aspect to healthcare, and to human interaction in general, that has gone away as our culture has become more isolated from one another in this digital age. The presence of ritual and this sacredness of opening into being impacted, I think you can piggyback on the assessment piece. The act of being assessed sets up in the client the capacity to be impacted, for whatever's being assessed to be changed. It focuses our salience, it focuses what we're paying attention to. The skillful presence—whether it's through touch, movement, imagery, cranial work, or spinal mechanics—the careful and sacred attention of an SI practitioner across a series of sessions is precious.

That's very much not a hug from a loving spouse. A hug from a loving spouse may help with back pain, a headache, a stressful day at the office, or things like that, but what's on the table with a repeated series of

sessions—this ritualized progression through themes and anatomical terrain, this rich relationship that develops within the client and between the client and practitioner—that's the beauty of the work, to me. Unveiling the neurology that allows this to take shape over a series of sessions makes it much more reachable and exciting in terms of what's possible with the work as opposed to just reshaping fabric.

DA: Completion of a series might fulfill another missing aspect from our culture: rites of passage.

MP: Sure. Yeah. I think in many ways, at the end of every session there's a mini rite of passage, whether it's how individual practitioners close their work, whether it's a classic neck/pelvic lift/back work kind of thing or even if it's just a reassessment of, "What's it like now? How are you going to allow this to shape your life moving forward in the next week or two, or month, or whatever time you plan between sessions?" That in-between session integration is part of those mini rites of passage along the way. But I think you're right on, that having gone through a series of sessions that has a distinct start, middle, and finish, can offer something that is often missing in our culture.

DA: Is there anything else you'd like to add?

MP: Oh, man. There's so much. What's most important for me to include in the classes I teach is that I strongly believe this is a way to evolve Dr. Rolf's work. It was mentioned to me by one of my mentors and it's something that I've always held onto tight, is that Dr. Rolf left the community a baby on a doorstep, and it was up to the succeeding generations of instructors to continue to learn and evolve what's possible within this framework. That's where my excitement has been, in the service of evolving Dr. Rolf's work, vision, and the power and potential of

this work. It can be challenging to reconcile what was originally taught with all this good information that says maybe what we're doing really isn't what we think we're doing, or maybe there's more to it, and maybe understanding that is going to involve challenging your assumptions even if you've been at this for 10, 20, or 30 years.

At 20 years in, I just taught a class that had a practitioner in it who's been at it for 50 years. We both sat there side-by-side with students who had recently graduated. We all came to a similar conclusion: that we probably will never know how SI works for sure, but it's exciting to know what's possible and to keep learning. I love learning; it's what I do in a lot of my free time. That may mean I'm kind of dorky and need some different hobbies, but the way I stand with this work is that I'll probably never be done learning about it. I would encourage students and practitioners that, if they want to learn and grow, to do that in ways that make them a little uncomfortable, not just confirming their own biases because we know the traps that are involved with cherry-picking or echo-chambering information, but to learn outside of their inherent biases.

All perspectives, mine included, are limited. They're always partial, but they all have value. For me, bringing value back to the community is always supercharged by evidence. I have a bias towards what can be reproduced and validated by the rigors of the scientific method as being more valuable than my own ideas and opinions. The research around manual therapy, movement, and embodiment has gone through the roof in the last 20, 30 years; there's so much more information available than there was 60, 70 years ago when Dr. Rolf was developing this stuff. Why would we not include all of the evidence that we can get our hands on—not just the evidence that fits in with what we already believe?

Continuing to learn and be open to new ideas from different fields of study puts us in a seat of humility which allows for growth and expansion of the field. This is what I believe we're doing, or at least it's what I want to do in individual sessions, which is to put myself in a position of humility and honor the growth and potential in front of me in my clients—it's the same thing that I want to do as a practitioner,

as a teacher, and it's a value that I have for this work. If the work is about helping people grow and evolve, then the work needs to grow and evolve, as well.

DA: Michael, thank you for sharing your time and insight.

MP: Well, I hope it's insightful. ■



Michael Polon has been practicing as a Rolfer™ since 1999. That same year he was invited to re-enter the classroom as a teaching assistant and has taught Rolfing® and continuing education classes ever since. After almost 20 years of

study, Michael still has the same beginner's excitement when it comes to exploring the art, science, theory, and practice of Rolfing and related disciplines.



Daniel Akins, BCSI, graduated from Anatomy Trains in 2013. He earned an interdisciplinary bachelor's degree at Portland State University, where he published a thesis describing the concept of integration in physiological terms

using a visual model. Daniel lives and practices in Portland, Oregon.

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Creating Boundaries and a Margin of Safety for You and Your Clients

By Bob Alonzi, Certified Advanced Rolfer

In the movie *I am Sam* starring Sean Penn there is a scene where a potential employer for this cognitively impaired character (Sam) asks him how he would deal with customers in his store. Sam's response is "I will be friendly, but not too friendly." And in that scene the cognitively limited protagonist establishes a boundary for his interactions with store customers.

As Rolfers, we have responsibilities in practice that a retail clerk would not have, and yet problems that arise as we work most often have to do with infringements on boundaries. This is an area where we must act in the best interest of our clients, forgoing personal gratification and need. It may be in the language we use, how we touch a client or how we move across the line from professional relationship to personal without being aware of the significance of our own behavior.

In practice, as Rolfers, we occupy a professional place not unlike psychotherapists, with a responsibility to provide a safe therapeutic environment for our clients. The *therapeutic framework* and within that the *therapeutic relationship* are the structures we provide to protect the integrity of our practice; creating clear boundaries, for the practice of Rolfing® and the protection of our clients.

THE THERAPEUTIC FRAMEWORK

A therapeutic framework is the external structure of a practice. Contained within the framework is the space reserved for practice and treatment of clients. The importance of the framework is that it sets the parameters, boundaries, the physical place and kind of practice. The framework includes office or studio, office hours, telephone number, the décor of the workspace and the nature of practice, specialties and credentials, education and training and fees. The framework can be extended to include other business

practices such as advertising, professional network and collegial relationships.

The framework is a place of definition for the business of practice. It clarifies and identifies the nature of the work and how and where the work will be performed. It establishes for the consumer a service and what can be expected from that service. It is the business model for the practitioner.

The therapeutic framework is representative of the practitioner. This is the first measure taken by the consumer and other professionals as to who is the practitioner and what is the service. It communicates and suggests treatment(s) benefits and value in the marketplace.

Why should there be a formal declaration of a therapeutic framework? Because it is a defining moment for a practitioner to state the terms of practice. It solidifies why and how one will provide service and how one can be most effective in providing it. It is preferable for a practitioner to determine the rules that govern practice than to leave it to the winds of trial and error – no doubt trial and error will occur and be the impetus for improvement and change in methodology and practice.

THE THERAPEUTIC RELATIONSHIP

Within the therapeutic framework is the therapeutic relationship. Sometimes this is called the "container". The container is the structure in which we provide therapeutic services. It is the place we establish boundaries for the relationship we have with our clients. It is first, a place of safety where a client can assume the practitioner will provide safe and effective treatment and trust no harm will come as a result of this trust. In this relationship the client can expect that all communications are confidential, that the client will not be judged by the practitioner, and that care will be provided in a sensitive and respectful way.

For the practitioner, the therapeutic relationship is what holds the rules for engaging in practice. These rules come from the Rolf Institute's® Standards of Practice and Code of Ethics. If you have not read them recently, it is a good time to refresh your memory and adopt what is missing in your practice and put them to work.

As Rolfers we must recognize the vulnerability of our clients as they enter our places of treatment. We ask people to surrender to a process of transformation, which includes the potential for both emotional and physical changes. We ask for personal information including a history of health, accidents, injuries and traumas. Then we ask them to disrobe for a visual assessment, and then be touched by someone they do not know. Within the realm of client disclosure, Rolfers face more boundary issues than our colleagues in psychotherapy. Not only do we listen and discuss with the client his or her body and issues arising from discussion, but we also ask them to be in partial dress and we touch them. While the client surrenders to vulnerability, we hold a place of authority and power. This power differential is where we must be most careful and temper our actions, language and assessments with sensitivity and care. How we touch, the words we chose and the opinions we offer are empowered by our role as Rolfer. What and how we communicate can have a powerful impact on the client with the possibility of misunderstanding. It is all the more reason to understand our Standards of Practice and conduct ourselves by our Code of Ethics as a measure of protection for both the client and ourselves.

EMPOWERING THE CLIENT

As Sam simply stated, "I will be friendly, but not too friendly." As a Rolfer, be empathetic, kind, understanding, considerate, sensitive, respectful and appropriately friendly. Do not err by crossing lines of behavior that puts the client and yourself in jeopardy. As Sam alludes: beware of the boundary, your role and responsibility to your client. The role of the Rolfer is to empower the client. The hope of the client is to leave knowing you empowered him.

Bob Alonzi is a Certified Advanced Rolfer and member of the Rolf Institute® of Structural Integration Ethics Committee with a practice in Santa Monica, California.

Ask the Faculty

Self-Care for Rolfers™

Q *I've been practicing Rolwing® for several years now, and was wondering if you could give me some advice regarding self-care. Areas that have come up for me include: minor aches and pains in my arms and hands that seems to be progressing a bit, taking on clients' energy during sessions, and feeling drained at the end of a long workday. Any guidance you can offer in these or other areas of self-care for Rolfers would be welcome.*

A I find that if I take several clients in a row without taking time for myself to recover (ten minutes break between clients, healthy activities after a workday), I feel my energy has been drained. But what seems worse to me is to feel in a continuous hurry, which makes me stressed, in situations like being late with one client, not being able to catch up with the next one, not being able to make a necessary phone call, or having to rush after finishing my work. I would recommend you get to the office comfortably ahead of time, take some time to center yourself and recover between sessions, do healthy activities after work and have pleasurable relationships. Also, I would recommend making peace with your aging process: ten years ago my body could take many more clients in a day. Now it is time for listening to how much my body and mind can take and doing it in the most pleasurable and nurturing way.

Cornelia Rossi
Certified Advanced Rolfer,
Rolfing Instructor,
Fascial Anatomy Instructor

A As in most professions, you are your most valuable tool. It is crucial that you take care of yourself. Additionally, the quality of your touch is a reflection of your inner state when you practice, which is partly a function of your health and well-being. I find that it is essential for longevity in my practice (thirty-nine years), and my development as a Rolfer, that I cultivate my personal practice of yoga and *chi gung*, along with aerobic exercise. You need a practice that will develop your capacity for concentration, inner sensitivity,

strength and endurance. Energetic practices are important for me, as access to inner energetic flows comes naturally. Your practice should be based on your inner talents, proclivities and resources. I almost always end my day with forty-five minutes of my practice. It is better than a margarita.

Taking on clients' "energy" during sessions is a boundary problem and is one of the most profound issues we deal with as Rolfers. It is difficult to address briefly, as it often has to do with the way Rolfers perceive. I am an introvert and work from a deeply internal space. I will often, during a session, focus on an inner state I have cultivated over the years and rest there. It is a familiar place for me and securely grounded. It also allows me to open to subtle sensations and "intuitions" that guide my decision-making during a session. But most importantly, it is familiar and connected to more "archetypal" or universal sources of support. From this space it is possible to perceive my client's vulnerabilities, injuries and trauma without being involved in them. I am filled with my own presence. As they say: "A good offense is the best defense." Being fully present to your own space makes it clear what is problematic in your client.

I could rephrase all this and say simply that being perceptually present to the space you are in and connected to the ground will give you a clear sense of what is you and what is not, which is always the issue if you are being overly affected by your clients' suffering. The problem is that it is not actually that simple.

Being tired at the end of the day is a consequence of the "complex" work of

Rolfing. Rolfing requires immense presence, concentration, compassion, knowledge, strength and dexterity, which at the end of the day leaves us tired but satisfied, knowing that we have not wasted our time. Feeling drained is usually a consequence of losing our sense of appropriate boundaries, which I have discussed above.

Michael J. Salvesson
Certified Advanced Rolfer,
Advanced Rolfing Instructor

A **On physical aspects:** In my first couple of years as a Rolfer, I did not take any systematic approach in supporting my own body for the demands of giving many Rolfing sessions. Inspired by my review of the literature on connective-tissue remodeling, that attitude has changed. With the half-life cycle of collagen being approximately twelve months, I know that it is easily possible to build a strong and elastic fascial body, provided that one regularly stimulates the fascial fibroblasts over a period of six to thirty-six months. The key being gradual load increases, at very small increments, with appropriate rest in between. Good examples are martial artists who have developed an amazing fascial strength, usually by training and loading their fascia two to three times a week over many months and years.

With my fingers having been the weakest part of my body during strenuous Rolfing sessions, I therefore started to do modified push-ups on my fingertips – first putting only a small portion of my body weight on them, and then increasing the loading every few months. The same applied to doing pull-ups on a doorframe, beginning again with only a small portion of the body weight. As tactile sensitivity is diminished for a few minutes afterwards, I usually practice these one-minute exercises at the very end of a Rolfing day, yet only two times a week.

I have the same philosophy in scheduling my session slots over the years: I found that it's best for my body to work two longer days per week, with one or two easy days (with no sessions or only very few sessions) in between. I remember having had painful body responses after increasing my maximum session load erratically from one month to the next. Following the martial arts philosophy of gradual load increases, I then planned this more systematically and went on to adding

just one more session to my maximum daily load every couple of years. Today, after more than thirty years of giving Roling sessions, I am treating clients two days a week only, yet with ten sessions of an hour length on each of those days, and with one day of rest in between those two days, as well as a long four-day rest over the weekend. The remaining days of the week are then free for my research work at the fascia lab, which is very different body usage than during my session days. I am convinced that had I followed a more erratic development of my session load, my hands would have acquired some aging “wear and tear” symptoms by now, and I would probably have bouts of wishing for “Roling retirement” once in a while. Yet fascia is not like a car tire that gets used up over time. It is an amazingly responsive biological tissue: depending on how we load it, we can wear it down, or we can build it up. I have profited from that insight tremendously.

On energetic aspects: I must confess that I find the concept of a certain quantity of negative energy being taken over from one person (who is subsequently “relieved”) to another person (who subsequently feels burdened) not at all convincing. Particularly in the light of modern scientific insights on the function of mirror neurons and their role in human empathy, the “energy transmission analogy” is no longer suitable for me. Like many other therapists, I tend to have very active mirror neurons when being with another person. When watching a James Bond movie for example, my skeletal trunk muscles tend to shiver out of excitement to such a degree that I often feel like suppressing it or hiding it from the person next to me. A less dramatic yet similar empathetic process happens in my sessions: my breathing, vitality, and emotional state change from one client to the next. And the physiological changes in my body may be as significant as if first watching a horror movie, then a great comedy, and finally a heart-throbbing historical love drama. What happens in my body has little to do with the “energy” of the physical cinema screen in front of me. And the feelings in my body when seeing James Bond hanging over a cliff are probably also different from those of the real movie actor (who may have stood on a wooden post in a Hollywood studio, pretending to hang miles above a canyon).

Reading the excellent book *The Body Has a Mind of its Own* by Blakeslee and Blakeslee has been very inspiring for me. It helped me to understand that it is my neo-mammalian cortex that actively tries to guess what the functional and emotional qualities of a perceived posture or movement are for another person (and filling in many blank spots in order to arrive at a “congruent picture”). And then my brain actively anticipates how I would feel if I were in this person’s skin, yet with my own body history and personal life story as a background. I am sure that my own visceral reactions in response to a client’s expressions may often be shaped by distorted projections and interpretations similar to their function in a movie theater. And yet, they can also give me very valuable input for what the great neurologist Antonio Damasio calls the “somatic markers” in my own sensorial advisory system, in order to refine my intuition.

Reading a few recent research papers concerning empathy and mirror neurons convinced me that the degree and direction of somatic empathy can be drastically shaped by clever circumstances and conditioning. Given the right setup, most people can be seduced to have “out of body perceptions” or to “live” in somebody else’s limbs (See e.g.: V.I. Petkova and H.H. Ehrsson’s “If I Were You: Perceptual Illusion of Body Swapping,” *PLoS One* 3:12, 2008). That fascinating background inspired me to experiment more creatively with my own mirror neurons during sessions. Over the last two years this led to what I now call the CAKE technique: “Constructive Anticipatory Kinesthetic Empathy.” Let me briefly explain: Rather than emotionally merging with my clients, or “keeping my distance,” I now focus on a specific combination of self-sensing and kinesthetic empathy. Before touching my client at a new place I ask myself: “Where is this same place in my own body?,” “How can I be more present there?,” and “Am I able to anticipate kinesthetically in my own body the particular state of release (or warmth, letting go, vitality, postural integration, connectedness, wellness, etc.) that I hope to induce in my client in this area?”

Being slightly dyslexic, it took me initially a second or two to locate my left knee before touching my client’s left knee, as an example. Yet now it takes me less than a second to locate it, followed by another one to three seconds for “connecting” with that

region internally and to induce a positive anticipated kinesthetic sensation. The side effects of this practice for my own posture and well-being are very beneficial. If I have a day with many leg-oriented sessions, then I end up with very happy legs and feet in my own body at the end of the day. Similarly with my shoulders, lower back, neck; you name it. I also believe that this helps my clients’ mirror neurons in taking over some of the beneficial tissue and body changes that they subconsciously perceive in my body and in our physical communication.

What motivated me to sit down and contribute these impressions for this journal column is the vivid report of a Rolfer colleague sharing her experience with the CAKE technique yesterday. Having learned this technique in a workshop a few months ago, she reported that she now feels energized and “well” at the end of her session days. Yet in addition she also achieved a full practice for the first time, which she is convinced is due to how differently her clients perceive her and her touch in their sessions. Needless to say, I am very happy to hear that, as practicing the CAKE technique also continues to be of great value in my personal Roling practice.

Robert Schleip Ph.D.
Certified Advanced Rolfer,
Rolifing Instructor,
Fascial Anatomy Instructor

A Achy hands and arms might mean you are pushing, rather than “sinking” and letting the tissue come to you before you sink deeper. Take your time – slow down. I think it takes a long time to let go of the perceptions of what you think the clients “expect” from you. Don’t overwork time-wise in a part of the body or session, and take your hands completely off the client frequently. Move your wrists and fingers around the way you would stretch and work an ankle that is tight. In between clients, I stretch my hands on the wall, open fingered – I reach and stretch my shoulder joints, drink lots of water and never schedule in a way that doesn’t give me at least ten to fifteen minutes to myself. Get real on how many clients you need versus how many you “love” doing. What is your ideal number each day, and if it supports you financially, that is great. Be careful that you are not talking a lot during sessions or using the clients as a

social moment for yourself, as that can end up draining you. I find that when I can be completely present and quiet internally, use my hands efficiently and deeply, Roling is actually a resting place for me compared to everything else in life.

Valerie Berg
Certified Advanced Rolfer,
Rolring Instructor

A It's important to work from a "spacious perspective." Much of what we do is help to reestablish spaciousness in our clients. We need to have our own spaciousness to communicate this to our clients and to have our interventions be most effective. When we work from this perspective, we will tend to have much less compression into our own body (hands, arms).

We do three things in Roling – hydrate, differentiate/de-rotate, and integrate. I believe our profession (all of manual therapy) has valued focusing a lot of pressure into the tissue in order for it to hydrate or change. Let me offer another point of view. What if hydration of the tissue is more easily accomplished with a more evoking touch? I believe that the inherent health of the system is hardwired to move toward hydration. My experience is that touch that invites the tissue to expand and express spaciousness (palintonicity) is more effective, is easier on both my body and the client's body, and is more integrative.

Some ways to do this include:

Imagine/allow your body and its field to take up more space. Begin by imaging/allowing yourself to fill up about two to three feet of space around you. A simple way to begin this is to keep finding your back – allow your back to move away from your hands as you widen the field of awareness around you. It is important to attend to your grounding as well. Be aware of your feet resting with weight on the ground. Breathe. Ground and feel space.

Begin by practicing outside of a session. You can also practice while you're doing your intake or your pre-session catching up on what's happened since the last session. Breathe and pay attention to your back. Be aware of the field around you. Feel your feet and ischial tuberosities resting on their surfaces.

Keep in mind that if you want to work deeper, you actually need to "back up." If I focus (take my whole self) deeply into my client's body as I work deeper with increasing pressure, there is often a physical and energetic resistance making the deep work more uncomfortable and less effective for both myself and my client, as well as compressing my hands and arms. Your client will often respond more readily if you invite the tissue to expand and rehydrate through a lighter more evoking touch.

This may challenge your ideas about deep work. If so, great. Don't believe me unless you experience it. Don't underestimate the power of a wide perceptual field!

Look with a soft focus versus a pointed gaze. Notice your peripheral vision. Find your back.

Focus on the palms of your hands with fingers being extensions from there. As much as possible include your palms in your contact and use as much of the whole hand as you can. The palm includes the "eye of the hand" (EOH) and has a direct connection into the interosseous membrane and by extension into the thoracic core. As you "work" from the EOH, allow/imagine that there is space in your joints, hand and the interosseous membrane.

Of course, your own body mechanics are important. Work through your shoulders, not from your shoulders. Have your hands express from your heart through your lateral line. Keep your scapulae on your back versus allowing them to follow your hands. Let your scapulae and your elbows have weight. Keep your feet, pelvis, and sit bones in your attention as you do this. You may want to have a colleague guide or give you feedback in your body mechanics.

Pay attention to the pacing of your client's tissue response. Notice if you're forcing the tissue or coaxing. Inviting it to hydrate vs. making it hydrate. Have patience. "Listen" with your hands and being. Hold the perspective that you are a catalyst for change, not the change.

It's OK to pay more attention to yourself than your client for much of the session. Where you are in your body/perception/self-awareness has a huge impact on the tissue response. Experiment. Realize that

your client's system is tracking you as you work with him. He will reflect the ease in your system and relax in his own.

Don't attempt to integrate all of these suggestions at once. Pick one and work with it, experiment with it. Then move to another.

Thomas Walker
Certified Advanced Rolfer,
Rolring Instructor

A Your question comes at the cusp of the point in your career where you can find ways to make Roling a long-term lifestyle or you could find yourself with increasing aches and pains that limit your time in the practice. I'm happy that you are asking these questions now. Several ingredients are important in Rolfer self-care. They parallel the wholistic nature of the work. There are physical strategies, energetic strategies, and psychological strategies. I will limit my discussion to primarily physical strategies.

First, you need to get Roling from other practitioners to keep your own structure free from the repetitive stresses that a busy practice puts on your body. This should include both structural work and also an exploration of how you are using your body when you work that is contributing to any strain patterns you may be perceiving or that you may be entrenching in your system below your level of awareness.

Second, you may be ready, if you have not already, to upgrade to an electric table, which will allow you to spend more of your session time with the table at an optimal height for the specific task. For example, I like to have the table at a much different height for doing neck work or foot work than for doing hamstring work. And you'll find working with clients in sidelying positions can be much easier when you can bring the relevant structures to you.

Finally, you need to commit yourself to continuously exploring your own body use as you work. This is related to getting good structural and functional work to open your awareness to your patterns, of course. It is also a practice in and of itself. The practice is to put your own embodiment in the front of your awareness while you work (as opposed to needing to "get" that tissue/structure/pattern in your client). This means that you are consistently tracking your own sensation as you work: "Do I feel comfortable? Am I shortening my structure

somewhere? Is there freedom in my core right now? Am I breathing? Am I holding somewhere? What is my connection to ground like right now? Am I aware of the space in the room and outside the room?"

It is my experience that using a couple of simple concepts of movement will help to organize my body use in a way that keeps me comfortable and thereby facilitates the work. First, I endeavor to use contralateral movement whenever possible. That means that if I am working in tissue, usually pushing away from myself, with my right hand (right hand forward from my midline) I am using my right foot to stabilize or to push from a position behind my midline. That may sound complex, but really, it is just the movement of walking. When one arm is anterior, the leg on that side is posterior and vice versa. This sets the body up biomechanically for forces to travel through the body without creating undue strain.

Second, I work with the principle of palintonicity. I work in a way that keeps multidirectional length through the

system, especially the core structures. In talking about core structures I include the interosseous membranes of the arms and legs as well as the palmar fascias. There is not room in this forum to address all the various biomechanical relationships that one might explore in turn, but instead let this be a general approach. Your Rolfer or Rolf Movement Practitioner™ can help in illuminating the specifics of your pattern with you.

Finally, I find that keeping my base of support both grounded and in alignment with the direction of my movement helps to facilitate good body use. In other words, if the vector of my input is at a sixty-degree angle to the edge of the table, I line my body up with this vector, rather than trying to twist to accommodate the vector while I stand at a right angle (or any other) to the table. You may have been introduced to this in your training as the rocker concept. It means that as we project in a direction, we are best served to roll through the base of support (the feet, knees, or pelvis when sitting) in that same direction. Another tip

to maximizing the support of your base is to watch the tendency to lean onto the edge of the table, which effectively makes the table your "ground" and decreases your support and leverage.

By working in these ways – allowing your own sensation at the forefront of your awareness, moving in contralateral motion, and maintaining core length – you may find several benefits. First, some of those aches and pains will be reduced or disappear; second, you may find that you are more able to perceive your client's system; third, you may find that you don't need to work as "hard" to effect change in your client. This, in turn, should leave you with a little more energy at the end of the session/day. Another benefit of keeping your own sensation in the forefront is that you may begin to notice when you are overworking or taking on your client's energy or agenda more quickly and be able to take measures to interrupt that process.

Duffy Allen
Certified Advanced Rolfer,
Rolfing Instructor

Contraindications/Cautions for Structural Integration: A discussion

Shonnie Carson and Carrie Gaynor

Shonnie Carson RN, BS, ANP, CAR, BCSI is a Certified Advanced Rolfer™ in Phoenix and has been practicing since 1981. She currently serves as Vice Chair of the Certification Board for Structural Integration™. Shonnie is an Adult Nurse Practitioner and had a 34-year career as an R.N., largely in hospital medical/surgical and rehabilitation areas including three years as Director of Nursing for a 120-bed hospital.

Carrie Gaynor, BSN, RN, KMI, BCSI is a Board Certified Structural Integrator™. She has been practicing since 2003. In 2006 she joined the faculty of KMI, teaching both Anatomy Trains® and KMI courses. She earned her nursing education at the University of Rochester and is a member of Sigma Theta Tau International Honor Society of Nursing®. Carrie serves as a member of the Certification Board for Structural Integration™ and the Board of Directors of the International Association of Structural Integrators®, reflecting a deep commitment to enhancing knowledge resources and networks.

In May 2008, the ninth edition of “Contraindications and Cautions for Deep Bodywork” by Schleip, Luchau and Schewe was published.¹ We are responding to their invitation to contribute to this growing discussion. Further, there is evidence suggesting that Structural Integration (SI) practitioners would benefit from a tool or form in which to gather pertinent health history on clients. We are offering a sample health history form more tailored to the needs of Structural Integrators. It is in this context that the sample health history is intended to alert the practitioner to contraindications for SI, indications to modify techniques, the need for medical permission or collaborative relationship. It is our hope that this form will enable the practitioner to individualize session work and maximize the outcome for their clients.

Our intention is to offer our viewpoints as two Structural Integrators with considerable medical education and experience. Our hope and purpose is not to replace the information in that article, but to stimulate further discussion and to offer a wider range of opinion to the Structural Integration community.

It is important to acknowledge that there is great variation in styles of work within the SI community and therefore difficult to give absolute guidelines without some explanations or qualifications. If you are very new in your SI

practice it may be appropriate to contact a more mature practitioner for consultation or mentoring.

The style of your work is a factor in determining how and if SI work can be done given pre-existing health conditions. Common language found in the literature suggests that the term “deep body work” is synonymous with aggressive or painful work. We disagree and take this opportunity to lend clarity.

We will use the term “forceful touch” as a term identifying touch whose speed, depth, or pressure is such that the client is unable to remain relaxed and open to receiving work. Hallmarks of this style of work are: the client’s response is breath holding, contracting, tensing or withdrawal from touch, and expressing that the work is painful. Often the client will disengage or dissociate from the practitioner or the experience.

The term “appropriate touch” is a term identifying touch that is evidenced by the client being able to have normal breathing patterns and able to be relaxed and open and participating with the practitioner in the work. The tissue engagement hallmarks are: the practitioner is aware of appropriate layers of tissue and is able to “listen and follow” tissue patterns and changes, rather than making a more willful imposition of the practitioner’s idea of how the tissue “should” change.

If your work tends to be in the category of “forceful touch” then some conditions will not be appropriate for your work that would be appropriate for a practitioner with less intrusive “appropriate touch.”

Liz Stewart, GSI faculty member, offers courses such as “Surfing the Superficial Fascia” through the IASI CE program and GSI (www.rolfguild.org). This is a wonderful resource for those practitioners wanting to learn how to touch with a refined and precise contact of tissue layers.²

We want to be clear that we are not discussing this information in the context of “treating” any of these conditions with SI, but rather discussing if and how it is appropriate to do SI work in the presence of any of these conditions.

Our approach will be to discuss general categories and highlight specific diagnosis examples. Please note that we are not going to necessarily define diagnoses, as that information is readily available from many sources. We will leave it to the individual practitioner to obtain that information.

Gaining medical clearance

Because very few physicians understand what SI consists of, we suggest that when physician clearance is recommended, if the client is cleared for massage work, that should be appropriate clearance. This is of course, a wonderful opportunity for physician education. Physicians are much more receptive to documented research rather than anecdotal information. IASI has developed a marketing brochure for SI, which you may want to include for their information.

Circulatory conditions

- **Atherosclerosis and Arteriosclerosis**—a significant percentage of the population is living with these changes in the circulatory system. This diagnosis by itself is not a contraindication but should alert the practitioner to obtain a complete and detailed history that may reveal some of the following that would warrant caution.
- **Anticoagulants**—if presently taking or recent history, there may be an increased tendency to bleed or bruise. Forceful tissue work is not appropriate. Care should be taken with intranasal work. Variables in the reason for

taking these medications such as a chronic or acute condition, how long the client has been on the medication, etc. effect whether SI work is appropriate. If uncertain, obtain a clearance from the physician.

- **Embolism/Thrombus** (clots)—particularly in the lower extremities. If this is only on history and is not acute and not being currently treated, then SI work would not necessarily be contraindicated. Caution should be used with forceful work on the lower extremities particularly in the presence of moderate to severe varicosity.

If the client is currently being treated for embolism or thrombus and there is swelling/discoloration/redness in tissue you should not work on or around the area. If the client is on anticoagulants for recent embolism you should not do tissue work without clearance from the physician. If you are uncertain we suggest obtaining clearance for bodywork from the treating physician.

- **Varicosities**—direct or forceful work on the veins is contraindicated especially in the lower extremities.
- **Phlebitis** is an inflammation of the lining of a vein or artery. The danger with phlebitis is the potential for embolus or clots. Work on or around the acute area is contraindicated during the acute stage. See comments on embolism and anticoagulants.
- **Aneurysms**—if known and unresolved, a physician’s release should be obtained. Direct work in or around the area of the aneurysm is contraindicated.
- **Edema** (swelling) in the tissues, especially the lower extremities—this indicates not only impaired circulation which can lead to emboli, but also can be symptomatic of cardiac, pulmonary or kidney conditions which may or may not be diagnosed. We encourage you to learn to recognize the different degrees of edema such as 1+ up to 4+. Forceful work is contraindicated in the presence of more than minimal (1+) edema because there is a danger of dislodging clots or tissue damage. If the condition is chronic and the client is not under medical care you should encourage the client to obtain a medical exam.

Cardiac (heart) conditions

History of MI (myocardial infarction or “heart attack”) is not a contraindication. However, if the client has unstable angina or is experiencing frequent episodes of chest pain with or without using nitrates frequently to control chest pain (angina) physician clearance is recommended.

If the client has a history of cardiac surgical procedures such as heart catheterization, stents, or open heart surgery it will generally be appropriate to do SI work under the following conditions:

- Incisions are healed (generally that is six weeks post operatively).

Note: there can be complications with sternum healing after open heart surgery (Coronary Bypass Grafting (CABG) surgery, heart or valve surgery). This often involves intricate measures to repair the sternum including omental flap procedures. Is this is suspected or reported please obtain permission or guidance from appropriate sources including the physician.

- No indication of edema, embolism/thrombus or recent initiation of anti-coagulants. If any of these are present-review comments on the appropriate issue.
- No exercise restrictions. The best possible scenario is that the client has completed a structured cardiac rehabilitation program.
- If the client has assistive devices such as Greenfield filters, pacemakers, defibrillators, etc. obtaining clearance from the physician is recommended.

Note: literature review reports 20-25% of post cardiac events patients experience depression. According to Kathleen King, “emotional distress and functional disabilities decrease over time and appear to be stable by 6 months after the event”.³ Working with these clients offers an opportunity to use your skills to be alert to possible depression and to be aware of the potential need for appropriate referral for mental health support or other collaborative practice opportunity.

High blood pressure (hypertension)

If treated and under control, hypertension is not contraindicated.

Forceful work that results in the client holding breath is not recommended as that can raise blood pressure.

If the client has extreme high blood pressure that is not amenable to control by medication that is a contraindication and work should not be done without physician clearance.

Autoimmune diseases

Included in this category (but not limited to) are Lupus, Rheumatoid Arthritis, Ankylosing Spondylitis, and Scleroderma.

As a general statement, it is usually best not to work on acutely inflamed areas. However, many chronic conditions can have positive response to SI work that is not forceful. Many of these conditions are accompanied by restriction in the movement of the connective tissue, and SI work can often help these clients maintain more mobility.

Psychiatric disorders

There are many sources in the SI community for the practitioner wishing to develop a better understanding of how to deal with emotional content that may arise during sessions. An excellent reference would be *Waking the Tiger* by Peter Levine⁴ and his doctoral thesis “Accumulated Stress, Reserve Capacity, and Disease.”⁵ We suggest that you have a resource list of mental health care providers you are comfortable referring to and that can be helpful when emotional content deserves the attention of a professional provider.

Be cautious with clients in psychotherapy. Their therapist should know they are receiving bodywork.

Clients with Bipolar Disorder, or borderline disturbances (on the border between neurosis and full psychosis) warrant caution. Depending on the severity, SI work can trigger destabilizing episodes. If you are uncertain, then the client should obtain the supervision of a psychologist, psychiatrist, or counselor, and you should have clearance from the physician.

Psychosis (all forms) is a contraindication.

Nervous system disorders

These disorders are not contraindications for SI work. If there are specific client issues that the practitioner is unsure of, then obtaining physician clearance is prudent.

Most of these disorders, including (but not limited to) cerebral palsy, MS, various dystonias, Parkinson's, and paralysis states, are accompanied by shortening/restriction in the musculature and connective tissue. SI work can often help these clients maintain more mobility. If you are unsure, you should obtain clearance from the treating physician.

Epilepsy/seizures

There are many variables to consider with these clients. If there is only a history, particularly related to a specific incident, and no recent occurrence or treatment, this is not contraindicated.

If there has been recent seizure activity and / or the client is taking medication for seizures, obtaining physician clearance is prudent. Also, the client should be informed that SI work may alter the need for medication. It is not uncommon that medication dosage may be reduced.

Practitioners should be aware that triggers for seizures vary widely and may include hyperventilation and certain types of lighting or visual stimuli.

Cancer

There is wide variation in cancers, and to make a blanket statement is difficult. There is some theoretical concern that tissue work may result in "breaking tissue encapsulization" or in cancer cells moving to another part of the body. However, we are unaware of any research supporting this conclusion. Cancer spreads to other locations long before it is detectable (called micro metastasis) and when a cancer is evident it is highly likely it was there for some time.

The massage community has moved away from the belief that cancer is an automatic contraindication. In articles in *Massage Today* both Tracy Walton⁴ and William Handley⁵ have offered viewpoints that massage is NOT contraindicated with a cancer diagnosis. Their view is that massage (tissue work) is beneficial and that the contraindications are based on limited understanding of how cancer is spread and the effect of uneven or lacking research.

If the purpose of SI is to create a more functional structure with a higher level of health, then it is appropriate to assume that SI can contribute to the client's system becoming more capable of effectively responding to challenges.

Many cancer treatment centers support the use of different forms of bodywork to enhance the recovery of clients. There is no documentation (that we are aware of) to support removing SI from this category.

Caution should be used if the client is in current treatment and the cancer diagnosis is acute. If the client is in that stage, then physician clearance should be obtained.

When treatment has been completed and tissue is healed from treatments, then SI work can be very appropriate.

The five-year clean bill of health common cautionary against SI work is not supported by any documentation or research. If the treatments or surgery have resulted in muscular/tissue restrictions, often these can be improved very effectively with SI. Specifically, work with women post mastectomy can usually dramatically improve not only neck, shoulder, and arm function, but also improve rib cage and respiratory movement. It is Shonnie Carson's experience, after years of working post-treatment with clients with various cancer diagnoses, that all have had beneficial responses to SI work.

It is always prudent that if a practitioner observes any lumps, masses, or unusual things present, the client should be encouraged to seek medical attention.

Scar Tissue

Surgery, radiation, and traumatic injuries, and their resultant scarring, interrupt fascial continuities and alter the transmission of force through movement planes. This can be dramatically reduced by appropriate tissue work. Sensitive appropriate and specific SI work can reduce pain and improve mobility, adding an important aspect to the healing process that is likely to be emotional as well as physical.

Your history should include the date of occurrence/intervention, and complications such as deficiencies in muscle strength, ROM, lymph circulation, and neural hypersensitivities. The scar should be healed—usually about six weeks after surgery or injury. Note cautions in the Cardiac surgery section.

In his 2009 presentation to the Fascial Research Congress, "Fasciae in Recovery from Cancer Surgery," Willem Fourie, PT states that soft tissue therapy should be part of therapy following surgery, and the role of the manual therapist in healing includes the restoration of tissue glide and flexibility between fascial planes

SAMPLE CLIENT HISTORY FORM FOR STRUCTURAL INTEGRATION

Client Name: _____

Phone: H _____ C _____ W _____

Mailing Address: _____

E-Mail: _____

Referred by: _____

What is your main reason/ goal for Structural Integration work?

While Structural Integration is not a medical treatment, it is relevant to know about one's physical and psychological history for most informed and individualized session work. Please complete the following questions.

Please indicate any areas below which you are aware of pain or numbness.
Use a **P** for pain and an **N** for numbness.

__neck __shoulders __elbows __hands __wrists __hips
__lower back __upper back __knees __ankles __feet __other (please note below)

Physical and Psychological History

Date of Birth ____/____/____ Current height : ____ weight: ____

Current Medications and indications:

Prescription meds

Over the counter items – please include pain meds, vitamins, herbs, etc.

Allergies:

Medications _____

Latex or other (ie. Seasonal / hay fever) _____

Reproductive History (circle what applies):

If female are you menstruating, pregnant, or post-menopausal? _____

Number of pregnancies _____ Number of live births _____

Contraception method _____ Age(s) of Children _____

Hot flashes _____ Pain/discomfort with intercourse _____

Pain/discomfort with menstruation or ovulation _____

Please indicate age or year and description for any of the following:**Surgical History / Hospitalizations (including cosmetic)**

Injuries (auto accidents/falls/etc.) _____

Fractures/Sprains requiring splinting or with swelling _____

Cancer:
location/type _____

treatment/date _____

Additional Health History (circle all that apply)**Respiratory:**

Repeated or frequent bronchitis or pneumonia	Asthma
Unexplained shortness of breath or difficulty breathing	Tuberculosis

Cardiac:

Pulse irregularities / heart murmurs	Phlebitis or embolism/thrombus (clots)
High blood pressure	Episodes of chest/jaw/arm pain
High cholesterol	Episodes of fatigue/midback pain/indigestion
Anticoagulation therapy (blood thinners)	Arteriosclerosis/atherosclerosis

Digestive:

Food intolerance (indicate type) _____

Eating Practices _____

Hiatal hernia	Diabetes: Type I or Type II
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Ulcers	Hypoglycemia
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Frequent indigestion/acid reflux	Braces (teeth)
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Constipation /diarrhea	Dental / jaw problems
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Colitis	TMJ
---------	-----

Bulimia / anorexia	Grinding / clenching teeth
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Skeletal:

Osteoporosis/osteopenia
Arthritis: osteo / rheumatoid /other

Spine / disc problems
Joint problems

Nervous System:

Headaches
Epilepsy / seizures
Dizziness / loss of balance
Numbness /loss of sensation

Weakness /inability to move a part of the body
Psychiatric history / treatment
ADD /ADHD
Learning /communication disabilities

Urinary:

Infections /stones
Difficulty urinating

Incontinence / leaking
Prostate problems

Miscellaneous:

Eye problems / glaucoma / detached retina / cataracts
Glasses / contact lenses / lasik surgery
Hearing / Ear problems

Movement or exercise practices and frequency

Hobbies/Sports

Treatments you have sought out to help you with the reason you are here:

PCP: _____

Chiropractor: _____

Massage: _____

Acupuncture: _____

Other: _____

Do you give your permission to contact these practitioners if necessary Y / N

Is there any other additional information I need to know about you as a client?

This form is accurate to the best of my knowledge.

Client signature _____

Print name _____

Date _____

where possible. Additionally, Fourie provides an excellent and concise presentation on fascial physiology and the effects of fibrosis on the layers of tissue and the secondary resultant impaired mobility.⁸

Sharon Hancoff, CAR has developed techniques for working with scar tissue that are unlike any other techniques being taught.⁹ Sharon teaches workshops on these techniques and the techniques are easy, gentle, and extremely effective in not only normalizing the appearance of scars, but also decreasing impaired mobility.

Diabetes and hypoglycemia

Working with diabetic or hypoglycemic clients is not contraindicated. Practitioners should be aware of the following cautions:

- Many diabetics, particularly those with poorly controlled diabetes have decreased ability for tissue repair (healing), often have impaired circulation and may have decreased sensation, particularly in the extremities.
- A condition called peripheral diabetic neuritis is not uncommon. The symptoms are frequent and/or persistent burning or pain in the lower extremities. So forceful tissue work in extremities is not recommended or should only be done with caution.
- Tissue work on insulin injections sites that are older than six hours should not increase insulin uptake and is not contraindicated.
- Clients with hypoglycemia (low blood sugar) should be encouraged to eat some protein before sessions and watch for signs of fatigue, or clammy skin, as these may be early signs of low blood sugar.

Infectious/inflammatory conditions

- Any acute infectious or inflammatory condition is a contraindication for SI work, in the affected area, during the acute stage.
- Work with acute feverish clients is contraindicated.
- Conditions such as tendonitis and bursitis often respond very well to work after the acute stage.
- Osteomyelitis is an infection of bone and often makes the bone very fragile so forceful work in the affected area is contraindicated.

- If the client has a systemic (generalized) infection that is acute, it is prudent to postpone sessions until treated or recovered.
- Any acute infections or inflammations of the skin including herpes and severe skin rashes should not be worked on directly.
- Work should not be done on or around any open sores.
- HIV is not contraindicated, but SI work should be done with medical supervision.
- Cortisone is often used in the presence of inflammatory conditions. It is not necessarily a contraindication for SI work. The variables requiring consideration are how forceful the practitioner's work is relative to tissue health, the dosage the client is taking, and how the client's tissue reacts to pressure (is there pronounced tendency to bruise).
- The practitioner should have knowledge of Universal Precautions to help limit or minimize the spread of communicable disease.

Female reproductive system

- **IUD**—extreme caution with any abdominal work. Abdominal work can dislodge the IUD and could result in complications including perforation of the uterus. Forceful or uninformed work in the lower pelvis is contraindicated.
- **Menstruation**—this is a normal function in females of reproductive age. Menstruation is a result of hormonal changes that produce sloughing of the engorged inner lining of uterine tissue when implantation does not occur. The presence of menstruation with or without heavy flow is not a contraindication for SI work.

Some women have heavier menstrual flow and discomfort than others. If the client feels flow is heavy enough or discomfort acute enough to warrant rescheduling a session then that is appropriate. Deep tissue work or massage or even visceral manipulation may result in an alteration of menstrual flow and alteration in comfort levels, frequently for the better, but menstrual flow will not be more than the uterus would normally do in sloughing the lining. Increasing circulation to the abdomen or pelvis does not increase the "severity" of menstruation.

- **Pregnancy**—we have both studied with Pilar Martin, CAR and Certified Nurse Midwife. Pilar offers an excellent workshop on “The Female Pelvis”¹⁰ and we encourage practitioners to avail themselves of her experience and knowledge. She has spent years working with women and their reproductive systems and offers detailed insight into the structure and function of the female pelvis, which is functionally more complex than the male pelvis and can be an area of specialized practice in and of itself.

Pilar agrees with our view that pregnancy is NOT a contraindication for SI work.

These are the qualifying conditions for SI work with pregnant women:

Most miscarriages occur during the first trimester. After the first trimester the fetus is more securely implanted in the uterus and miscarriage is much less likely. It is highly unlikely that SI work would result in the loss of a pregnancy but to avoid any possibility of the work being associated with an event of this kind, work in the pelvis, abdomen, and upper thighs should be avoided during pregnancy.

SI work with the client in a side lying position on the neck, shoulder girdle, rib cage and lower back can be very helpful in alleviating the difficulty of breathing, feeling of crowding in the diaphragm, and various back and neck aches and discomforts experienced, especially as the pregnancy progresses. It will also help the client accommodate the structural imbalances and changes that are part of pregnancy.

If your work is forceful, then we suggest finding ways to work that are less intrusive and more appropriate when working with pregnant women.

Any work on the lower extremities should be gentle and done with caution, especially during the last trimester and/or if there is any swelling present.

Note: inquiring about the reproductive history of a woman adds pertinent information about the phase of life they are in and will alert the practitioner to considerations in the work. In younger women the possibility of pregnancy may exist, while osteoporosis is often a factor in post-menopausal women. Asking about the number of pregnancies relative to live births will alert you to possible physical and emotional trauma requiring emotional maturity and sensitivity on the part of the practitioner.

Miscellaneous

- **Whiplash/acute soft tissue injuries** are often very improved with appropriate gentle SI work very close to the time of injury. This kind of SI work can reduce scarring and adhesions and hasten recovery and improve mobility.
- **Hemophiliacs**—SI work only with physician’s release and appropriate (non-forceful) tissue work.
- **Hodgkin’s Disease**—SI work is contraindicated in acute phases and during treatment. Physician’s release should be obtained. If this is in the client’s past history and has been successfully treated, it is not a contraindication. If in doubt, obtain a physician’s release.
- **Osteopenia** is a diagnostic stage of early thinning of the bones and is not a contraindication.
- **Osteoporosis**—this is variable and depends on the stage/degree of osteoporosis. Generally forceful work should not be done in the presence of mild to moderate osteoporosis. We also suggest that the practitioner learn alternatives to seated bench work with clients with mild to moderate osteoporosis. Severe osteoporosis is a contraindication. If in doubt, obtain a physician’s release.

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The Functional Rationale of the Recipe

by **Monica Caspari, Certified Advanced Rolfer, Roling Instructor
Rolf Movement Practitioner, Movement Instructor**

*"Although man needs continuity, form and limits, he is open to the infinite and to the universe."
Berdiaev¹*

This paper is an attempt to synthesize the author's years of study and teaching of Roling[®] and Rolf Movement with the concepts she has learned from Hubert Godard – Rolfer, movement educator and dancer, brilliantly articulate on many occasions in Brazil, America and Europe. The author wants to express to him her deepest gratitude for his capacity to share his academic knowledge and wisdom of experience.

With this work, the author wishes to honor the genius of Ida P. Rolf; and to thank Vivian Jaye and Jane Harrington, who planted the seeds of the author's personal curiosity about movement and who, together with Pedro Prado, nurtured her vision of Roling. She also wishes to acknowledge the community of Brazilian Rolfers, whose members have contributed generously to the development of the "Brazilian personality" in Roling. She also thanks her Roling instructors Jeff Maitland, Stacey Mills, Michael Murphy, Gael Ohlgren, Peter Schwind, Heather Starson and Jan Sultan; and her colleagues – especially Lael Keen, Robert Schleip and Adjo Zorn – and all those who have studied with her. They all contributed. Finally, she thanks Heidi Massa for her input and assistance with this paper.

ABSTRACT

This paper describes the functional logic of the recipe and proposes a point of view that addresses the client's subjective experience of function. For each session, it describes the functional goals and poses pertinent questions about perception (concerning the space-time relationship) and about coordination (concerning the centers of gravity and biomechanics). It also explains the dif-

ference between structural lesions and functional inhibitions, and indicates considerations relevant to teaching Rolf Movement. It suggests an approach that aims to treat clients not only for them to "look better" or "feel better," but also for them to express themselves better and take fuller advantage of the human condition – which includes the body and its inherent movement potential. Therefore, it proposes a 50/50 blend of structural and functional work.

INTRODUCTION

All of us have wondered what makes some structural integration processes more successful than others. At all times, we are dealing with three sources of limitation: the practitioner, the client, and the technique itself. It is not enough to look at the practitioner's and client's limitations. We cannot discard the possibility that some cases are less successful than they might have been because of limitations in Roling itself, as currently practiced. It is in this spirit that the community has been exploring cranial-sacral and visceral manipulation, biomechanics, and many other techniques, to see how they work in the context of Roling. This article argues that the logic of the recipe is absolutely functional; and that if we really integrate function into our toolbox, our success rate will certainly improve.

LESIONS VERSUS INHIBITIONS

Life is about action – especially interaction and exchange with the environment and

others. This dynamism of life is the key to its capacity to renew itself. It differentiates living organisms from machines. But until now, as a community, we have been better at defining the static line than the dynamic line in motion. Accordingly, we have been better at working with the body in a static state than with the body in motion. While the structural work liberates fixations in the tissues, functional work addresses fixations in movement patterns. While structural work gives conditions for the appearance of the line, functional work gives the line life.

To differentiate structural fixations from movement fixations, Godard calls the first lesions and the second inhibitions. Lesions – unlike inhibitions – manifest as restrictions of fascia or joints when the client is tested for passive range of motion. Lesions are best addressed at the manipulative or biomechanical level, while inhibitions must be addressed at the perceptive and coordinative levels (the perceptive level having to do with the senses and the coordinative level with neuromotor pathways and muscle firing sequences.)

Long-term inhibitions often become lesions, which may appear at the site of the inhibition, or somewhere distant from it. Consider: we average 16,000 to 20,000 breaths and 11,000 steps per day. Inhibitions that affect our breathing and walking can create much of our restriction, malfunction and pain.

Godard calls posture the potential for action. Each of our movements is initiated by largely unconscious Anticipatory Postural Activity (APA, or pre-movement), which frames the potential for action and coordination. The APA sets the initial condition, or the starting place, from which we move. The APA is a function of our perception of where we are in space and in relation to gravity – which perception, in turn, affects and is directly affected by the coordination.

Inhibitions are not restrictions in the tissues, but rather holdings or attitudes in the APA. Inability to perform a particular movement is often linked to an inhibition in perception – i.e., a lack of correct information. In such cases, to enhance the client's potential for movement, we must first address perception. If someone cannot perceive a bodily sensation, we help the person to develop a vocabulary of sensations. If the difficulty persists, we might use other sensory channels – such as sight, hearing or touch –

to access the missing feeling.

Inhibitions arise from the body image (dictated by our subjective experience, personal history and beliefs) – not from the body schema (the “animal” in us). Inhibitions originate in how we perceive the world, which implicates our emotions. Therefore, the release of APA inhibitions often occurs in part at the psychological level.

HOW TO TEACH MOVEMENT

As Rolfers, we are after grace, pleasure, aliveness, and coherence of the body in motion. Deliciousness, joy and happiness are more important than perfection.² Thus, the first step is to develop a kinesthetic compassion for the client, to establish a kinesthetic conversation, to receive the client’s movement. To this end, we read the client’s body through our own body, allowing ourselves “to be touched” in a broader sense by the client. We must, at least initially, suspend all interpretations and only feel what we see. Remember that there are always benefits – be they antalgic, structural, psychological or social – in the client’s existing posture and movement patterns. We do not want to deprive the client of these, but to offer greater and healthier possibilities by taking all the sub-systems of the body to the next possible level of integration.

We could speculate that the human being was designed for walking and running, but not so much for sitting. It was not designed at all for flying or swimming under water. We were made for living outdoors, sticking our heads out and up to see where we were going and to make sure no big cats were after us. Primitive man walked or ran about eight miles per day to find food – barefoot, with feet adapting to the irregularities of the ground.

Even though breathing never required our ancestors’ conscious attention, our “problems” with it might have originated with the need to control it in order to speak. We also went indoors and got more complex in our way of relating to kin. We tucked our necks and heads inward and started relating more to the eyes of the other than to the distance outside. Thus, by means of socialization we tended to lose the “up” direction, the orientation towards space. More and more we liked to stay inside and to sit. This requires little stamina, so our breathing became more abdominal, weakening our deep abdominal muscles. Then we de-

cided to wear shoes, which became more sophisticated as time went by, until we no longer had to use our intrinsic muscles of our feet and we became even softer. Our steps became shorter, we stopped using our knees as they were designed, and thus we developed knee and sacroiliac pains, which in turn... The story goes on and on: one day we had the idea of eating highly refined food – of creating fast-food chains and grocery stores – and our guts started to malfunction...

Movement instruction is not about correcting, fixing, or changing the client. Rather, it is about increasing the possibilities for the person to be in the world. To teach movement is to address the phenomenology of the most basic movements.³ Phenomenology aims to understand – rather than to explain – phenomena, and takes the experience of the person as the starting point. It considers the experiencer, and the fact that any experience occurs within a certain context. For Rolf Movement, this means to recognize that the client experiences movements in the context of both relationship to things and other persons and to the force of gravity.

Because it occurs in context, a movement is more than the sum of its deconstructed biomechanical parts. It follows that we cannot teach a movement by deconstructing it. This is not to say that we should forget biomechanics, but only that – however important the biomechanical aspect might be to the practitioner – it is generally not the best route for introduction or reinforcement of new openings for the client. Beyond cognition of movement, we want consciousness of movement. In other words, we want awareness combined with reflection, and the ability to concretize experience in language.

The look of a movement is a gestalt: a structure, configuration, or pattern of physical, biological, or psychological phenomena so integrated as to constitute a functional unit with specific properties. Look at the figures on this page. They are gestalts: you can see the old lady, the young girl or the moustached man – but you cannot see more than one of them at once. The same is true with the “two faces” versus the vase. To teach any movement, we must first see its gestalt. To know the functional logic of the recipe and to own the functional goals of each session helps us to see the gestalt of the movement we want to evoke in each session.

The biggest problem for motor activity is perception because, prior to any movement, we must orient to our surroundings. Perception is neither proprioception nor sensation – which requires transition from the



Figure 1: Old lady or young lady?

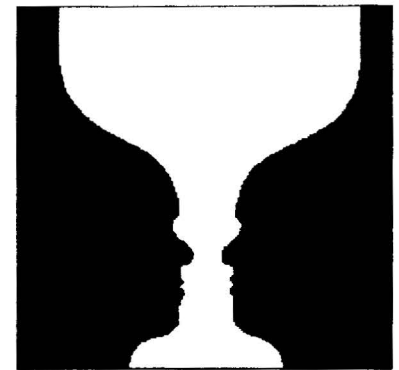


Figure 2: Two faces or a vase?

Examples of Gestalts

physiological to the emotional and cognitive levels. Perception does, however, concern our senses, especially with respect to how we orient to the information coming from proprioception, touch, sight and hearing, as well as smell and taste. The senses can be focused inside or outside the body. We have all experienced times when we were so focused on “seeing” our own thoughts that we failed to see or hear some-

one right in front of us or talking to us (in these cases, seeing and hearing are focused inside). We have also experienced being so engrossed by our surroundings that we have “forgotten” to eat or drink.

Intra-sensoriality refers to this dynamic of orienting one of our senses either inside ourselves or outward into the environment. Inter-sensoriality, on the other hand, refers to the phenomenon of one sense seeming to assist another. Does your sense of smell enhance your ability to taste? Is your hearing better when you are wearing your eye glasses? A similar phenomenon occurs in blind people who “see” through their highly developed sense of touch.

Perception is fundamental to spatial orientation. Thus, to teach movement, which depends on perception, is to address how the client organizes space, both internal and external. Through our personal history, culture and symbolic constructions, the perception of our bodies – as well as of the immediate surrounding external space in which we can act (the kinesphere) – diverges from objective reality. This divergence can distort the kinesphere – in essence, flattening it. When we reconstruct our perceptions of both the body and the kinesphere into ones less divergent from objective reality, we restore our possibilities of being.

In fact, we cannot really teach movement cortically because the person’s coordinative structures, which depend on the person’s perception, are too strong. All we can do is change the landscape that forms the context for the person’s movement. This does not mean to change the person’s surroundings, but rather to change the way the person perceives them, and therefore relates to them.

Perception and coordination come together like the two faces of a coin. Coordination refers to the interplay between tonic and phasic muscles⁴ and local and global muscles⁵, as well as the sequence of their firing. The moment we affect perception we change coordination, and vice-versa. What’s more, as we affect perception, we affect the sensations. And because sensation is the bridge between the physical and the emotional, we can affect the person’s psychology through work with perception and coordination in the context of gravity. Perhaps this is a gravity-oriented psychology, and we have arrived at the Rolf Movement Circle of Being, with its physical, mental

(rational/cognitive), emotional and spiritual aspects.⁶

Organization of perception and coordination should involve the deep stabilizing muscles, which are the most important ones to stimulate in order to evoke the intelligence of the body. However, proper action of these muscles depends on the initial condition of the APA – which, in turn, depends on perception and the ability to project (imaginary) vectors in space. When working with perception, we must address the imaginary – not the imagination. We do not want to create stories, but to evoke the representation of a potential movement. The imaginary process creates the possibility of vectors in space that allow the flow of movements.

In teaching the flow of a movement, its coordination should be addressed before its form. The key is to allow plenty of time for exploration of the movement, and to reinforce it many times and in many different ways. The more plastic the coordination, the better it is – and the more the person will be able to maintain it with changes of context.

We want to teach movements that flow – not sequences that are imposed. For this, we as practitioners must put 99% of our effort into “hearing” with our own bodies, and the remaining 1% into evoking the desired movement in our own bodies. One must become an appropriate body schema that communicates wordlessly – but empathically – with the body schema of the client. The client will then unconsciously entrain with the practitioner and mirror the practitioner’s movement or tonic state. In this manner, the Rolfer induces the desired function in the client. Godard calls this phenomenon *metakinesis*.

To evoke fluid movement, the practitioner needs to give precise information with the correct organization and timing. This is not easy, and requires relating to the client in a clear and clean manner. The practitioner must orient in at least two directions: I must be in myself and with the other at the same time. But implicit in this “ambi-valence” is the existence of a boundary between the client and myself. Along with the possibility to go to the other, I must have the option not to go. Only if I have my own kinesphere and spatial orientation intact can I effectively touch the other.

This quality of touch is especially power-

ful for clients with poor proprioception. When I touch my client where there is a hole in the sense of touch in his skin – and therefore also in his proprioception – it restores the lost proprioception, and with it, the possibilities of the other senses. Therefore, I must touch my client in 3-D, from my own substratum (base of support) and space orientation. This implies that I must change my own tonic organization to inform my client at the somatic level. When teaching movement, the first challenge is not to change the client, but to change ourselves.

Similarly, in body reading, the initial question is not about the client, but about the practitioner. We must first rest our analytical eyes and be open to receiving information through our own bodies and in our own bodies, with kinesthetic empathy (not kinesthetic sympathy, lest we lose our own centers). We must cultivate the ability to receive, to resonate, to welcome the movement of the client. As Godard says, “The practitioner should give benediction to the movement of the client even when he does not succeed and [then] start all over again, from the anticipatory postural activity.”⁷

A good body reading captures the melody of the client. We must read the client’s movements in all three planes (flexion/extension in the sagittal plane, abduction/adduction in the frontal plane, and rotations in the horizontal plane). No model of seeing the static will suffice. We know what the static line looks like, but what does the dynamic line look like? A functional model of seeing should imagine the best possible flow of movement, given the specific anatomy of the client. With a good idea of what this movement might look like, the practitioner can identify the impediments to it, whether they be lesions – or inhibitions at the levels of perception, coordination or meaning.

To know by heart the functional (and structural) goals of each session is fundamental to movement work in the context of Rolfing. However, in any session, the most important questions in a body reading are:

- Does the client have support from the substratum (ground) and from space?
- Where are the gaps in the client’s perception?
- Where are the gaps in the client’s coordination?
- What and where are the client’s resources?

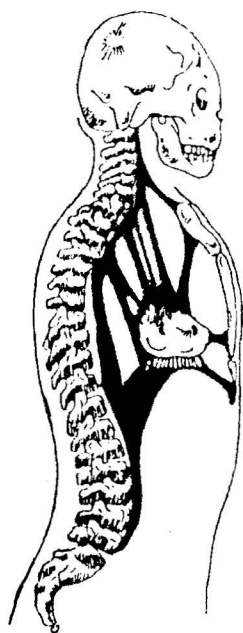
- Where and how can the practitioner meet the client?

THE FUNCTIONAL LOGIC OF THE RECIPE

"No, I don't have a new path; what I have anew is the way of walking." Thiago de Mello⁸

SESSION 1

Structurally, Session 1 concerns the relationship of the thorax to both the pelvis and the shoulder girdle: we want to differentiate the thorax from each of these, mobilize the pelvis around a horizontal axis, and free the breathing pattern. Functionally, it concerns coordination between the thorax and the pelvis and release of shoulder girdle impediments to thoracic motion. If any of this is not good enough, the lumbar will become problematic, which will affect the breathing. Walking will also become problematic due to the attachment of the psoas to the lumbar. To paraphrase Vivian Jaye⁹, the way we breathe is the way we walk, and vice-versa.



Observe the interplay between the diaphragm and the curves of the spine. The diaphragm also shares a pattern of mutual influence with gait, as it relates to the spine via the psoas. From *La Respiration*, Ph.-E Souchart, Portuguese language version, p. 19. Brazilian edition by Summus Editorial, 1989, ISBN 853230360-9.

As already noted, posture is the potential for action – including the action of breathing. If the thorax is behind the pelvis, the weight will go down to the heels and the feet will lead the gait. This pattern tends to have abdominal breathing. However, if the thorax is slightly in front of the pelvis, the person will have more balance in walking, with more forward and outward movement. This pattern tends to have thoracic breathing. Finally, if the thorax is behind the pelvis but the shoulders are medially rotated, the person will show tense superficial abdominals and the pelvis will lead in walking. This pattern tends to have thoracic breathing with more lateral expansion.

Breathing also requires a balance between the directions upward into space and downward to the base of support. More specifically, inhalation orients up into space, which requires freedom in the neck and head. Exhalation orients to the ground, which requires support from below.

There is much discussion about which is "correct" breathing: abdominal or thoracic. Ideally we would like to have both available, depending on the situation. Pure abdominal breathing is better suited for relaxation (parasympathetic activation). It uses about 25% of the lung space, with the central tendon of the diaphragm descending and substratum orientation being dominant. It is the release of the transversus abdominis that allows the descent of the central tendon.

Thoracic breathing is better suited for action and rapid motion (sympathetic activation). It utilizes up to 75% of the lung capacity, using the central tendon as the fixed point against the action of the infra-umbilical portion of transversus. The dome of the diaphragm elevates with the chest. The transversus activation that facilitates thoracic breathing also stabilizes the lumbar. If the lumbar act as the fixed point, the proximal portion of the crura will be pulled downward. (What we call the "diaphragm" is really two different muscles: the dome of the diaphragm – with its central tendon – and the crura. They have different embryological origins and innervation.) Thoracic breathing opens the torso and is congruent with orientation to space – although it is still necessary to connect with the substratum to activate the transversus and the lower internal obliques).

Average breathing is a mixture of these two extremes, starting with descent of the cen-

tral tendon, followed by elevation of the lower chest.

Over-activation of the external obliques and rectus abdominis causes posterior pelvic tilt – which, in turn, diminishes the lumbar curve and directs the descending force of the diaphragm to the pelvic floor (which is not so good, as we shall see later). When the transversus abdominis and internal obliques work properly to stabilize the lumbar, the normal curve of the lumbar is preserved, and the descending force of the diaphragm goes toward the sub-umbilical region, where it is countered by the transversus. The rectus abdominis can stay relatively soft. Should the transversus and internal obliques not engage adequately, the rectus will activate and inhibit thoracic breathing by restraining the sternum.

Starting the series with the breathing has an ontogenic logic: the first thing a newborn does to adapt to the new environment is to take a deep in-breath.¹⁰ It is automatic, and depends on basic neurological and biomechanical mechanisms.¹¹ But the experience of breathing, just like any other experience, is by no means common; it is unique for each of us.

The main *functional goals* of Session 1 are:

- Does the client have support from the substratum (ground) and from space?
- To optimize the coordination between the thorax and the pelvis.
- To free the chest from the shoulder girdle and arms.
- To organize the orientation to space (eccentric breathing tends to take us into extension, while concentric breathing tends to take us into flexion.).
- To organize in the sagittal plane the relationship of G' — the center of gravity of the trunk, head and arms, found at or near the level of T-4/T-5 – in relation to G (the center of gravity at the pelvis, found at or near the level of L-5/S-1). To organize the general center of gravity G in relation to the line joining the front of the malleoli is a subject of the second session to reinforce from below the work of the first session.
- To organize with the horizontal axis between the heads of the femurs the relationship between G' and G. This has to do with G' and G in relation to anterior and posterior pelvic tilt.

The main *questions of perception* (space-time relationship) are:

- Does the client have the potential to adapt to changes – or is the client too generally rigid to do so?
- Does the client have the potential to breathe in the chest?
- Does the client have the potential for the yes?
- Does the client have the potential to receive?
- Does the client have the potential to open towards space?
- Does the client need to develop the connection from the inside towards the outside?

The main *questions of coordination* (biomechanics and centers of gravity) are:

- In relation to G', do the arms rotate slightly laterally when the client inhales?
- Do the arms have the capacity to reach?
- Can the client have a more congruent angle for the head?

SESSION 2

In Session 1, we worked with orientation to space (reaching) and coordination between the thorax and the pelvis through the mobilization of the pelvis around the horizontal axis that joins the heads of the femurs. The latter affected the spine, perhaps evoking more resilience and responsiveness in the multifidi, which rotate and stabilize the vertebrae. In this respect, we were already improving the orientation towards the substratum and the system of support and the continuity through the spine.

Nothing in the integrated body works in isolated planes, which is why one sign of integration is the appearance of contralateral motion. Contralaterality occurs on three levels – the spine, the girdles and the limbs – the most important of which is the spine. Spinal motion takes the form of spirals and torsions. In walking, the torsion from the lower body should meet the counter-torsion from the upper body at or near T8/T9. Similarly, at or near C7, the torsion of the thorax meets the counter-torsion of the neck. Many traditions recognize energetic centers – the solar plexus and the *Da Zhui* acupuncture point, for example – at or near these functional centers. Difficulties arise when the action of one spiral over-

powers the action of another.

Integrated walking depends on the spinal torsions and counter-torsions that occur within the span between the feet and the head. The points where torsions change to counter-torsions are the points where a lordosis meets a kyphosis. This spinal movement is itself generated by myofascial tension originating in the legs during walking. First, biceps femoris triggers both multifidus and transversus abdominis, and longissimus lumborum and iliocostalis. Then, the iliotibial tract triggers gluteus maximus and the contralateral latissimus dorsi. These forces, acting on the bony structure of the axial complex, allow the alternating torsions of the spine. The shape of the bony structure also allows the efficient transmission of these forces to generate equal and opposite motion of the pelvis, on the one hand, and the shoulder girdle, on the other.

Imbalances in the relative lengths of the *functional* lordoses or kyphoses (the *functional* lengths of these curves do not necessarily correspond to the *anatomical* definitions of the lumbar, thoracic and cervical regions) will distort contralaterality in the spine.¹² Such imbalances in the spine are frequently caused by disturbances in the breathing pattern. So, as we treated the back to improve breathing in the first hour, we were already addressing walking. In the second hour, we shall take both walking and breathing to a higher level of integration.

In infants, the head – with its vestibular apparatus¹³ and sub-occipital muscles dense with proprioceptors – is the first center of gravitational orientation to develop. The second is the feet, the soles of which have thousands of baroreceptors to inform the brain stem and the cerebellum. These brain regions organize our verticality and balance in standing and in walking. Thus, the feet are key to our relationship with gravity – functionally, as well as structurally.

The legs must generate the tensions that produce the spinal torsions, yet the position of the feet and head must be independent of those torsions to maintain forward orientation. What happens biomechanically during the unipodal phase of the gait? First, the body weight transfers from two feet to one foot via the tibia and fibula of the standing leg towards the talus – and from there to the lateral arch, composed of the calcaneus, the cuboid, and the 4th and 5th meta-

tarsals. The weight then goes to the transverse arch, from whence it is distributed to the medial arch. Meanwhile, the femur of the standing leg medially rotates in relation to both the pelvis and the tibia (the *screw-home*).

Now, the foot of the standing leg can push off against the substratum. This causes the pelvis to shift over the standing leg. The broader the pelvis, the larger this shift, and the more pronounced the internal rotation of the femur. In a narrow pelvis, the rotators and adductors tend to counter-balance – and sometimes even oppose – the medial rotation of the femur. Lateral shift of the pelvis over the standing leg causes the sacrum to side-bend to the opposite side.

Here is a template to help us see walking:

Broadly speaking, we are looking for movement in three planes. As the weight shifts from one leg to the other, we want to see the pelvis shift laterally in the frontal plane. When the non-weight-bearing leg swings forward as the standing leg remains fully extended, the pelvis rotates in the horizontal plane. Finally, an adequate relationship with both the substratum (*down* direction) and space (*up* direction) requires balanced movement in the sagittal plane. Excess motion in any plane will inhibit motion in the others.

We want to see coordinated transmission of weight through the arches, but we do *not* want to see the legs dissipating the torsional forces. Proper differentiation of the lateral and medial arches allows the foot to maintain a sagittal orientation upon weight transfer as the tibia laterally rotates and the fibula descends to transmit the weight to the cuboid and the 4th and 5th metatarsals. The standing tibia should slide freely anterior over the talus, even as the heel remains in full contact with the ground. If the tibio-talar joint is not free to articulate fully in the sagittal plane, we will see locking or compression of the spine.

We also want functional toes, especially the hallux, 2nd, and 3rd toes. Without an articulating hallux, we will not see full extension of the posterior leg. The hallux and its two neighbors must take full advantage of the floor and use it to propel the body forward – just as the tires of a car push the road back to propel the car forward. What's more, absence of hallux articulation is a sign of a shortened psoas, as articulation of the hallux corresponds to the lengthening of the



Notice how the aboriginal person (far left) and Jesse Owens, who won four gold medals in Berlin 1936 (far right), have their whole bodies and senses oriented in the same direction – extending their legs back (using their toes) and looking where they're going – while the vision of the runners in the center picture is oriented away from the direction of travel. Also notice how the aboriginal person's front heel is reaching into the ground, while the heel of the person in the foreground of the center picture is not.

psoas, which can then contract efficiently through the stretch reflex. Finally, the hallux should orient straight ahead. Any muscle action that impedes the medial rotation of the femur will diminish the economy of the movement. If the rotators cause the leg to rotate laterally, the walk will come from the adductors, creating unnecessary friction of the hallux with the substratum (and sometimes even creating or reinforcing bunions).

The knee of the extended leg should extend fully, opening the "knee lordosis"¹⁴ and transmitting the impulse from the feet as they relate to the substratum upwards toward the spine. Many knee problems develop because the knee joint never articulates fully, as a result of which the meniscus is not massaged and nourished adequately. We also want the leg to come forward by the activation of the psoas stretch reflex – not by the quadriceps, whose action inhibits the psoas and can deflect the direction of the knee off the sagittal. This is important because the position of the knee determines where the foot will land.

the substratum while the standing foot remains totally on the ground. Otherwise, the walk will lack support. Absent support from the calcaneus of the standing leg, the body cannot take full advantage of its design for efficient walking.

Functionally, the second hour presents an excellent opportunity to activate intrinsic muscles throughout the body. Finding the intrinsic muscles of the feet in walking (opening the feet to the floor) helps release tight hamstrings (which affect the pelvis, the spine, and ultimately the breathing). Because the bones of the feet – via the ligaments – have an intimate relationship with the thorax and the cranium, work with the feet activates the intrinsic muscles of the thoracic and cranial spaces.

Evoking spiral movements in the trunk will help activate the intrinsics and thus improve coordination. While working on restrictions in the foot, ankle or leg, invite the client to reach across the chest. If you are working with the right foot, ask the client to reach with the right arm. The motivation of the action influences the sequence in which the muscles fire: if the client *reaches* across the chest, the internal obliques fire first; but if the client *pushes*, the external obliques fire first. Asking the client to *reach* will evoke the firing of the intrinsics first. This allows freedom of movement in the thorax during walking.

The *functional goals* of Session 2 are:

- Open the *down* orientation to the substratum.



The effect of aesthetic norms on foot structure. Schematic of the bony structure of a Chinese woman's wrapped foot, compared to an x-ray of a foot in a high-heeled shoe.

The next step should be initiated by the dorsum of the foot (instead of the calcaneus) with the ankle joint loose, the foot working more like a paw than a hoof. The calcaneus of the swinging leg should be able to reach



Photo of a Chinese woman's wrapped feet: Any resemblance to the shape of a foot in modern pointy-toed shoes?

- Improve the capacity of the feet to *land* and *take off* so that they function as both shock absorbers and catapults.
- Improve the quality of support through the legs.

The main *questions of perception* (space-time relationship) are:

- Does the client have the capacity to exhale? Although we address the breath in Session 1, full support through the legs reinforces the exhale.
- Does the client orient to the substratum?
- Do the feet have the capacity to *reach* to the substratum?
- Does the client have the capacity to feel or perceive the substratum because *there is* a substratum below?
- Does the client have the capacity to orient and open towards the caudal direction during the manipulation?

The main *questions of coordination* (centers of gravity and biomechanics) are:

- Do the ankles give support for G, the general center of gravity?
- Are the toes active, such that the client can push off the substratum and leave it behind?
- In walking, is there mobility in the sagittal plane at the tibio-talar joint?
- In walking, is there mobility in the frontal plane at the subtalar (talocalcaneal) joint?
- Are the three arches coordinated? (The landing happening in the lateral arch; the transmission of weight going from the lateral arch to the medial arch through the transverse arch; and the take-off happening through the medial arch, with active hallux and second and third toes?)
- Is there freedom of movement in the interosseus membrane (balance between the short and long flexors and extensors?) If so, when the calcaneus is reaching for the ground the toes remain relaxed (not grabbing); and when the body weight flows into the foot, the toes seem to lengthen away – like tooth paste flowing out through the tip of the toes.
- Is there balance at the knees between the lateral and medial hamstrings?
- Are the suboccipitals free during the ex-

hale? (Having the client reach with the hands or the chin can help release the suboccipitals)

- Are all five lordoses working in harmony? (When the lordoses are working in harmony, they all flex and extend with fairly equal amplitude; when one or more of them are out of sync, all lose their synchronized movement, and one or more will flex or extend to a different degree than the others).

SESSION 3

In the first hour, we improved the relationship and coordination between the thorax, on the one hand, and the pelvis and shoulder girdle, on the other hand (orientation to space). In the second, we sought to improve the relationship and coordination of the lower limbs (especially the feet and lower legs) among themselves, on the one hand, and to the spine and the substratum, on the other hand (orientation to the ground). Now we will address the relationship between the anterior and the posterior aspects of the body – especially in the torso. While Sessions 1 and 2 focused on the sagittal plane, Session 3 focuses on the frontal plane (abduction and adduction). Put another way, we will treat the themes of the first and second hours from the side. This takes to the next level the client's balance, orientation to space and substratum, and expression of G' in breathing and G in spinal flexion and extension.

We have defined *posture* as potential for action. But we can also see posture as an accumulation of attitudes. Attitudes concern our relationships with others and things. When the lateral line is disorganized, it is disorganized *in relation to* other persons and the environment. Godard teaches that social anxiety (emotional discomfort) manifests through disorganization of the lateral line of the torso, such that one will be unable to be in a particular space or in oneself. With this disorganization, the person's *volume* gets lost.

Traditionally, we achieve the lateral line by organizing in the frontal plane the pelvis in relation to the hip axis and the shoulder girdle in relation to the thorax. We also free the 12th ribs to allow organization of the pelvis in relation to thorax.

When doing the upper-body portion of Session 3, we habitually underestimate the role of serratus anterior in the organization of the lateral line, shoulder girdle and upper

limb. According to Godard, serratus anterior is the "king of the shoulder girdle." If the serratus anterior is not working properly as a local stabilizer, the global trapezius will undertake the task of upper girdle stabilization – instead of being free to perform movements and more global stabilization. Instead of being supple and elastic, these global muscles become hard and inelastic. Activating and bringing into the body image the client's weak serratus during the third hour begins the task of balancing the action of the local and global muscles of the shoulder girdle.

Having already addressed the three lower lordoses (the root of the toes, the plantar surface of the foot and the back of the knee) we will now address the lumbar and cervicals. As the legs become more differentiated from the pelvis, we expect the lumbar to be freer of the pelvis, as well. For example the lumbar should have control of the glutei – not *vice versa*. Likewise, having differentiated the arms from the shoulder girdle and the shoulder girdle from the thorax, neck and head, we expect that the arms can move without impinging upon the cervical lordosis. The cervicals should have control of the deltoids – not *vice versa*.

In the lower body, good differentiation of the leg from the pelvis (as well as its prerequisite – coordination of the lower limb joints) increases potential forward flexion of the torso at the hip joints, which allows the thorax to be free of interference from the legs through the pelvis – such as short hamstrings restricting the position of the thorax by distorting the position of the pelvis. Ultimately, it is the legs having independence from the pelvis that frees the thorax. The possibility of forward flexion from the hips (instead of from the waist) frees the pelvic floor, and thus allows awareness of visceral space. Perhaps this explains the importance of releasing lesions in the trochanters in the early hours.

In walking, whatever the lower limbs fail to do will have to be accomplished by the pelvis or the thorax. In general, men tend to hold the pelvis in the frontal plane and compensate with more movement in the thorax or shoulder girdle; while women tend to swing the pelvis more in the frontal plane and compensate with reduced movement in the thorax and shoulder girdle. In both cases, the relative motion of the girdles is out of balance; and the lumbar are re-

stricted by either the pelvis or the thorax. When we work to free the 12th ribs, we are in essence liberating the lumbar from the girdles – which is a step in the direction of balancing the girdles relative to each other.

As in the second hour, the third hour presents opportunities to activate the client's intrinsic muscles. When the intrinsics are active, the extrinsics cease to work to stabilize the body, and can remain elastic and fluid. One of the many reasons to activate the intrinsic muscles of the foot (especially the short flexors of the toes) is this: connecting to the substratum via the intrinsics of the feet helps activate the intrinsic short flexors of the hands. This, in turn, helps to balance the shoulder girdle with the thorax and the front with the back. In the third hour, we remind the client to find the intrinsic muscles of the feet, and from there teach the analogous movement of reaching with the hand, rather than the shoulder.

However, the client's intrinsics respond best when stimulated by activity in the practitioner's intrinsics. A good start is to find the intrinsics of your own feet and allow yourself to receive the client. Then, tracking the client from your own sternum (G'), you can evoke movement in the client by offering information to the client's body directly from your own.¹⁵

The embodiment of the lateral line introduces the issue of abduction v. adduction, and foreshadows the fourth hour question of the medial line of the legs. Contralateral movement requires transition of movement from the sagittal plane (extension and flexion in the first two hours) to the frontal plane (abduction and adduction). Encouraging the client to reach – to project a vector into space, or to invent the space into which to move – to the opposite side with either the feet or hands will help the client embody the lateral line of the third hour – as well as the medial line of the fourth hour.

The *functional goals* of Session 3 are:

- Balance orientation towards the substratum (ground/down) and the surroundings (space/up). Look for equal responsiveness at the pelvis/legs and shoulder girdle/chest.
- Balance the expression of G' in breathing, such that G' can go forward and up in inhalation, and back and down in exhalation.
- Balance the expression of G so that it

moves backward in flexion and forward in extension.

- Free the lumbar from interference by the pelvis and thorax.

The main *questions of perception* (space-time relationship) are:

- Is there balance between interoception (sense of the inside) and exteroception (sense of the outside) – allowing the person to inhabit more of the inside and outside space?
- Does the pelvis have the possibility to reach towards the substratum?
- Do the shoulder and hand have the possibility to reach for space (others and things)?
- Is there a glimmer of perception of the visceral and thoracic spaces?

The main *questions of coordination* (centers of gravity and biomechanics) are:

- Are the tonic and phasic muscles of the trunk balanced?
- Is there clear flexion from the hip hinges (the beginning of the visceral space perception)?
- Do the arms have the capacity both to reach and push across the trunk?
- Is there balance in the lateral line from the neck to the heels? Are the scalenes and suboccipitals free from the sternocleidomastoids or are they being overpowered by the SCMs? Is the serratus anterior stabilizing the scapula – or is the scapula being governed by the trapezius, levators and pectoralis minor? Are the lumbar governing the glutei – or are the glutei impinging on the lumbar? (Too much glutei in relation to iliopsoas will disturb the psoas function.) Is an overactive tibialis anterior causing the soleus to grab, thus inhibiting the action of the intrinsics of the feet?
- What is the next level of contralateral coordination between the legs and the arms? Ideally, we would like to see equal movement for the legs and arms.
- What is the next level of integration between the shoulder and pelvic girdles in terms of transmission of motion from the sagittal to the frontal plane? Have we begun to evoke contralateral movement as the client perceives a more “round” field?

SESSION 4

We have already seen that differentiating the legs from the pelvis and organizing the pelvis around the hip axis allows greater forward flexion of the trunk, which brings awareness of the pelvic floor and visceral space. However, imbalances in the frontal plane of the legs (relationship between abductors and adductors) will restrict forward flexion of the hip joint. Try this yourself: standing with your legs in “neutral,” flex the trunk forward at the hip joints. Then try flexing with your legs in lateral or medial rotation, and feel the diminution of flexion. In Session 4, we continue the Session 3 work in the frontal plane to improve the relationship between the legs and the pelvis and begin to improve the capacities of the pelvis in locomotion.

Whenever there is a problem in the coordination of the five lordoses, the pelvis will have to compensate with either anterior or posterior tilt over the femurs. When Ida Rolf talked about a “horizontal pelvis,” perhaps she meant a functionally neutral pelvis, neither posterior-tilted nor *excessively* anterior-tilted. In fact, we need a bit of anterior pelvic tilt for optimal spinal action and pelvic floor integrity – *i.e.*, for proper walking and breathing.

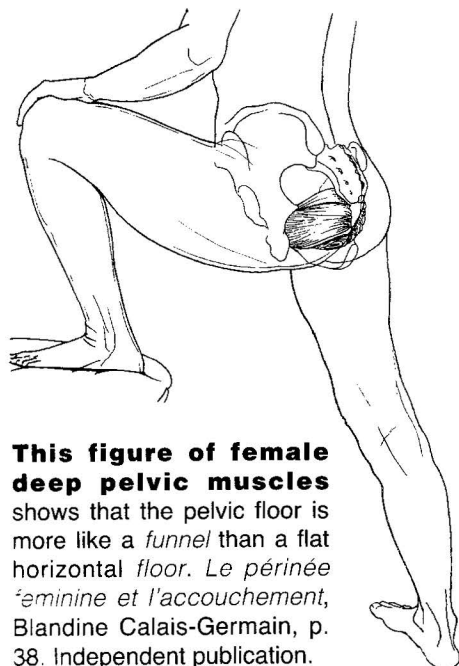
When the pelvis is not functionally balanced, its movement in walking will not be balanced in the frontal plane: someone with too much movement of the pelvis in the frontal plane (which tends to go with orientation towards the substratum) will tend to walk from – rather than through – the pelvis. But a person who has limited pelvic movement in the frontal plane (which tends to go with orientation to space) will tend to walk from – rather than through – the thorax.

First, as to walking, if the pelvis is really *horizontal* – without any anterior tilt at all – the person will lose the lumbar lordosis, and the functional mechanics of the contralaterality in the spine will be subverted. Excessive anterior tilt of the pelvis tends to cause medial rotation of the femurs, while the posterior tilt of the pelvis tends to cause their lateral rotation. If the pelvis has too much lateral travel in the frontal plane during walking, the sacroiliac joint will never close adequately when the foot is reaching the substratum (the *exhale* phase of the step). Without good SI closure, the sacrum and lumbar are dragged by the action of the legs. Conversely, if the pelvis

has too little lateral travel during walking, the sacroiliac joint will never open adequately when the homolateral leg is in the swing phase. Eventually, impaired opening or closing of the SI joint produces poor transmission of motion to the spine, interference with contralateral spinal motion, and SI pain; the dynamics of both breathing and walking are adversely affected.

In walking, the femur of the extended leg rotates slightly medial. The lateral rotators and glutei react to close the sacroiliac joint. This closure stretches the psoas, which both stabilizes the head of the femur in the acetabulum and prepares the psoas to contract in the next phase to propel the leg forward. For this to work, while the psoas of the standing leg is stabilizing the head of the femur, the force must be transmitted from the lateral to the medial arch of the standing foot – which, in turn, requires the medial line of the leg to lengthen (this will also prepare the opposite leg for the next step). To preserve the spring action of the medial arch, the navicular must reach – not collapse – towards the floor as the tibia medially rotates.

Often, restrictions in one leg cause lesions or inhibitions in the opposite hip, and *vice versa*. For example, either the right adductors or the left femoral rotators can limit left lateral movement of the left hip, thus compromising the normal closing and opening of the sacroiliac joint. So, when we watch someone walk, we also want to see how the lesions and inhibitions relate to each other.



Second, as to breathing, the pelvic floor forms the base of support for the action of the respiratory diaphragm. It is not flat, as the word *floor* suggests; instead, it is shaped like a funnel with its lowest point at the anus. The walls of this funnel – the bony pelvis and a thin layer of muscle – were designed to distribute the weight of the superior structures to the obturator area and myofascial structures of the legs. Only part of the pressure is distributed medially – to an area where the pelvic floor is reinforced by the external muscles of the anal sphincter, the perineum, and the pubococcygeus. In a truly horizontal pelvis, the weight of the superior structures would not be diverted adequately to the obturator area and legs, but would fall instead directly over the center of the pelvic floor, which was not designed to directly support the weight of the viscera above.

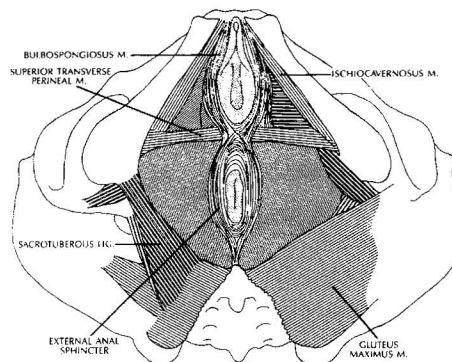
Either hypotonus or hypertonus of the pelvic floor muscles (especially levator ani) can affect the bony pelvis at four points: the sacroiliac joint, the pubic symphysis, the ischial spine, or the coccyx. The two most vulnerable areas in the pelvis are the pubic symphysis and the coccyx. Unbalanced forces can shear the articular surfaces of the symphysis (which is very painful) and deflect the normal kyphosis of the coccyx. A straight sacrum and coccyx indicate pelvic floor hypotonicity, while extreme flexion of the coccyx indicates the opposite. Pelvic floor strain will be transmitted either inferior, through the hip and legs, or superior through the lumbar.

The pelvic floor has both non-striated muscles (e.g., the internal anal sphincter) and striated muscles (e.g., the external anal sphincter and the levator ani).¹⁶ In sympathetic arousal, the striated muscles contract to prepare for fight or flight. Deep abdominal breathing is hindered, but a base of support for thoracic breathing is provided. In contrast, during parasympathetic arousal, the relaxed muscles encourage abdominal breathing. Thus, chronic pelvic floor contraction or laxity indicates not only a structural pattern, but also the habitual orientation of the autonomic nervous system.¹⁷

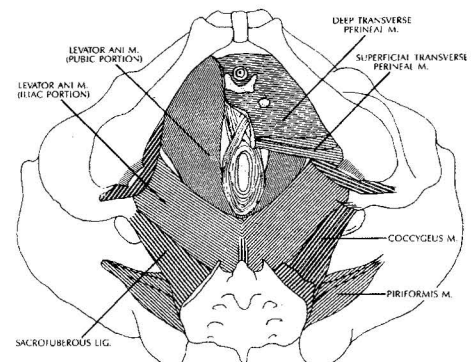
As changes in breathing affect the pelvic floor and changes in the pelvic floor affect breathing, in the first hour we were already working with the pelvic floor, and in the fourth hour we are again working with breathing. Even though, as structural integrators, our focus is not psychology, we influence the psyche and the client's awareness of it through our work on breathing – especially in the pelvic floor.

The *functional goals* of Session 4 are:

- Independence with stability between the legs and the pelvis.
- Coordinated action of the two halves of the pelvis through the sacroiliac joints.
- Function of the distal portion of the psoas in walking.
- Balance between adductors and abductors.
- Improved coordination among the toe, ankle, knee and hip joints.



Inferior View of the Female Pelvic Floor — Superficial Muscles



Inferior View of the Female Pelvic Floor — Deep Muscles

Visceral Manipulation, Jean-Pierre Barral, figures 9-2 (The Superficial muscles of the Pelvic Floor) and 9-1 (The Deep Muscles of the Pelvic Floor), Eastland Press (March 1, 1988), ISBN: 0939616068.

- Clear functional differentiation of the adductors from the hamstrings and quadriceps.
- Competence and coordination of the lower “diaphragms” (plantar, knee and pelvic) so that they all work together and none of them lock.

The main *questions of perception* (space-time relationship) are:

- Does the client perceive the pelvic floor?
- Does the client perceive the intra-abdominal (visceral) space?
- Does the client have the connection of the pelvic and respiratory diaphragms; *i.e.*, that torsions in the legs yield imbalances in the pelvic floor, for which the respiratory diaphragm must compensate?

The main *questions of coordination* (centers of gravity and biomechanics) are:

- Does the client differentiate and balance the function of the adductors (orientation to space) and psoas (orientation to substratum)?
- Does the client differentiate the two potential fixed points of the psoas: proximal, at the lumbodorsal hinge v. distal, at the lesser trochanter?
- Are the four leg hinges (toe, ankle, knee and hip) coordinated?
- Are the plantar and pelvic “diaphragms” coordinated? Does the client have the possibility of the next level of contralaterality: a sense of the need for adequate – but not excessive – tonus in the pelvic floor for transmission of the contralateral impulse through the *functional lumbodorsal hinge*?

SESSION 5

In Session 4, having taken the relationship and coordination of the legs with the pelvis to the next possible level of integration, and thus having begun to enhance pelvic floor function, we indirectly affected the functional lumbodorsal hinge. But this hinge is also influenced by the muscles in and around the pelvis and torso. In the fifth hour, we want to connect the legs directly to the lumbar through the psoas without impediments from the torso and the pelvis itself. If we accomplish this, we will also improve the relationship between the pelvic and respiratory diaphragms.

Classically, the focus of Session 5 is on the

psoas. One key function of the psoas is to stabilize the head of the femur, which is a prerequisite for contralateral motion. Thus, Session 5 is also about enhancing contralaterality.

Some of the many factors that foster contralaterality include:

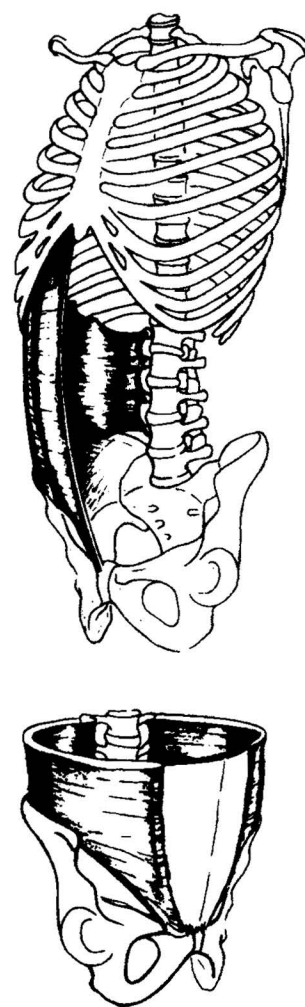
- Independence between the two legs;
- Freedom of the sacrum from the ilia;
- Coordination between transversus abdominis and multifidus;
- Coordination among serratus anterior and the internal and external obliques;
- Coordination between psoas and hamstrings;
- Coordination between psoas and latissimus dorsi;
- Cervical freedom relative to the thorax and abdomen; and
- Full breath capacity.

Independence between the two legs. In walking, one leg must remain stable and firm, while the other moves freely. However, the femur of the standing leg must be free to rotate medially during the unipodal phase of the gait, while the ilium makes a slight anterior tilt. In this phase, the external rotators of the femur and the psoas are front-to-back stabilizers of the pelvis. If the medial rotation of the femur is lost, the psoas is not counter-balancing the obturator internus.

Freedom of the sacrum from the ilia. A free yet functionally stable sacrum is impossible without lumbar lordosis. Lumbar lordosis helps open and close the sacroiliac joints. When we lose the lumbar lordosis, the effect is the same as when, in forward bending, we cease to be in neutral position and the sacrum is in counter-nutation. This prevents Type 1 normal motion of the sacrum (side-bending to one side, with rotation to the opposite side) in walking. The proper function of the sacroiliac joints transmits movement upward and at the same time maintains the resiliency of the pelvic floor. Without functional SI joints, we lose pelvic floor function, thus compromising the balance between the pelvic and respiratory diaphragms and reducing breathing balance and efficiency. The shape of the lumbar vertebrae favors lordosis; however, in today’s western culture, we tend to lose it.

Coordination between transversus abdominis

and multifidus. A functional sacrum needs transversus abdominis and multifidus both to be engaged and working together.¹⁸ The subumbilical transversus and internal oblique allow the lumbar to move freely without interference from the pelvis, while multifidus counters their action to maintain the lumbar curve. This combined action leaves the sacrum relatively free of the iliac bones. Lumbar pain is a sign of poor coordination between the transversus and multifidus. What we usually find is shortened multifidus, with little resiliency and diminished mass, along with disengaged transversus.



A clear picture of how the transversus abdominis relates to the front of the lumbar spine, thus affecting the support for the origin of the crura of the diaphragm and the psoas. *Anatomie Pour Le Mouvement*, Blandine Calais-Germain, Portuguese language version, p. 94, Editora Manole, ISBN 852041138X, 200

Western aesthetic norms emphasize the rectus abdominis. However, exercising the rectus without first engaging the transversus weakens the transversus and thus diminishes the stability and resiliency of the spine. This, in turn, hinders the breathing mechanics. Using rectus abdominis to stabilize the pelvis may be sufficient for static balance, but does not give optimal dynamic balance. Stabilizing the pelvis via the multifidus/transversus system, however, affords dynamic balance.

As we saw in the first hour, because multifidus and transversus are engaged in tonic function, their actions are triggered through proprioception and orientation. Back then, we worked with the multifidus as we taught the client to let the back go towards the table or “to do something” with the back allowing the deepest muscles to contact the table – or, if the person was sitting or standing, to make contact with the wall behind them. This work indirectly affects transversus, as well.

Coordination among serratus anterior and the internal and external obliques. In walking, the subumbilical transversus abdominis should work to stabilize the lumbar and the pelvis in conjunction with the inferior internal oblique (its horizontal part), the contralateral external oblique and the adjacent serratus anterior. For example, the left subumbilical transversus, left internal oblique, right external oblique and right serratus anterior stabilize the left psoas (by containing the whole front of the trunk), thus preparing the next step.

In breathing, ideally, the combined action of the lower transversus abdominis and internal obliques creates a light lift of the pelvic floor, which gives the necessary support for the respiratory diaphragm to function without having to compensate by locking either the crura or the costal arch. Try this in standing: ask a colleague to touch you in your lower belly with the heel of one hand, close to the pubic bone, as if to lift your bladder up. Now, slowly and trusting the support your colleague is giving you, lean forward from your ankles as much as possible and breathe. You will notice that breathing becomes very easy, and that it expands in all directions – with neither the origin of the crura in the lumbar nor the attachment of the diaphragm in the costal arch locked.

However, when the external obliques and rectus abdominis work too much, which

usually coincides with posterior pelvic tilt, the respiratory diaphragm pushes the pelvic floor down too much. This weakens the pelvic floor, with obvious consequences for the support and function of the viscera – especially in women who have given birth. It is also common to see people try to diminish their bellies by contracting the rectus and external obliques before activating the transversus abdominis and internal obliques. This causes the typical lower abdominal belly pouch.

By contrast, in hyperlordosis, which usually coincides with excessive anterior pelvic tilt, we most likely have a short psoas, diaphragm crura that cannot release, or deep erectors that are working too hard.

Coordination between psoas and hamstrings. Stretching the psoas by extension of the leg prepares the psoas for contraction if and when the opposite side hamstrings release. But the hamstrings function only when the adductors, abductors, pelvic floor and rotators are balanced. Do not forget that rotation of the femurs causes imbalances in the pelvic floor, for which the respiratory diaphragm must compensate. Medial rotation of the femur tightens the pelvic floor in front, which correlates with a short iliopsoas. Lateral rotation of the femur tightens the pelvic floor in the back, which correlates with a short psoas. In either case, the lumbar are affected – and as the diaphragm and the crura get support from the lumbar, their function will be affected, as well.

Coordination between psoas and latissimus dorsi. The myofascial connection of the psoas and latissimus dorsi via the lumbar fascia integrates the legs to the arms. In walking, the anterior swing of the arm puts latissimus dorsi in tension, which at its distal portion stabilizes the lumbar against the anticipated contraction of the contralateral psoas long fibers. This action of countertorsion also puts a light stretch on the psoas before contraction, enhancing its contractile capacity. To walk energetically for any length of time, we must walk from our arms¹⁹, as activation of the spiral chain consisting of serratus anterior, homolateral external oblique, and contralateral internal oblique, assisted by latissimus, gives power to the walking. According to studies made by Hubert Godard, 85% of the women who make breast reconstruction using the latissimus ended up developing hip problems, which very clearly shows the importance

of the latissimus for the contralateral movement of the spine and pelvic stabilization.

Cervical freedom relative to the thorax and abdomen. Another good reason for the rectus abdominis not to overpower the other muscles of the abdominal wall is the necessity of the head to orient freely. (Remember that cervical freedom also depends on the neck being independent of the shoulder girdle and arms, among other things.) If the rectus works too much, it pulls the sternum caudad²⁰, which then pulls the cervicals anterior and inferior, over-involving them with the thorax.

Full breath capacity. This depends on many factors, but here we focus on tonus of the abdominal wall. Although proper organization of the viscera is essential for posture and balance, visceral work is easier if the client already has good balance between the transversus abdominis, multifidus and psoas. Lack of tonus in the abdomen, usually caused by an excessive abdominal breathing, can even cause visceral problems. When the myofascial structure is balanced, the viscera are constantly massaged by the breathing. For this reason, systematic visceral work should perhaps be preceded by a basic Rolfing series, as one should not underestimate the impact of abdominal wall tonus, breathing pattern, and myofascial organization on visceral function.

If the abdominal wall is flaccid, the breathing tends to be abdominal. Paradoxically, if the abdominal wall is hypertonic with the thorax projected forward (military posture), the breathing tends also to be abdominal, although shallow. Military posture often compensates for a tendency to collapse. Of course, abdominal breathing is not bad in and of itself. But because abdominal breathing comes with a tendency to collapse or flex the spine, the habitual abdominal breather loses the capacity to extend the spine.

Many Rolfers try to assist exhalation in an inspiration-fixed client by pressing the client's sternum down, instead of by evoking more function in the transversus, internal obliques and multifidus. If we want more parasympathetic activation (evoked with abdominal breathing), we need more sympathetic capacity (evoked with thoracic breathing) and ability to maintain a good sympathetic level when necessary. This requires functional transversus, internal obliques and multifidus. Our original nature

as hunters and gatherers required us to reach, jump, run and fight. All of these activities demand thoracic breathing – and imply a G' in front of G, as we tried to evoke in the first hour.

It is not that we want either thoracic or abdominal breathing: we want full capacity for each. Most of us would benefit from greater amplitude in both directions.²¹ We need the possibility to be in either state, and to oscillate between them without getting caught in either one. Remember that the diaphragm and the crura are two different muscles, and that the mechanics of the breathing changes completely according to whether the fixed point is the costal arch or the central tendon. If the fixed point is the costal arch (as it is in abdominal breathing), the cephalad portion of the crura can descend up to one inch, expanding the abdomen and possibly pulling the lumbar forward. But if the fixed point is the central tendon, stabilized by the transversus abdominis and internal obliques (as it is in thoracic breathing), the dome of the diaphragm follows the chest cephalad.

The *main functional goals* of Session 5 are:

- Improve contralateral movement (instead of focusing so much on psoas function).
- Connect the legs directly to the lumbar.
- Take the coordination of the pelvic floor with the respiratory diaphragm to the next possible level through improved relationship between the legs and the pelvic floor and balance between psoas and iliacus.
- Balance the action of the latissimus dorsi, serratus anterior and rhomboids.
- Evoke function in the *proximal* portion of the psoas in walking. For this, we need the action of the psoas to be stabilized and counterbalanced by a well-coordinated chain consisting of latissimus, serratus anterior and rhomboids.

The *main questions of perception* (space-time relationship) are:

- Does the client have the capacity to distinguish between the abdominal and thoracic cavities?
- Does the client have the capacity to distinguish between the deep and superficial abdominal muscles and the deep and superficial erectors? In other words, can the client maintain a sense of weight and presence in the back as well as the front?

- Has the client achieved the best currently possible balance between *proprioception* (perception of what is inside the body) and *exteroception* (perception of what is outside the body)? To what degree can the client exercise both faculties at the same time?
- Has the client achieved the next possible level of support for both inhalation and exhalation through improved front-to-back and inside-outside balance, as well as awareness of transversus/internal oblique activation?

The *main questions of coordination* (centers of gravity and biomechanics) are:

- Are transversus abdominis and internal obliques balanced with multifidus?
- Are serratus anterior and external obliques balanced with opposite side internal obliques?
- Do the diaphragm, crura and central tendon all work in breathing? If they do, the inhalation will produce a nice expansion of the whole rib cage, without pulls to the inside or conspicuous bulging on the outside.
- Is the psoas contralaterally coordinated with latissimus dorsi?

SESSION 6

Classically, we view Session 6 as the hour in which we address the spine. However, we have been affecting the spine ever since the first hour. There, as we worked to free the thorax from the shoulder girdle and the pelvic girdle from the legs to improve breathing, we were affecting the tonic function of the deep spinal erectors. In Session 2, we continued to improve erector plasticity as we enhanced support for the exhale. In Session 3, we addressed the same themes from the side by evoking front-to-back balance and a sense of dimension in the torso.

In Sessions 4 and 5, we brought the legs into better relationship with the axial complex – first by balancing the legs and the pelvic floor through the midline, and then by connecting the legs directly to the front of the spine. Here, we focused on the lumbodorsal hinge – where the proximal insertion of the psoas meets the central tendon of the diaphragm and the crura – and where walking meets breathing at the front of the spine. The lumbar were stabilized by the transversus abdominis, multifidus and internal obliques, which gave support to the func-

tional lumbodorsal hinge (T-8/T-9) and the rest of the axial system.

Now, in Session 6, we address again the relationship and coordination of the legs with the pelvis – and from there with the spine, going up to the thoraco-cervical junction. We also address the relationship of the legs (through the pelvis) to the visceral space. From a functional perspective, we seek not so much the *alignment* of the blocks (head, thorax, pelvis, legs), but rather:

- Coordination of the pelvic and shoulder girdles, with each working equally in contralateral movement.
- All vertebrae capable of total extension. If even one vertebra does not extend fully, we tend to pull the shoulders back or push the pelvis forward to compensate for the absence of capacity for extension in the spine.

Although Ida Rolf focused on spinal motion in the sagittal plane through the action of the *prevertebral* psoas, we must now acknowledge the torsions and counter torsions that arise from the spine itself. Until very recently, the contralateral motion of the spine was thought to be induced by mechanical push from the bony structures of the legs; but as Serge Gracovetsky has elucidated in *The Spinal Engine*²², the *posterior* myofascial structures of the legs provide the energy for movement that occurs within the myofascial system intrinsic to the thoracolumbar region itself.

In walking, the alternating action of the erector spinae upon the lumbar curve originates spinal contralateral motion according to Lovett's law, which states (as quoted by Gracovetsky), that side-bending a lordotic curve induces an axial torque. Lovett's law thus describes the interplay among the spinal curves, and with it, the emergence of the contralateral motion in the spine.

Functionally, the ideal transition point between the lumbar lordosis and the thoracic kyphosis is around T-8/T-9, which is different from the conventional anatomical transition (L-1/T-12). In terms of functional mechanics, we could say that T-11 and T-12 are really "lumbar." If the functional transition occurs either above or below this point, we lose contralaterality. A transition above T-8/T-9 produces a long or exaggerated lordosis, which dissipates at the level of the abdomen the impulse coming from the legs. This manifests as excessive contralateral motion in the pelvic girdle and

legs relative to that of the shoulder girdle and arms. In contrast, a transition below T-8/T-9 produces relatively flat lumbar and a long or exaggerated kyphosis. This configuration – with its diminished lumbar curve – cannot efficiently transform the impulse from the legs into contralateral movement at the axial level. The shoulder girdle and arms will compensate, with excessive contralateral motion relative to that of the pelvic girdle and legs.

EVOKING THE OPTIMAL POINT OF TRANSITION

For optimal contralateral motion in the spine, the legs must support the manifestation of the T-8/T-9 transition point. In other words, they must be organized in such a way that the impulse to the thoracolumbar myofascial system is both generated and transmitted adequately.

As a precondition, the soleus – the tonic muscle that stabilizes the legs in preparation for any activity – must slide smoothly, without interference from the phasic gastrocnemius. Then, in walking, each calcaneus must have the capacity to *reach* the substratum and *stay there* until the other arrives. Otherwise, the toes can never push off and the *toe lordosis* will not function. This impedes the ability of the other four lordoses to transmit motion up through the spine to the cranium. What's more, without push-off from the toes, the hip extensor system, of which biceps femoris is key, will not be activated.

Biceps femoris is part of a deep myofascial chain, often called the *inner unit*, which includes also the sacrotuberous ligament, transversus abdominis and multifidus. This layer stabilizes the spine and acts on it as follows: as the toes push off, biceps femoris contracts to extend the hip, and in so doing, tenses the sacrotuberous ligament²³, which tugs the sacrum inferior. The resulting stretch upon the deep lumbar fascia activates transversus abdominis to stabilize the lumbar, which allows multifidus to rotate them. This sends an impulse up the entire spine, which responds with contralateral motion according to Lovett's law.

Proper function of this inner unit is essential for core stabilization and contralaterality at the deepest level of the spine. Unless biceps femoris is independent from the medial hamstrings (which attach only to the ischial tuberosity and not to the

sacrotuberous ligament), it cannot put adequate tension on the sacrotuberous ligament. First, we isolate the biceps femoris in the client's perception before strengthening it. Then, we improve its coordination in pushing; and finally, we employ it in a full-body movement, such as reaching into space in a manner that takes advantage of support from the ground.

Proper activation of the biceps femoris should trigger the transversus abdominis. Should this not occur, make sure the ischiococcygeus muscles are not habitually contracted. Contraction of ischiococcygeus triggers contraction of rectus abdominis – which, in turn, inhibits transversus abdominis. The ischiococcygeus causes iliac outflare, while transversus causes inflare. Imbalance between the action of these two muscles on the ilia thus destabilizes the core.

Superficial to the inner unit is a second chain, which extends the spine. Like the inner unit, this chain includes biceps femoris and the sacrotuberous ligament. Here, however, transmission is through the intermuscular lamina of the lumbodorsal fascia to iliocostalis and longissimus. Absent competence in this chain – which, again, depends initially on the proper function of biceps femoris – the erectors will not have the impulse to lift the torso in walking. Notably, a person with a long kyphosis (insufficient impulse to extend the spine) tends to have a posteriorly tilted pelvis, which hinders the action of the biceps femoris in extension.

And superficial to the second chain is a third, comprising the iliotibial tract, gluteus maximus, and the contralateral latissimus dorsi, which promotes contralaterality between the girdles. For this chain to function properly, the iliotibial tract must be independent from vastus lateralis so that it can trigger gluteus maximus to *close* the sacroiliac joint when the leg extends. This action of gluteus maximus transmits tension through the homolateral thoracolumbar fascia to the opposite latissimus dorsi. This manifests as contralateral motion of the shoulder girdle in relation to the pelvic girdle.

Even if the posterior myofascial chains arising from the legs are functioning properly, inhibition in the shoulder girdle relative to the spine can impede spinal motion. As Dr. Rolf observed, the starting point of vertebral fixations is in flexion. Many clients

have flexion fixations, for which they tend to compensate with a forced extension of the thoracic spine. Then, they exacerbate the compensation by forcing their shoulders behind them. The result is flat upper thoracics. In addition to work in the spine itself, these clients must be taught first to rest their shoulders off the spine and towards the substratum. Once the spine is thus freed of the shoulder girdle, the client can learn to allow the spine to go up from the floor without engaging the shoulders. We must distinguish between inability to *go up* and inability to *let go*.

The *functional goals* of Session 6 are:

- Balancing the posterior tonic muscles.
- Coordinating the five lordoses, not so much in terms of alignment as in terms of mutual responsiveness.
- Evoking the next possible level of coordination in the sagittal plane, from the substratum up, *with the focus on extension*. We want to see that the movement through the hinges at the ankle, knee and hip transmits through to the sacrotuberous, sacrococcygeal, sacroiliac and sacrolumbar ligaments. This distributes the motion to the sacrum, lumbar, functional lumbodorsal hinge and thoraco-cervical hinges, and cervicals.
- Promoting adequate function of the inner unit.
- Evoking the manifestation of the functional lumbodorsal hinge at T-8/T-9.

The main *questions of perception* (space-time relationship) are:

- Is the tonic activity of the back muscles responsive to the client's interoception, exteroception and proprioception?
- Is there balance between the orientation towards the substratum and towards space (but especially the connection with the substratum)?
- Is there perception of lift from below to above in walking – the calcaneus giving support with the toes giving momentum?
- Is the client conscious of the front of the spine (possibility for extension)?
- Is the client conscious of the ischial tuberosities and coccyx?

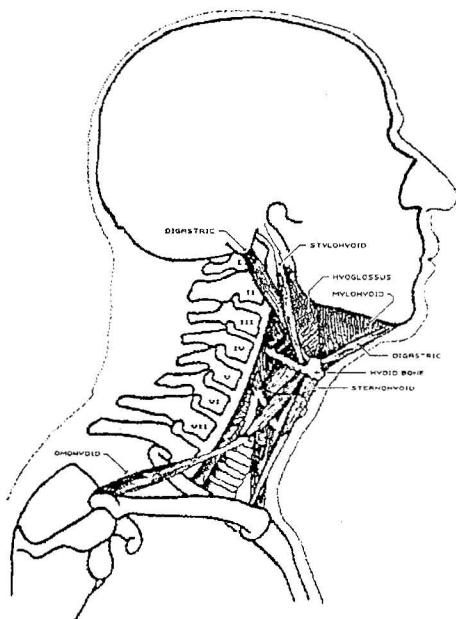
The main *questions of coordination* (centers of gravity and biomechanics) are:

- Can the spine extend in walking?

- In walking, does the calcaneus of the leg that stays behind have the ability to be totally in contact with the substratum as the calcaneus of the leg that is going forward is touching the ground?
- Is the inner unit working, such that we have contralaterality not only in the limbs and girdles, but also in the spine at the deep level of multifidus and spinal ligaments?

SESSION 7

Having focused thus far on support that comes from below (orientation to the substratum), we shall now focus on the support that comes from above (orientation to space) via the organs of the upper pole and the information they gather. In the seventh hour, as we further improve the structural position of the head and neck and the freedom of the axial complex, we have the opportunity to enhance function in the realms of balance, perception and coordination. This follows from the fact that several key components of our orienting system – the suboccipital muscles, the vestibular system, and the eyes and ears – are located in the seventh-hour territory. Functionally, we



The cervicals and associated prevertebral muscles, and their relation to the head and clavicles: *Plastische Anatomie*, S. Mollier, Munich 1938. Dr. Ida P. Rolf said about this drawing, "I think I have never seen a clearer picture of why we must go to the floor of the mouth in order to let the cervical vertebrae back where they belong."

also seek to coordinate the activity of these components with the key component at the opposite pole – the baroreceptors of the feet.

We said earlier that *posture* is the potential for action – which is initially a function of perception. Before I can move, I must first orient to my surroundings – first to gravity, then to space, and finally to particular objects in space. Orientation begins with perception – especially through the inner-ear vestibular system, the eyes and ears and the baroreceptors in the soles of the feet. The orientation in gravity of the head and its organs of perception gives us a sense of the horizontal plane in which action and relationship happen. If the head itself is not well oriented, the person will seek a sense of the horizontal plane through excessive muscular activity of the neck (particularly the suboccipitals) and shoulder girdle – or through intense ocular activity.

Orientation begins with the vestibular system, which organizes the neck and head in gravity. Then, the suboccipitals inform the vestibular system about the relationship of the head with the rest of the body. Imagine a dropped cat finding its feet: first, the head rights itself in gravity. This is the vestibular system working. Only then does the rest of the body follow, placing itself in proper relationship to the head. This is the suboccipitals working. Therefore, properly functioning suboccipitals are essential for

good balance.

Note also that because the dura mater is attached at one point to the rectus capitis posterior minor²⁴, when we do neck work we affect the entire axial system at the level of the dura.

IMPROVING THE FUNCTION OF THE SUBOCCIPITALS

Although the suboccipitals have many times more stretch receptors than any other muscles, their receptors do not activate a stretch reflex in the suboccipitals themselves. Instead, they *inform the tonic function of the rest of the body*.²⁵ Therefore, to recalibrate the tonic function anywhere in the body, the suboccipitals must first be free to work. Various conditions arising from inhibitions correlate with diminished suboccipital function. Some are set forth below. As we alter these conditions – often through work with the client's patterns of perception and coordination – suboccipital function generally improves, and overall tonic function improves with it.

Loss of cervical lordosis. If the cervical lordosis is straightened, the suboccipitals are stretched long and cannot function well. Also, in a person who has lost cervical curve, sternocleidomastoid and rectus abdominis tend to overwork, making it harder for the person to open to the sub-



Aesthetic norm for Thai women. Over time, the neck loses sufficient strength to support itself without the aid of necklaces, and the c

stratum. This, in turn, diminishes the sense of one's own weight – and it is the perception of weight that gives us the first sense of self.

Impairment of the inner ears. In the presence of inner ear difficulties, be they from physiological processes, restrictions of the temporal bones or other causes, C-1 is often found to be restricted.

Hyper-vigilant eyes. A person whose eyes are constantly alert and seemingly over-focused (they seem to *grab* the image instead of receiving it) often has a restricted C-2 that will release if the person puts more visual attention to the periphery.

Paradoxical breathing through the nose. Balanced breathing through the nose could be considered a sign of balance between the sense of smell (which is turned to the *outside*) and of taste (which is turned to the *inside*). In paradoxical breathing through the nose, the person seems to grab the air, rather than receiving it: the nostrils close on the inhale. Paradoxical breathers tend to activate rectus abdominis and external oblique in attempting thoracic breathing, which pulls the thorax down. At that point, the sternocleidomastoids are recruited to assist the scalenes on inhalation. This breathing style tends to straighten the cervicals, which diminishes the function of the suboccipitals.

Hyper-toned sternocleidomastoids. Hypertonus in the superficial sternocleidomastoids interferes with the fine motor activity of the deeper scalenes to turn the head and neck, which is key to free orientation of the head. This is a vicious circle: without proper orientation to space, the head ceases to function as a fixed point from which the scalenes can work. When the scalenes do not work, the SCMs will take over turning the neck via the head – a function for which they were not designed. When the head is oriented directly from the clavicle by the SCMs – instead of through the mediation of the cervicals by the scalenes – the range of motion is reduced and the visual field possibly contracted. This correlates with poor suboccipital function. A client can be taught to release prominent, hypertoned SCM's by evoking the deeper scalene function: the client need only allow the motion to be led by attention to the peripheral visual field, or by auditory stimulus from behind.

Hypertoned hyoid system. Frequently, excess tension in the hyoid system arises, via the linea alba, from excess tension in the pyra-

midal muscles at the pubic bone. This entire restriction pattern hinders the inhale by shortening the whole front line. This restricts the potential position of G' and thus inhibits full orientation to space, which, once again, correlates with poor suboccipital function. If the client is taught to release the front line – which is often as simple as asking the supine client to let the throat fall backward into your hand – suboccipital function will generally improve.

Tension around the mandible. The mandible can be considered part of the axial system, given its attachments to the cranium by the temporalis, the masseter and the pterygoids. But if the mandible is over-involved with the cranium through its muscular attachments, it will restrict the axial system. For a number of mechanical and neurological reasons beyond the scope of this paper, tight jaws occur together with over-focused eyes and tight posterior necks. Training the client to engage peripheral vision or hearing – or to drop the jaw away from the cranium – will often improve suboccipital function.

COMPETENCE OF LONGUS COLLI

To understand how the scalenes work in thoracic breathing, we must observe how their proximal attachment is stabilized so that they can act efficiently on the first two ribs. Unless the scalenes are stabilized, instead of acting on the ribs, they will compress the cervicals and pull the neck into hyperlordosis. Just as good psoas function requires pre-stabilization of the lumbar by the transversus, good scalene function requires pre-stabilization of the cervicals by the longus colli. The longus colli, with its attachments on the anterior aspect of the cervical vertebrae and first three thoracic vertebrae, counteracts the tendency of the scalenes to lordose the cervicals so that the force of the scalenes acts on the ribs. This longus colli action works together with transversus stabilization of the central tendon of the diaphragm for thoracic breathing. What's more, the synergy between longus colli and transversus stabilizes both the cervical and lumbar lordoses in support of many movements. In strong movements, which demand action of the global stabilizers (such as rectus abdominis and SCM), it is of primary importance that the core stabilizers act before the global stabilizers to avoid vertebral compression.

Competent longus colli function also changes the action of the SCM on the head. When the SCM acts bilaterally in the absence of good longus colli function, it flexes the head. However, when working synergistically with longus colli, the SCM will extend the head.

As a consequence of the reciprocal relationship between the lumbar and cervical curves, positional distortion of the cervical curve inhibits transmission of motion cephalad from anywhere else in the body. Therefore, when working with the client in the supine position, it is important to position the head and neck to allow *continuity* in the transmission from the feet to the occiput. Usually this means relaxing the cervical lordosis by supporting the back of the head; but for clients who have lost their cervical lordosis, it means providing support under C-3.

THE SENSES AS MEDIATORS OF TONIC FUNCTION

What is the importance of how we use the senses for tonic function in posture and movements – which, through repetition, become physical “structure”? Our actual perceptive and coordinative structures form what we call the *body schema*. The body schema is physiological; it concerns the “where” issues. The structures of perception and coordination gather proprioceptive and other sensory information, and act more or less automatically, often below our consciousness. They affect the coordination of local and global stabilizing muscles, as well as their firing sequence. Thus, perception affects coordination and vice-versa. By contrast, structures of attributed meanings (our psychology) form what we call the *body image*, which concerns the “what” issues.^{2b} Body image operates cortically, as we filter sensory input based on our personal history, taboos, idealistic views, beliefs and attitudes. Although lesions (such as an impaired ligament) reside in the body schema, inhibitions (such as a belief that one *must* force the shoulders back) reside in the body image. Concentration on body image prevents us from learning new movements because our awareness is more in the “what” than in the “where.” Shaun Gallagher even says that the more we focus, the less we're able to perform. (*Ibid.*) As we've seen, the way we organize our visual perception totally affects our body schema (a “where” question). Thus, when

teaching movement, it is better to focus on spatial orientation, and then make the new possibility of movement as adaptable as possible to the changes in context.

In several scenarios above, we suggested improving the function of the suboccipitals and related structures through the intermediary of perception, on which both body image and body schema depend. Using vision as an example, we see, however, that body image and body schema each depend on a different aspect of vision. *Focal vision* registers in the brain at the cortical level. It allows us to name what we see, and thus informs the body image. *Peripheral vision* registers at the subcortical level. It allows us to perceive spatial relationships, and thus informs the body schema. Curiously, a person with damage to the focal vision area of the cortex can approach an object without the ability to recognize or name it. However, the same person will not collide with the object as long as the function of peripheral vision remains intact.

Loss of good peripheral vision causes overuse of focal vision – as if the person is trying to *grasp* with the eyes. This tends to inhibit the vestibular function of the inner ear. Diminished vestibular function, in turn, tends to cause over-activation and hypertonus in the global stabilizers. The effect is similar to what we see when the local stabilizers of the spine (such as transversus and multifidus) are insufficiently engaged: the global stabilizers (such as rectus abdominis, SCM and erector spinae) are over-recruited. The head is pulled forward and down, which prevents the scalenes from acting properly from a good proximal fixed point. Consequently, the fine movements of the head are lost, and the tremendously important proprioceptive function of the suboccipital muscles is inhibited. With this inhibition of the suboccipitals – which function as a “vestibular” system of the neck²⁷ – the hypertonus of the global stabilizers is reinforced.

Here is an experiment to demonstrate the relationship between perception and tonic function:

Sit on a chair and imagine someone behind you to your right calling to you. Maintain your vision at a close focal length – what you would use to read a book or view your computer screen – and see how far your head turns to the right in response to the call. Return your head to neutral, and this time allow your vision to take in distant

objects and peripheral space. Now observe the range of motion. Try the experiment again – this time observing how your breathing changes as you shift focus. Try the experiment yet again – this time to discover whether attention to what you hear behind you with the “eyes in the back of your head” has the same affect as engaging your peripheral vision.

How is our function enhanced if we now also engage our lordoses and our baroreceptors? In this experiment, let yourself slouch (to diminish the lumbar lordosis) and your feet to disengage from the ground. See how far your head will turn in response to the imaginary stimulus. Now restore the lumbar curve by finding your sitting bones. Notice the enhanced range of motion at the head. Take it a step further by putting your feet firmly on the ground; engaging the baroreceptors should increase the range through which your head can rotate. Finally, engage the contralateral system by pressing the left foot (first the lateral edge, and then the medial edge) into the ground as you turn your head to the right.

Engaging the combination of peripheral vision, sitting bones and feet should take the angle of our visual field in rotation from about 60 degrees to about 225 degrees. All of this with no “fascia mashing” whatsoever!

The *functional goals* of Session 7 are:

- To improve the function of the vestibular system.
- To allow the head to lead the body – through the dynamics of the senses – to organize posture and movements, including breathing and walking.
- To allow the spine to relate to itself without the interferences from either girdle or the diaphragms, thus addressing any unfinished work related to arms/shoulder girdle/neck and legs/pelvic girdle/lumbars relationships, as discussed in connection with the previous sessions.

The main *questions of perception* are:

- Can all the senses turn to both the outside and the inside (intrasensoriality)?
- Can the senses balance and complement each other (intersensoriality: one sense “helping” and “being helped” by the others)?

- Is there balance between peripheral and focal vision?
- Is the cranium differentiated from the mandible?
- Is there a sense of the sagittal line through the head?

The main *questions of coordination* are:

- Is the longus colli acting to support the cervical lordosis?
- Is the head free to move in all directions, and yet serve as a stable fixed point in space?
- Is nasal breathing balanced between the senses of smell and taste?

SESSIONS 8 AND 9

“It is not possible to solve a problem with the same questions that created it.” Albert Einstein

“Principles without intuitions are empty. Intuitions without principles are blind.”

Immanuel Kant

Ida Rolf’s pedagogical focus seems to have been integration of the human body in *standing*, and perhaps she developed the recipe accordingly. Of course, this is not to say that her thinking was limited in the same manner; she is reported to have claimed, “Anybody can take a body apart... but only a few can put it together!” “Putting together” is what Sessions 8, 9 and 10 should be about. When Jeff Maitland, Jan Sultan and Michael Salveson developed and articulated the Principles of Rolfing intervention (adaptability, support, palintonicity, closure, – and the meta-principle, holism) they substantially advanced our understanding of the recipe – particularly of the last three sessions. However, even with the benefit of the Principles, the teaching and execution of these sessions is often muddled. I believe the difficulty in grasping the last three sessions is in the *initial condition* of where, as structuralists, we’ve been focusing our thinking. This is especially true in respect to what we envision that we are trying to accomplish.

WHAT ARE WE TRYING TO ACCOMPLISH?

Why do we want to treat people with Dr. Rolf’s method? Is it just for them to be better *aligned* in gravity, or is it for them to *relate better to gravity* so that they can, in turn, interact with others and the environment

in more positive and constructive ways – in short, so that they can lead better lives? I suspect that most of us, at heart, prefer the latter. Surely, living better means enjoying to its fullest our human condition, including the body and its movement potential, as well as our intelligence – both emotional and rational. Freed from dysfunctional restrictions we can, both literally and metaphorically, walk through life with more ease and grace.

But this takes more than the release of tissue fixations. It also requires release of fixations in the structures of perception, coordination, meaning (psychological), cosmology and spirit. To the degree we intervene in perception and coordination, we can indeed touch restrictions in structures beyond the physical and thereby enhance the client's potential to *be* more fully a human being.

In the structuralist mindset, we often misperceive problems of perception or coordination in terms of biomechanics, and therefore pay insufficient attention to the client's subjective experience of movement. I propose that we look at Sessions 8, 9 and 10 in terms of the dynamic, rather than the static, with respect to the interaction and exchange with others and the environment (including gravity).

THE IMPORTANCE OF THE HORIZONTAL PLANE

Classically, Dr. Rolf's model is an orthogonal one, emphasizing the sagittal plane. Perhaps the model – and therefore, the recipe – pays insufficient attention the horizontal plane. If so, this would be a serious gap in functional terms. First, spinal torsions and counter-torsions at the deep ligamentous level occur in the horizontal plane. What may be more important, the horizontal plane is the one in which human action and relationships happen. For example, we can best offer or receive from another person if the eyes and hands of both persons are on the same horizontal level. And, as discussed above, the orientation of the head in space depends on the dynamics of G' , which influences the person's relationships with others and things in the world.

WHAT IS DYNAMIC SUPPORT?

Dr. Rolf's book, *Rolfing: The Integration of The Human Structure*, shows at Illustration 2-5 two dummies made of blocks – one of

them disorganized and collapsed and the other one well-aligned, with support from the sky hook. According to the caption, somehow the body seems to have an imaginary sky hook lifting it heavenward. Is the flesh-and-blood reality of the sky hook only the co-operating balances of myofascial spans (static) – or has it something to do with orientation in and movement into space (dynamic)? As structuralists, we have focused on static support and neglected dynamic support. *Dynamic* or *active* support comes not only from the substratum, but also from the head and hands as they orient us in space.

It helps to borrow the concepts of *feedback* and *feedforward* as used in the theory of *action systems*.²⁸ In *feedback*, movement is regulated based on the perceived *effects* that it exerts on the body; and the movement has to be slow enough for its effects to be perceived in time for the perception to regulate the movement. In *feedforward*, the movement is too quick to be regulated by perceived effect, as it may be finished before it comes into conscious awareness.

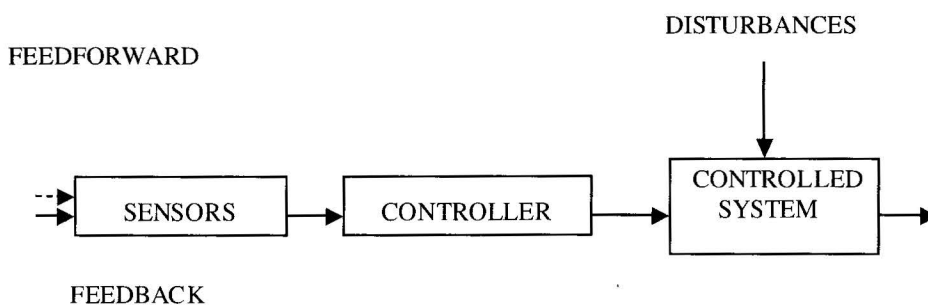
When I am on your table and you ask for a movement, my system perceives, consciously or unconsciously, the effects of your exquisite and evocative touch as it educates my perception and coordination. I can use this information to fine-tune my own movement because I have time to perceive its effect and correct it accordingly. But then I return to my work on the flying trapeze at *Cirque de Soleil*. As I reach for the trapeze handle coming my way, I throw my arm in a spastic movement and realize too late that I misjudged! Unfortunately, the feedback came too late for me to correct before the handle is gone...

Just because I can perform a movement in slow motion does not mean that I can perform it quickly. While in the first seven sessions we worked with the feedback function, now at the last three sessions we can work with the feed forward function through perception, coordination and meaning to better integrate the sky hook in the *dynamic* to allow acceleration forward into space.

DYNAMIC SUPPORT FROM THE HEAD AND HANDS

We have observed that the orientation of the head towards something or someone is related to the function of the upper limbs (especially the hands), the center of gravity for which is G' . To act in our environment, we need direction; that is to say, an action takes place along a particular vector. The vector is determined when our eyes or ears or sense of touch identifies the object of desire or necessity. But to actually apprehend the object, as opposed to merely observing it, we must *accelerate* along the vector; and this requires the impetus of G' . If we act only from G , we cannot go toward the object. What's more, without good G' function, our arms cannot reach and our hands cannot grasp.

Acceleration is different from *velocity*. In one sense, *acceleration* can be seen as the equivalent to space orientation – or perception. If I say, "Movement is the capacity to accelerate through space and time," I mean that the *direction* of the movement is a vector. It has a particular course, or orientation in space. And to speak about orientation in space is to speak about perception. Thus, if we lose the hands, we lose acceleration. In other words, if I lose my hands, then I also



Feedforward and feedback control schema. *Emergent Forms*, Eugene C. Goldfield, p. 10, Figure 1.2. In feedforward control (open loop), the regulation is based on sensed disturbances. In feedback control (closed loop), the regulation is based on the sensed effects that the disturbances have on the regulated variables. Oxford University Press, 1995. ISBN: 0195065891

lose (or do not have) the capacity to accelerate through space and time. It follows that if I do not have my hands, my relationships to others and things are hindered.

Often the client who lacks presence in the hands has difficulties around relationships. In choosing an intervention, we must first identify the source of the difficulty. Is it that the perceptive apparatus fails to notice objective reality sufficiently well to identify clear vectors? Is it that the impetus of G' is thwarted by excessive connection to the substrate? Or is it that the person suffers from ambivalence such that the back will not release to allow motion toward the goal, paralyzing the person in a *push-me-pull-you* dilemma? Whatever the case, the organization of the thorax mirrors the quality of the person's relationships.

G' is not *more* important than G, but it is *as* important. Under conventional theory, bipedal locomotion liberated the hands for development. However, Phillip Tobias suggests that in fact we became bipeds because our upper limbs had already become more functional.²⁹ This makes more sense: the development of the hands during the quadrupedal phase – allowing us to grasp with the forelimbs instead of the jaw – gave not only the impetus but also the balance (through G') for animals to go bipedal. Just imagine a cat standing on its hind legs and using its forepaws to capture a bird.

Or, imagine our arboreal ancestors brachiating through the treetops. This form of quadrupedal locomotion required a strong and sophisticated upper girdle from the paw through the scapula. But it also required keen hand-to-eye coordination. The arm that the chimps brought down from the trees had already secured a major presence in the brain. Both structurally and neurologically, the brachiating arm had the potential to evolve into an organ capable of helping only two legs balance the body.³⁰

Although the classical Rolfing approach centers on the pelvis, the organization and function of G' are indispensable for the verticality of the spine. In developmental terms, an infant begins to organize vertically by finding dynamic support through the senses, first in relation to the mother and then in relation to the environment. Thus, it is the organization of G' that initially determines the position of G; and the organization of the pelvis in gravity is influenced by the person's earliest developmental issues.

SEEING WITH NEW EYES

Right movement cannot be achieved analytically: to perform a movement correctly is never about doing the right thing, but about getting the right information. Right information yields the full spectrum of sensation, organization and timing, which allows the emergence of right movement. "In efficient movement there is no 'body,' but only the imaginary process of the anticipated vectorization of space and my body within it." (Hubert Godard)

At this point – looking at the person with new eyes while respecting the person's way of relating to the world – observe which areas of the body behave differently than the rest. Often, there is a division between the behavior (quality of movement) of the superior and inferior parts of the body. It is like a *mechanical* schizophrenia. But a *mechanical* schizophrenia means especially a *perceptive* schizophrenia. All the accidents, physical and emotional, arise from the same issue: a flaw or break in the perception creates a vector that is not efficient for the support of the mechanical forces in movement.

When our clients complain that our instructions are "too much to think about" – or when they are doing movement as opposed to being movement – we, as practitioners, should ask ourselves what information (sensation, organization or timing) the client is missing. This question harkens back to Session 1, when we asked whether the client needed to open perception towards either space or support, and whether the client had the potential to receive.

But how can we see the client with new eyes if we ourselves are not open to receive him? At this stage, the main issue is not in the client, but in the practitioner. We have already seen that focal vision goes to the cortex (where it is associated with words), while peripheral vision goes to the sub-cortex and spatial perception. Although there are bridges between the cortical and sub-cortical analyzers, they can disconnect. The same is true for the other senses. For example, in what psychoanalysts call fluctuating listening, the therapist allows the words to come in, but refrains from judging or interpreting – instead allowing the subcortical analyzers to work. As Rolfers, we should similarly refrain from judging while observing or touching the client and let the subcortical (spatial) analyzers to work. Eventually, we "see" something in

the client as we ourselves make a new association.

To allow the new associations, look at the person with two eyes: one that has words, and the other that does not. If you look only with the eye that has words, you will see only what you already know. Listen to the person with two ears: the one that has words and the one that does not. And most of all, touch the person in three dimensions: as Godard says, the Rolfing quality of touch is so important because it gives the client permission to create or invent a state or a place further in the unfolding of the client's potential. The big question is how to be in a receptive state and at the same time think cortically. How to balance both? This is the *central question* in meditation and martial arts – and for the psychoanalyst and the Rolfers as well.

Often, when either the practitioner or the client tries to do something, it does not work because we are in a state in which the free symbolic association cannot work. We need to be capable of making new associations, and then of concretizing them in language. When the client is experimenting with a movement that "does not work," the practitioner should, as Godard says, "give benediction" to the movement as it is and then *return to the initial condition* of the anticipatory postural activity (APA). It is *there* that the person can change the potential for the movement by changing perception. Again and again!

THE PRINCIPLES IN FUNCTIONAL TERMS

It is often said that the eighth hour is structural, and the ninth functional. But it is also said that Dr. Rolf herself worked more functionally in all of the last three sessions; and that when she choose to work more structurally, she went to the joints at the ligamentous level in the feet and ankles, the fascia lata, the hips, the viscera and the atlantooccipital joint. As I was told, practitioners were originally taught to strategize the eighth hour as a "lower" or an "upper," and do "the other one" in the ninth. This approach allowed the opportunity to work those elements that still needed to integrate with the others. However, to this day, some structural integrators believe that the eighth session is the last opportunity to work on lesions, while the ninth session should be more dynamic and work the movements *through the joints* to encourage mobility.

The Principles have made possible more intelligent strategizing of Sessions 8, 9 and 10:

Adaptability: What in the structure is still not adapted for the system to maintain the changes that have been introduced? Which joints or tissues still need some work? (As Jeff Maitland has warned, the danger in this approach is to do *more of the same* – focusing on the details while missing the whole.)

Support: Where has the support principle not been adequately addressed? We should consider not only the support from the substratum, but also the dynamic support that comes from the orientation to space. Traditionally, work to improve support could address a detail (like a joint) or a whole system (like the feet, legs, and pelvic girdle up to the lumbodorsal hinge; or the hands, arms, and shoulder girdle down to the lumbodorsal hinge). When looking with *functional eyes*, we can see the same things we have always seen, but should consider in addition the perception and coordination and aim for the *functional* lumbodorsal hinge. The classic tracking techniques become even more powerful when applied in this context.

Palintonicity: This concerns the dynamics of the lines and geometric planes in the physical structure – *the line* being the clearest referent. Palintonicity can be understood in terms of congruence: we want the best possible relationship of each part with the line; or the best possible relationship between each of the five structural elements (pelvic girdle, shoulder girdle, axial, core and sleeve), on the one hand, and the line, on the other hand. Here again, the danger is to focus in the parts and miss the whole.³¹

Closure: At this point, closure comes to the fore.³² From now on, the need for closure should inform the work so that the client can own the interventions as much as possible and take them into daily life. Thus, we should not open new questions that cannot be integrated with the previous work. The Closure Principle also concerns the nature of the therapeutic relationship: we should not nourish dependence, but rather empower our clients to take care of themselves in healthy and constructive ways while respecting their unique ways of being in the world.³³

The *functional goals* of Sessions 8 and 9 are:

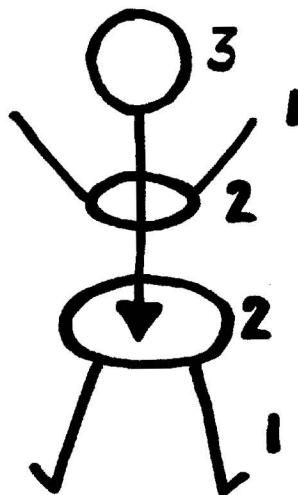
- To work toward full capacity of the spine in flexion and extension in relation to

movements of the arms and legs. Psychological issues, such as residual startle reflex, can contribute to difficulties in the full movement of the spine.

- To improve coordination from the leg to the arm and from the arm to the leg.
- To have the best possible support from the legs for the work of the arms (such as reaching or pushing); and the best possible balance from the arms to orient the work of the legs (such as walking or running).
- To see the axial skeleton providing the best possible support and stability to the girdles and limbs, so that the flow of movement from the bottom to the top and the top to the bottom appears to be uninterrupted. Maybe this is what we can call the *dynamic of the line*, or *grace*.
- Total capacity of breathing – now as a link between us and the environment in the feed-forward mode.
- Optimal contralaterality at all three levels (limbs, girdles and spine).³⁴
- Limbs that show capacity for total expression of reaching, pushing and pulling.

The main *questions of perception* (space-time relationship) are:

- Does the person exhibit total capacity of breathing (which depends on the anticipatory postural activity)?
- Does the person exhibit the capacity for both abdominal and thoracic breathing (and thus for balance in the autonomic nervous system)?



The "three levels" model, showing the three different and growing levels of contralaterality.

- Does the person exhibit consciousness (not just *awareness*) of the anticipatory postural activity through the resolution of the inhibitions in perception?
- Does the person exhibit the capacity to notice the need to change the context (the chair, the table, the job, the home situation, relationships with others, etc.)?

The main *goals for integration* are:

- New meanings and associations for gestures – including breathing and walking.
- Integration in gravity, body use and social context.
- Expression in the social context.
- Development of a customized sequence for self-education, pertinent to the person's daily life.

SESSION 10

"Wholeness is not so much about perfection as it is about conclusion."

Carl Gustav Jung

"We will not cease to explore, and the end of all our exploring will be to arrive where we started and know the place for the first time."

T.S. Eliot

At this point, even before the body / movement reading, the practitioner should ask what needs to happen at the emotional or energetic level for the best possible closure. How can the client own the process and further its gains and transformations? How can the client sense a differentiation from the practitioner, so that both can say goodbye with clarity and elegance – knowing that at some future time they can work together again, not to repeat what was done before, but to evolve it further as ripening over time makes possible other levels of integration?

Some questions for reflection are:

- What does the client need for closure?
- What does the client/practitioner relationship need for closure?
- What are the limitations of the client that the practitioner must perceive and accept?
- What are the practitioner's own limitations, both professionally and personally, that the practitioner must perceive and accept?
- What are the limitations of the client's process that the client must perceive and

accept?

Only after having reflected on these questions should the practitioner undertake the body/movement reading.

The *functional goals* for Session 10 are:

- To optimize the dynamic line.
- To optimize breathing.
- To optimize contralateral motion.

The main *questions of perception* (space-time relationship) are:

- Does the person have full capacity for both abdominal and thoracic breathing, showing balance in the autonomic nervous system and appropriate anticipatory postural activity?
- Is the person *conscious* (not just *aware*) of the anticipatory postural activity through the resolution of the inhibitions in perception?
- Does the person have the ability to recognize the need to change the context – be it a chair, a table, the job, the home life, relationships with others, etc.?

The main *goals of integration* are:

- New meanings and associations for gestures – including breathing and walking.
- Integration in gravity, body use and social context.
- Expression in the social context.
- Development of a customized sequence for self-education, pertinent to the person's daily life.

CLOSING WORDS

"Hang together at this point in your thinking; don't try improvements just now. Otherwise you go off on tangents. There are improvements possible, I'm sure, but wait a little."

Ida P. Rolf³⁵

Historically, we have been a structuralist community. Our language of function is neither sufficiently well-developed nor widely adopted. The limitations imposed by our current technical language and state of knowledge tend us toward biomechanical thinking, causing us to lose the opportunity to educate clients about how to live in terms of movement instead of anatomy.

I believe we have waited long enough – and, hopefully, have matured enough – that

now is the time to look at the recipe with new eyes, to refresh and invigorate it. We should treat people not only for them to look better or feel better, but also to take fuller advantage of the human condition and express themselves better through the body and its inherent movement potential. To quote Til Luchau, "Each of us chose a professional path because of a vision compelling enough to get us to do all it took to get here. Take a moment to remember this original vision. What attracted you to this work? What experiences along the way have kindled your excitement and moved you? What do you most enjoy about it? These are touchstones – things to stay connected to and take even further."

For me, working to actualize the potential of life is the dream and the vision. To bring more vitality to life, we must integrate structure and function. This is integration. It empowers both the practitioner and the client. □

END NOTES

1. Berdiaev, N., *Slavery and Freedom*, French-New York, 1944. Nicolas Berdiaev (1874-1948) was a Russian philosopher.

2. Joseph Campbell, American mythologist, professor and writer, said, "The perfection of the human being is his very imperfection." According to Lael Keen, American-Brazilian Rolfer, "Perfection is boring."

3. Lucia Merlino, Brazilian Rolfer and editor for *Rolfing Brasil* says "Rolf Movement basically teaches you to breath and walk."

4. Tonic muscles govern our posture. Rich in spindles, they maintain tonus even as we sleep. They consume oxygen. Phasic muscles execute our movements. With fewer spindles, they rest when we rest. They consume glucose. In a way, tonic muscles run the show because they manifest the psychology of the person (or the memory of the body in gravity). Working on phasic muscles does not release tonic muscles. The only way to communicate with tonic muscles is through perception, either working with the sensation of weight or giving them a direction (towards the table or the wall, for example) with the gamma touch.

Because there are no "pure" tonic or phasic muscles, we should treat each muscle as a couple: besides releasing lesions, we should help someone who tends to collapse to find "directions," and someone who tends to rigidity to find support and let go into it.

Very interesting are the studies of Judith S. Kestenberg, M.D. and Arnhilt Buelte on infant development as expressed through bodily movement; holding patterns; and the mutual holding between mother and infant, and how these interactions shape both the body and the psychology.

5. Local muscles are usually smaller, deeper and closer to the joints – often attaching directly to the joint capsules – whose primary role is to stabilize the joints. Global muscles are usually larger and more superficial; their primary role is to execute large motions, with the local muscles acting as stabilizers. Bergmark, A., "Stability of the Lumbar Spine: A Study in Mechanical Engineering." *Acta Orthopaedica Scandinavica*, 230 (suppl.): pp. 20-24.

6. The author would add the social aspect to the Circle of Being, as the human is *par excellence* a social being. Most Rolfers notice changes in the way people relate to each other after receiving Rolfing. Furthermore, the author prefers to refer to the Circle of Being as the Hologram of Being – as each of its aspects is implicit all the others.

7. Many of us have seen the most beautiful movie "The Muse Within," in which Jon Roar Bjorkwold (professor of musicology at Göteborg University) and John Collins (Music philosopher in Ghana) are interviewed. While the movie successfully evokes nostalgia for the condition (with its beautiful movement qualities) of the human beings shown there, it also says, "It is like this that 'it' should be." In my opinion, this could be another kind of violence to the person.

8. Thiago de Mello, Brazilian poet and translator of humanistic vocation, was born in 1926. His most polemic work is *The Statutes of the Man*, published in many languages. Thiago de Mello translated into Portuguese works of T.S. Eliot and Pablo Neruda, among others.

9. Vivian Jaye, American Rolfer, who wrote a big and important chapter in the history of Rolf Movement, says: "The way you walk across the room is the way you walk through life."

10. As a doula, the author has attended more than 1,200 births, always in awe of the babies' first inhalation and all that it represents.

11. Newton A., "Breathing in the Gravity Field," *Rolf Lines*, Fall 1997, pp. 27-33; "New Conceptions of Breathing Anatomy and Biomechanics," *Rolf Lines*, Winter 1998, pp. 29-34; and "Posture and Gravity," *Rolf Lines*, April 1998, pp. 35-38.

12. While Fryette's laws talk about individual vertebrae, Lovett's (1903) law talks about the functioning of the whole spine: when you bend a lordotic curvature to either side you induce an axial torque. Translating this to the spine: the rod is the spine, the lumbar lordosis and the thoracic kyphosis are where the rod is bent, and the movement that comes through the erectors is the "trying to side-bend the rod." Read more about this in the *Fourth Interdisciplinary World Congress on "Low Back and Pelvic Pain Annals: Analysis and Interpretation of Gait in Relation to Lumbo-Pelvic Function,"* by S.A. Gracovetsky, Ph.D., Concordia University, Montreal, Canada. See also: J.P. van Wingerden, A. Vleeming, G.J. Kleinrensink, R. Stoeckart, "The Role of the Hamstrings in Pelvic and Spinal Function," in *Movement, Stability & Low Back Pain*, edited by Andry Vleeming, Vert Mooney, Thomas Dorman, Chris Snijders, Rob Stoeckart. Churchill Livingstone, New York, 1997.
13. According to Godard, the nerve of the vestibular system is the first to myelinate.
14. This is a reference to Godard's concept of the "five lordoses": the root of the toes, the plantar curvature, the back of the knees, the lumbar and the cervical lordoses. Restrictions in any of them will cause compensations in all the others. For example, a non-functional toe lordosis is frequently accompanied by non-functional psoas (usually the person walks from the quadriceps).
15. G' is the most exact and efficient part of the body to track something or someone in movement. Remember that the heart is there, and that the magnetic field of the heart is five thousand times stronger than that of the brain. The retina has the second strongest magnetic field in the body.
16. The connection between the fascia of the non-striated and striated muscles mirrors the connection between the central and autonomic branches of the nervous system. Associating Freud's ideas of the id (the unconscious) with the non-striated muscles and autonomic nervous system, and the striated muscles with the ego (the conscious) and the central nervous system, we see that these muscles are subject to control from both the conscious and the unconscious. Rolfer Hilde Feldweg (1950-1989) wrote a very interesting paper on the subject, published in *Rolf Lines*, March/April 1990.
17. Keleman, S., *Emotional Anatomy – The Structure of Experience*.
18. For more details, consult Diane Lee, "The Pelvic Girdle – An Approach to the Examination and Treatment of the Lumbo-Pelvic-Hip Region."
19. Adjo Zorn, Ph.D., and Monica Caspari, "Why Do We Hold Up The Arms While Running?" *Structural Integration*, Fall/December 2003, Vol. 31, No. 4, pp. 4-10.
20. In this regard, note that the transversus thoracis is like a slip of the rectus abdominis going deep to the ribs.
21. For a very interesting article read "Stress-Bewältigung und Rolfing" (The Management of Stress and Rolfing), by Adjo Zorn, Certified Advanced Rolfer, at <http://www.rolfingb.de/stress.htm>; also published in *Rolfing Brasil*, the Brazilian Rolfing Magazine, March and July 2001, under the title "Vencendo o Estresse-Rolfing" (SNA, Estresse, Equilíbrio e Rolfing).
22. Gracovetsky, S., *The Spinal Engine*, Springer-Verlag, New York, 1998.
23. In fact, recent dissection research has shown that in many instances, slips of biceps femoris attach directly to the sacrotuberous ligament, as well as to the ischial tuberosity. See, J.P. van Wingerden, A. Vleeming, G.J. Kleinrensink, R. Stoeckart, "The Role of the Hamstrings in Pelvic and Spinal Function," in *Movement, Stability & Low Back Pain*, edited by Andry Vleeming, Vert Mooney, Thomas Dorman, Chris Snijders, Rob Stoeckart. Churchill Livingstone, New York, 1997.
24. In a series of dissections, James A. Lipton, D.O., F.A.A.O. (U.S. Navy), found a fibrous band in the suboccipital space connecting the rectus capitus posterior minor and the posterior aspect of the dura mater. Information courtesy of Harold I. Magoun Jr., D.O., F.A.A.O., F.C.A., D.O. Ed. (Hon.), Denver, CO.
25. Abrahams, V. C., "Neck Muscle Proprioception and Motor Control," *Proprioception, Posture and Emotion*, Garlick, D., ed., University of New South Wales, 1981.
26. Welton, D. ed., *Body Image and Body Schema in Body and Flesh: A Philosophical Reader*. Blackwell Publishers, Ltd., 1998, chapter 7.
27. Gallagher, S. and Cole, J., *Body and Flesh: A Philosophical Reader*. Blackwell Publishers, 1998.
28. The theory of Action Systems was first introduced by Edward S. Reed (1982) in "An Outline of a Theory of Action Systems," *Journal of Motor Behavior*, 1982, Vol. 14, No. 2, pp. 98-134. In *Emergent Forms: Origins and Early Development of Human Action and Perception*, Eugene C. Goldfield presents and modifies the taxonomy of action systems first introduced by Reed.
29. Tobias, P., *Man, the Tottering Biped: The Evolution of His Posture, Poise and Skill*, University of New South Wales, Kensington, 1982. See also, Aline Newton's review of this book in *Structural Integration*, February 2003.
30. Wilson, R., *The Hand: How its Use Shapes the Brain, Language and Human Culture*, Vintage Books, New York 1999.
31. At a Rolf Movement certification training in Florianopolis, Brazil, Koh Brodie, Tsuguo Hirata and I came up with a new saying: "Kill the ants if you like, but don't forget the elephant!"
32. Adjo Zorn and Monica Caspari, "Beyond the Recipe – Process-Oriented Rolfing®," *Structural Integration*, Summer 2001, Vol. 29, No. 3, pp. 9-13.
33. Interestingly, different cultures place the vanishing point – the perspective point in the depth of the picture towards which all the lines that originated in the first plane seem to converge – at different locations in their art: while the Occident usually places the vanishing point in front of the viewer, in an accelerated perspective, the Orient generally puts it behind, in a slowed-down perspective. The African culture works with a flat perspective. These differences in perspective reflect different ways of being in the world.
34. Hubert Godard's Three Elements model for looking at the person in movement is very valuable here. This model speaks to the three progressively more refined levels of contralaterality: 1) at the limbs; 2) at the girdles; and 3) in the axial complex. It consists of looking at the person while having this model in mind and asking which of the three elements is out of sync with the rest.
35. *Ida Rolf Talks about Rolfing and Physical Reality*, ed. Feitis, R., The Rolf Institute, 1978, p. 170.





An Open Universe

An In-depth Look at Ida Rolf's Structural Integration

By David Davis

Structural Integration (SI) is the culmination of a body of work developed by Ida Pauline Rolf — a true Renaissance woman who changed the field of bodywork and the way we as practitioners and clients perceive ourselves, perhaps, forever. Rolf received a Ph.D. in biochemistry from Columbia University in 1920, was a research associate in organic chemistry at the Rockefeller Institute for 12 years, and studied mathematics and atomic physics at Swiss Technical University in Zurich, Switzerland, augmented with studies in homeopathy, osteopathy, chiropractic, philosophy, yoga, and transformational mysticism.

Rolf looked at the human condition as it related to the environment and chose to look into the relationship of parts to the whole. Rather than working on symptoms, she evolved a series and sequence of manipulations to change how structure relates to the planet. The gravity of this decision led to developing a sequence of manipulative sessions known as the 10-series. When she first began developing her approach, osteopaths and chiropractors were among the few medical professionals who believed the body could improve with fascial manipulation. The model of osteopathy, that structure creates function, was a key in the development of her work. She also explored man's relationship to gravity as pivotal to structural and functional patterns, problems, and prospects. The insight that connective tissue holds the body in space and that bones act as spacers brought new relationships to light. And Rolf's work is all about relationships: soft tissue to hard, matter to energy, structure to function, and connective tissue to health and well-being.

This series of 10 sessions, which cohered in the mid-'40s, organizes the body in the field of gravity — at the time, a new territory for bodyworkers. Fascia, the collagenous protein matrix of connective tissue, is the medium of manipulation in this sequence and series. SI is a process of organization, bringing order to the connective tissue through structural alignment with Earth's gravitational field. Establishing this proper relationship, the energy of the client is reinforced by this field. Gravity becomes *the* therapist. Being cognizant of our relationship to this natural force opens our senses and expands awareness of how we move in, and occupy, space. Order is maintained by

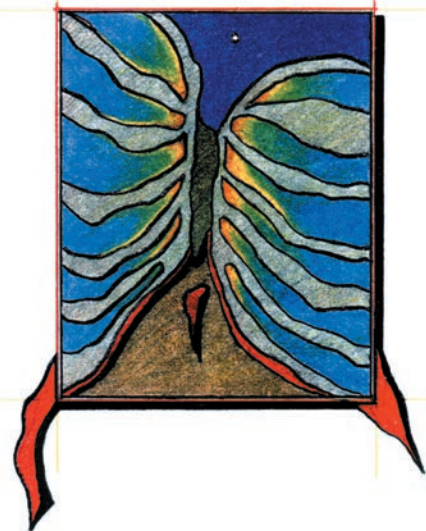
awareness. Appropriate movement in spatial freedom leads us to new patterns of understanding in stillness and motion. Understanding old and new patterns is vital to reaching a more harmonious sense of well-being. Rolf regarded her work as giving new options to perception, proprioception, movement, and being.

In Alignment with Gravity

Rolf's recipe is a contextual package relating the intention and principles of SI to the series. The beauty of the SI vision is a direct, incisive system, organizing the body for improved function. The primacy of gravity plays an essential role in how we age, collapse, and compensate the hologram of structure from the macro to the cellular level. We grow up under the electromagnetic pressure of the planet. All living things and beings are subject to magnetic compression and its exaggerating influence upon structural patterns. But only humans have the potential to evolve in vertical intention. We receive support by organizing around a central vertical axis. Understanding this line of intention is central to Rolf's work.

The line refers to the gravitational influence moving from above one's head, down beyond one's feet, to the center of Earth. It does not stop at one's head or at the feet, but implies larger spatial relationships and polarized energies at the ends of the spine. From the ground up, the line passes through the floor of the pelvis, rising anterior to the spine, up through major body segments, passing through bone only at the crown of the head. The line is a profound construct for observing bodies in stillness and motion, living where the medial/sagittal and lateral/coronal planes meet.

Alignment in the gravitational field integrates the human structure with the planet by being upright at a right angle to Earth. Earth is the horizontal plane, and we can unify in the vertical. "Verticality" is its own virtue in balance of form. The segmented nature of the human body and its joint system renders us vulnerable to falling out of balance. Joints need to work like horizontal surfaces, but none of them are horizontal or flat. The narrow aperture of the ankle acts like a ball bearing distributing weight laterally, medially, anteriorly, or posteriorly. That base of support may be quite different relative to the structure above and from one leg to the other,



The body's transformation begins with opening vital capacity.

Original art interpretations
of the 10-series by Christo Carson.



Grounding the spine with a coherent base of support.

depending on rotations and weight distribution right to left. Imbalance in the base strains segments above, requiring fibrous knitting to splint, hold, and stabilize unstable relationships. Tilting or tipping of joint surfaces accompanies rotation at the joint and counter-rotation in the joint above and below. Rotation and strain are reflected throughout the joint system. Holding transmits up and around the spine, transferring into the ribs and myofascia, stabilizing the pattern through the thorax up into the cervical spine and cranium.

Soft tissue stabilizes and moves the skeletal framework in space. We are a sea of connective tissues performing critical functions. Rolf called this the “organ of form,” the *prima materia* from embryological formation through life, cohering fluid, matter, and energy in a three-dimensional continuum. Fascia envelopes each cell and fibril, organizing into larger functional structures, including blood, bone, organs, muscle, tendons, and tensional layers or planes. Myofascial continuity does not begin or end with insertions, origins, or bones. Fascia organizes in directional layers following tension, compression, and structural, functional, and compensational demands from deeper bony and joint layers out and from superficial to intrinsic, myofascially. Adhesion, gluing, and lamination in myofascial layers limits motion, function, mobility, and motility by desiccating tissues and limiting blood, fluids, and vital energy to and through constrained areas. Everything slows in the fibrous knitting repair of adhesions, pulling on adjacent structures, literally reaching out to secure and stabilize by spreading regionally toward bony foundations. Fascia adaptations in length and flexibility support resilient movement or compensation falling away from center, altering structure, energy, perception, and proprioception.

Fascia is organized in three continuous envelopes and multiple layers interwoven into planes. Organizing layers is central to

unwinding, relaxing, and releasing structure. Fascia subcutanea is the web beneath the skin. This “greasy” protein fabric is removed in anatomical dissections to expose muscles and familiar landmarks, but ignores the essential character of fascia in the formation of muscle, bones, and organs, as well as fibrous tissue repair from injury. We rely on the continuity and communication inherent in soft tissue dynamics to affect structure and function simultaneously — the same medium of communication, change, and flow of the *dan tien*, or triple warmer, exercised in acupuncture. This *tela*, or web, is continuous throughout extrinsic musculature into the fascia profunda — the deep second layer surrounding and investing intrinsic musculature into joints and bones via the periosteum surrounding and investing the matrix of bone.

The third layer (subserous fascia) surrounds, supports, and invests visceral organs. Together, these layers communicate inside to outside, structure to function, flowing from head to foot, binding body and structure as a tensional continuum at the effect of habitual holding, movement patterns, and injury. You probably know someone recognizable at a distance by their posture or the way they move. It is as individual and personal as one's signature.

This plastic, resilient medium conforms to the demands made upon it. Deviations from vertical integrity require splinting and vital energy for support. Structure and function are affected by trauma, compensation, gravity, and time. One option to random entropy is tensional integrity, or tensegrity — a state of equal distribution of weight, compression, and tension in all members or struts of a structure. Integrated structures involve balance of extension and expansion of the framework from a stable center out. A human being is in expansional balance when the force lifting her in the field of gravity is equally distributed throughout the body, as one equal tensional field of force expanding omnidirectionally in space balancing the two polarizing forces of the vertical

and the horizontal. All this sounds very linear in description, but it is a circle of relatedness in practice.

The Interrelationship of Layers

The prescription of SI — the Recipe — is a map shaping the intention of the journey by systematically processing structural anatomy from superficial to deep, head to toe, front to back, side to side, and inside to outside. It is a distillation of knowledge, wisdom, and experience that is immediate, direct, and economical. Rolf recognized that a body is organized in concentric layers, that body function can be understood only by realizing the interrelationship of these layers. By addressing layers, the series has a cumulative effect greater than the impact of one session or another. Each session generates a wave of change to the fascial network, affecting all systems of the body simultaneously. In sequence, each session predicts the need for the next, inviting random disorder to surface, unwinding years of habituated compensation that has become painfully normal and all too familiar.

The map leads practitioner and client into a voyage of discovery and the promise of personal evolution. This series is a field for exploration into the nature of being in time, space, and gravity. Structure becomes a metaphor for function, breath a window to resilience moving through the system. The Recipe is a koan, the series an odyssey approaching the whole person, affecting body, mind, psyche, and spirit through structure.

The Recipe is a seven-step process — a sequence of myofascial manipulations perturbing unconscious postural patterns, moving from superficial to deep layers, exposing underlying compensatory holding and tension. Principles of the work are encrypted, woven into the Recipe. Work in the front of the body is in service to the back; back work is in service to the front; work above is in service to the base; and base work serves structure above. As above, so below.

Every session addresses the necessity of bringing the pelvis into a

horizontal state by organizing, stabilizing, and mobilizing that most central of segments. By addressing the relationship of pelvis to ground through the base of support (and pelvis as base of support for the spine, cranium, arms, and shoulder girdle), a new gestalt emerges around the line.

Clients coming for the series are ready for change. First, we see how the body is ordered in space. Random bodies move toward disorder by falling away from the center, which begins a cascade of splinting and compensating expressed as chronic flexion or extension. We look for what is right and make space for that to get better. Our intention coheres in a vision of postural integrity, symmetry, and equipoise by evoking, rather than imposing, order. Every body has an implicate order awaiting space for expression. The series is a ritual of centering, like clay on the potter's wheel becoming a ceramic pot. Balanced pottery is a container of space organized around its center. The art in this craft is knowing when less is more.

A Series of Sessions

The first three sessions in the SI series open the superficial fascial web, diminishing surface tension to open space for deeper holding and compression to surface. An organism falling out of balance is reinforced by chronic holding. As a unit, these three sessions initiate deconstruction of unconscious holding patterns by opening and lengthening the anterior, posterior, and lateral compartments from foot to head. The manipulations rehydrate desiccated tissues and layers that become laminated. Vertical structures require spatial definition communicating support through the system. As this sleeve opens, the center receives space to begin awakening. We start opening the anterior thorax, enhancing vital capacity. As the front opens, the back responds, releasing and diffusing around and through the system. Enhanced oxygenation liberates energy while making resilient space to receive changes made during the second, or “base of support,” session.



Continuing core-base opening up in the pelvis and spine.



Breathing pelvis connected down to Earth and up through the spine.



Separation of girdles decompensating the spine.



Organized girdles connecting through open lumbar.

During this second session, balance is enhanced, improving the foundation of the feet over the arches. As they relate to the ground better, they give support to the legs, pelvis, and spine. At the end of two sessions, the anterior and posterior compartments are open, the base enhanced, and the spine begins extending but it needs something more. The third session opens the lateral compartments, tying front to back, top to bottom, supporting major body segments as they relate in space. This session is one of line, dimension, communication, and lift.

These are important foundational sessions as liberation of the sleeve invites the expression of structural/functional options when the system relaxes into a new orientation, an emergent order. Space allows for derotation of joints and major segments moving into improved relationships. Motion is more continuous and fluid as the body begins extending in space. The line is beginning to express itself. An open sleeve makes space for core expression. The arms and shoulder girdle begin hanging, relating to the sides. Weight bearing is moving toward the center of the leg. Compensatory holding in the legs and hips is relaxing its grip on the pelvis and spine. The feet have space to respond to changing pressures from above, transmitting, reorienting as a solid, resilient foundation diminishing straining, allowing the body to feel grounded, connected, and long. The thorax responds to breathing with omnidirectional expansion as the diaphragm embraces and moves to fill increased space. Organs start settling into appropriate spaces as the pelvis begins its journey toward horizontal balance. Subserous fascia enveloping viscera resonates and reverberates the massaging effect of breath through the organism.

Opening the sleeve avails space for core awakening. Different models have differing opinions about what the core is, but for structure we define it as the axial skeleton, diaphragm, and ileopsoas relationship. The center of gravity is moving

toward, and relating to, the central vertical axis. The line expresses its presence through shifts in proprioception, ease of movement, increased energy, psychoemotional opening, improved balance, and an intangible feeling of lightness. Ripples of released tension rise through myofascial structure in search of the next place to get stuck. An open sleeve allows that to diffuse. Indescribable things happen as the structure organizes vertically and the wisdom of being and body integrate a new paradigm. The essence of these changes is not so new as to be unsettling; rather, there is something natural, familiar, and inviting in this exploration of how we occupy space. The body always wants to go to a better place, and these sessions open the way to restructuring awareness.

Sessions 4, 5, 6, and 7 are the heart of the Recipe. The superficial sessions created space and resilience in the sleeve to accept and embrace deeper change from the core out. The pre-fourth session body looks longer on the outside and shorter on the inside. The pelvis now needs unwinding and balance. We approach this project through the underpinnings of holding in the base of support. Pelvic imbalance and restriction is reflected in the femurs, down into the feet, and up into the spine. Working the adductor-iliopsoas continuity breathes new support into and through the pelvis into the spine. "Horizontalizing" pelvic structure in its balancing act over the trochanters evokes deep movement up into the lumbar spine, viscera, and proprioception as the lumbar extend and breathe. Retiring extrinsic myofascial patterns allows space for balancing and mobilizing as the hips release restrictive holding on the sacrum, allowing the pelvis to breathe, indicating a resilient, stable organization in the base of support — a prerequisite for spinal extension and poising the cranium at the apex. Balance, ease, and stability are hallmarks of the axial skeleton, organizing around the central vertical axis. The seventh hour is cranium and



Finding the line, unwinding from the center out, integrating core lift with grounded base.



The layers begin to open and breathe with time, space, and gravity; grounded life supports body and being.

axial skeleton specific, and the spine is at the height of extension. After that, we have no new anatomy to explore, and the series could end. But Rolf saw that structures would lose integrity in and around the lumbar spine. The body needed global attention to balance and symmetry.

Sessions 8, 9, and 10 require a shift of attention and intention. We are less concerned with parts and segments and more interested in spatial relationships and orientation. Artistry is the essence of this integrative trinity in order to complete liberation, organization, and stability of the axial skeleton from appendicular holding (Rolf-speak for the process of balancing arms and shoulder girdle, and legs and pelvic girdle around the line — balancing sleeve with core, doing with being). Strain from above and below has conspired collapse in the middle. We have to determine which of the girdles is imposing and pulling compensatorily on the lumbar spine. Working from the middle out to the extremities, we put segments where they belong and make them move appropriately. The mobile stability of the foundation moves with greater resilience, connection, coherence, and ease. Arms and shoulders work more freely, relating to the sides anew, organized around the spine, allowing the cranium a new freedom relating to spine and line.

Session 10 is a capstone, a global manipulation organizing and integrating segmented structure in space, balancing the horizontal with the vertical. We occupy space differently. There is fullness to our awareness as the body moves resiliently in expansional unity rather than an aggregation of parts. Once fulfilled, the sense of being centered is quietly powerful in our presence. One feels less fragmented. “Sense-ability” begins extending from inside out. It takes time for feelings to percolate up from the unconscious into conscious awareness. The energy field of the client is fitting into the energy field of the planet ... and beyond. These are physical, metaphysical, and existential considerations we don’t fully understand, yet. A new sense of self is emerging. We have choice in opening, relaxing,

releasing, healing, or reacting — attempting to control a process deeper than personality.

Three Powerful Allies

After the basic series, reinforcements arrive in the form of time, space, and gravity. These three allies continue curing what has been initiated. Posture through alignment continues to improve for a year or more.

One of the gifts of this series is an expanded sense of acceptable experience, awareness, and relation to what is happening inside as feelings of health and well-being move to vitality. The basic series is a profound excursion integrating and balancing structure with the electromagnetic ocean all around us. Structural integrity overcomes postural insecurity during a journey from the inside out. We begin to have a glimmer of becoming the center of the cyclone. The series is a profound personal educational experience, orienteering and aligning with nature. We walk toward new opportunities and choices, embracing movement through life.

Therapeutically, this series is a potent force for clarifying the effects of stress and injury, but Rolf was clear in relating that her work is about healthy people getting better, a more human use of human beings, and the idea that integration transcends the palliation of symptoms. She was interested in the physics of consciousness, opening the doors of perception, and the meeting of matter, energy, and medicine. The basic series is a pilgrimage toward centering in the physical manifestation of one’s being. It is a commencement exercise and staging platform for entering the here and now, exploring the up/down in the body of one’s nature. Being the interface between heaven and earth, one opens into the security of feeling at home in the body entering an open universe. **M&B**

David Davis is a native Coloradan living in Crestone with his wife Lorain Fox. He was transformed by the work in 1973, trained at the Rolf Institute in 1976–1977, and received advanced training in 1985. He is a founding member of the Guild for Structural Integration and has been a member of the teaching staff since 1990. He practices privately in Crestone and Denver.

Ethics

by David Delaney, Certified Advanced Rolfer

The hallmark of a profession is the recognition that the work its members perform influences, sometimes in an extremely direct, profound, and immediate way, the lives of their clients. The powerful nature of this influence makes the ordinary rules of the marketplace (based on the principle of "buyer beware") inadequate. Society asks the members of the given profession to agree to be held accountable. At its heart, this code calls for the profession to protect and promote the welfare of clients, and to avoid letting the professional's self-interest place the client at the risk of negative influence and harm. In addition to the fundamental code of ethics, there may be a code or statement of the rights of the clients.

Perhaps because society would never put complete trust in professions to enforce their own standards (remember the Enron and subsequent corporate ethics violations in the news recently), and perhaps because the professions have demonstrated that they, at least occasionally, are less than vigorous, scrupulous, and effective in governing their own behavior, society has established additional means for attempting to ensure that professions meet minimal standards for their work and that those who are served by the professionals are protected from the iatrogenic (helper-caused problems) harm that can result from incompetent, negligent, unscrupulous, or otherwise arrogant and ignorant practitioners.¹

Three mechanisms hold Rolfers, as I see it (and other unlicensed professional helpers who touch their clients), formally accountable to an explicit set of professional standards: The Rolf Institute's® ethics process (which in our case is a mechanism to protect the Institute, as I was recently told, and then to help negotiate ethics violations before they get out of hand); civil court (malpractice); and criminal court.

When I did my Basic Rolfing® practitioner training in 1985, ethics education was no more than anecdotal stories; there was no formal ethics training as I remember or professional orientation to speak of as there is today (Rolfing Instructor Tessy Brungardt says that there is currently an ethics portion to the training). And so I bumbled into the world with those values and morals which I had absorbed from the world I grew up in, and from what wisdom I had assimilated from life experiences, and began pursuing the work of Rolfing. Most of us have done the same, and each one of us has his or her own life values and experiences which are varyingly based on ethnic background, spiritual indoctrination or not, class, education, financial situation, regional upbringing, etc. There are multi-leveled interpretations of any Code of Ethics; this is the reality in the diverse culture that we have the great fortune to live in.

In my training for licensing as a psychotherapist at Regis University in Denver, professional ethics is suddenly in my face at a whole new level. I also completed the State of Colorado Jurisprudence Training in order to legally practice psychotherapy in a mental health facility during my internship. While I have been studying, researching, and writing numerous papers and reports on the topic of ethics and professional orientation, I have had an eye towards passing along some of what I have discovered about professional ethics as it relates to the counseling world. I now believe the Rolfing community needs to develop our knowledge of ethics to a higher level than we have in the past, and incorporate it into our training and ongoing membership education.

This article is only an introductory one; my intention is to put onto the table some key areas which I hope might stimulate further process within the Rolfing community and perhaps assist some of us in our daily practices.

"As Rolfers, we believe in the dignity and worth of the individual human being" is the first sentence to the preamble of the Rolf Institute Code of Ethics. It is typical for a code of ethics to aspire to the highest of ideals, though there is often a gap between what we aspire to and how we actually behave. It goes on: "While pursuing this endeavor, we protect the welfare of any person who may seek our services, we do not use the professional relationship, nor do we knowingly permit our services to be used by others for purposes inconsistent with these values. While demanding for ourselves freedom of inquiry and communication, we accept the responsibility this freedom confers, for competence where we claim it, for objectivity in the report of our findings, and for consideration of the best interest of our clients, our colleagues, and our society."²

INFORMED CONSENT

The process of informed consent provides both client and therapist with an opportunity to make sure that they adequately understand their shared venture. It is a process of communication and clarification. Each of us has our own approach, and it might not be adequate in this litigious society. Does the practitioner possess at least the sufficient understanding of why the client is seeking help? Does the practitioner know what the patient expects, or hopes, or fears from the Rolfing process? Does the client adequately understand the approach the practitioner will be using to assess or address their body? What are the goals of the treatment, the possible consequences, and the limits of practice (will the Rolfer work inside one of a few body cavities at some future moment?). What are the risks? What are the benefits? How much time will treatment take, how much will each session cost and how will it be paid for, what are the consequences of the missed sessions, and what recourse does the client have if he/she feels a violation? You get the idea.

In my own case, I was very timid when I came to receive the work, and my Rolfer gave me the standard Rolfing waiver to read and sign. There was little other discussion. And so I did not know what to expect or what was the norm or what I would do if I had a problem. I behaved similarly when I became a Rolfer until I began to learn, through some intense and difficult experiences, that I needed to better prepare

the client for the process and establish grounds for the relationship.

Informed consent is an attempt to ensure that the trust of the client is truly justified, that the power of the Rolfer is not abused intentionally or inadvertently and that the caring of the Rolfer is expressed in ways that the client clearly understands and desires. Case law has, I believe, provided a clear analysis of the basis and working of informed consent. Much of this case law has concerned medical practice, but the relevance of the principles to what we do is inferred because if any one of us ended up with charges from some client that made its way to a court of law, it is entirely likely that we would be treated like any other medical worker or counselor. And here is where I'd like to say that although we might see ourselves as "educators" primarily, the legal world will in all likelihood not. I suggest that we would be held to the same standards as the medical and mental health professional or at least we need to cautiously orient toward that possibility.

Historically, the health care professional took a fairly arrogant and authoritarian position in regard to what the patient needed. A landmark in the shift away from an authoritarian approach appeared in a New York case. In 1914, Judge Benjamin Cardozo wrote: "Every human being of adult years and sound mind has a right to determine what shall be done with his own body."³ No professional can any longer afford to be seen as arrogant or authoritarian and this is why we need to have clearer informed consent. This informed consent might need to go as far as stating, for instance, that sexual intimacy is not ethical and even illegal, and direct the client to the authority they need to contact if such a situation occurs. This is the law in Colorado; the mental health worker must include this and other essentials about the client's rights in their disclosure statement.

CONFIDENTIALITY

Confidentiality is exactly what it says: the client has the right to confidentiality from the professional. Each practitioner should have a sense of their particular local and state law, whether licensed or not regarding this area. If a client shares something with you, and you share it with another person, unless you have their permission (it should be in writing), you have breached confidentiality and theoretically could be

liable for that mistake.

BOUNDARY MANAGEMENT

This topic is rich in its breadth and width. Boundaries are not black and white, are often difficult to know exactly, and need to be constantly reevaluated and renegotiated in the physical, emotional, intellectual, and spiritual (identity) realms, depending on the individuals involved. What may be appropriate for one person will not be for the next. When boundaries are crossed, respect may be lost for your professional status, the client's rights may be violated, and your effectiveness and that of your work will be weakened. The goal of helping the client must always be the primary focus.

During the 1980's, sexual relationships between therapists and clients received considerable attention – perhaps an outcome of the freedom experienced in the 1970's. As is stated in the *Code of Ethics*, sexual relationships are clearly unethical because the practitioner's needs are now part of the equation. It states: "We protect the welfare of any person who may seek our services. We do not use our professional position or relationship for purposes inconsistent with our values. We do not attempt to transfer the authority of the teaching relationship inherent in Rolfing to other associations with our clients, realizing that sexual relations or the imposition of opinions, prejudices, or personal preferences of any kind is detrimental to the welfare of our clients."⁴

As the practitioner, we carry the power whether we like it or not. If we are experiencing sexual intimacy with our client, we are no longer caring for their needs; we are satisfying our own. And Austin, Moline, and Williams reviewed relevant court cases and came to the conclusion that therapists who engage in sex with their clients had few arguments they could use in court. Courts have rejected the idea of consent by clients, mainly because of the vulnerability of clients and the power of the transference relationship.⁵

In the transference relationship, it is proposed, unresolved issues that have been stored in the psyche/body come to the surface for the client and are transferred to the practitioner (an internal process gets projected outward onto someone else). Here the practitioner experiences counter transference, which can be a therapeutic tool if there is an awareness of it as such. But at

times, the practitioner is unable to separate the therapeutic relationship from their own personal needs and feelings surrounding the client.

It is interesting to note that male therapists are the biggest percentage of offenders in all the studies that I looked at in establishing sexual relationships with their clients. The power differential between practitioner and client should be considered soberly, as touching often elicits different feelings in men than it does in women.⁶

In *Issues and Ethics in the Helping Professions*, Corey feels that training programs have a responsibility to help students identify and openly discuss their concerns pertaining to sexual dilemmas in practice. Prevention of sexual misconduct, he says, is a better path than remediating. He feels that students should receive explicit instruction on the ethical, legal, and practice issues pertaining to sexual abuses. And ignoring this subject in our training of students sends a message that the subject should not be talked about, which will inhibit a practitioners willingness to seek consultation when they encounter sexual dilemmas in their practice.⁷

According to Pope, Sonne, and Holroyd, the tendency to treat sexual feelings as if they were taboo has made it difficult for helpers to acknowledge and accept attractions to clients. They found the most common reactions of helpers to sexual feelings in therapy were these:

- Startle, surprise, and shock
- Guilt
- Anxiety about unresolved personal problems
- Fear of losing control
- Fear of being criticized
- Frustration at not being able to speak openly or at not being to make sexual contact
- Confusion about tasks
- Confusion about boundaries and roles
- Confusion about action
- Anger at the client's sexuality
- Fear or discomfort at frustrating the client's demands

They note also that there is a difference between finding the client sexually attractive and being preoccupied with the attraction,

a very important distinction.⁸

Included here are suggestions for self-processing sexual attractions that are a very normal and human reaction for the hormonal and biological creatures that we are:

- Acknowledge the feelings of attraction to yourself
- Explore the reasons you are attracted to a client
- Never act out these feelings of attraction – you have lost objectivity
- Seek out an experienced colleague, supervisor, or personal therapist who might help you decide what course of action to take
- Seek personal counseling, if necessary, to help understand your feelings about this client and to uncover the issues in your life that may be triggering them
- Monitor boundaries by setting clear limits on physical contact, self-disclosure, and client requests for personal information
- If you are unable to resolve your feelings appropriately, terminate the professional relationship and refer the client to another practitioner. Be sure to make it your problem, not your client's problem⁹

Sexual misconduct is considered to be one of the more serious ethical violations and is also one of the most common allegations in malpractice suits. It is also perhaps a bigger problem when a student ends up in a sexual relationship with their instructor or supervisor, and can have long lasting negative effects on the student.

CONCLUSION

I have intended to open a discussion here about our informed consent and our ethics process and ethics education process in general. At present, our ethics process appears to be a way to protect the Institute. Historically, the chairperson has also taken on the role of mediator between the Rolfer and the client who placed the complaint. We need to re-evaluate our overall thinking, take greater responsibility for the clients who are attracted to the Rolfering process, and insure that our informed consent process is sufficient to protect their rights, beyond our weakness, ignorance, blindness, and as Les Kertay, former Chair of the Ethics Commit-

tee calls it, "just plain stupidity." If the client understands her/his rights, it is shown that it strengthens the effectiveness of the work.

NOTES

1. Pope and Vasquez. *Ethics in Psychotherapy and Counseling*. Jossey-Bass, Inc., 1998. p. 20.
2. *The Rolf Institute of Structural Integration Code of Ethics*. Rolf Institute, 1997. p. 1.
3. Pope & Vasquez, op. cit., p. 128.
4. Rolf Institute, op. cit., loc. cit.
5. Corey, G., Corey, M.S. and Callahan, P. *Issues and Ethics in the Helping Professions*. 2003, p. 284.
6. Ibid., p. 272.
7. Ibid., p. 267.
8. Ibid., p. 270.
9. Ibid., p. 269.

David Delaney is a Masters candidate at Regis University in Denver in psychotherapy toward practice as a Licensed Professional Counselor, which 39 states now license. He is also the newest member of the Rolf Institute Ethics Committee.

The Ethics of Touch

by Lael Katharine Keen, Certified Advanced Rolfer

What constitutes ethics in a helping relationship? What is ethical touch? These are questions that have accompanied me for thirty years, first as a recipient of Rolfin®g, later as a Rolfer and still later as a teacher of Rolfin®g. In this time I have seen, experienced, heard of and done many things that I now believe were unethical — a violation of body and psyche.

I have also experienced, witnessed and given that quality of respectful touch and presence that I now believe to be the single most important factor in how deeply our work affects our clients. When I speak of ethics, I am not referring to the more obvious behaviors such as professional confidentiality, maintaining appropriate sexual boundaries with clients, etc. I am addressing something that is far more subtle and difficult to define — the underlying set of attitudes, conscious or unconscious, that inform the way we touch.

THE SELF-REGULATING CORE VERSUS THE PRACTITIONER'S IDEA OF WHAT THE CLIENT NEEDS.

In struggling to understand the nature of ethical touch, I have been helped by the concept of what Dr. Peter Levine refers to as the self-regulating core, which is the body's deep instinctive knowledge and capability for self-healing. In the innate wisdom of the self-regulating core lies the knowledge to release

chronic tension and allows the body to lengthen, open and embody more grace and less dis-ease.

Each one of us has this knowledge, far deeper and infinitely wiser than anything that our intellect could imagine. There is a rhyme and a reason to why we are the way we are, in sickness and in health, that our conscious mind frequently does not understand. Even less can it be understood by an "objective observer" — doctor, therapist or Rolfer.

For instance, a set of elevated, hunched shoulders may not be structurally efficient, but they represent the best way that once upon a time our organism had at one time to defend itself in a difficult situation. The self-regulating core best knows how to let the shoulders relax, rest down and become the "easy yoke" on the supporting ribcage. For us as Rolfers, to impose our vision, timing or the pathway that we believe is right upon another, is to violate their uniqueness. More often than not, this violation occurs with the best of intentions on the part of the practitioner, and is not consciously noticed by the client. That does not, however, mean that it didn't happen or that we don't deal with the effects of that interaction every time we touch the client.

TOUCH AS DIALOGUE VERSUS TOUCH AS MONOLOGUE

Since the client's body/mind contains all the information we could ever

need about how to help him or her, when we put our touch at the service of the client's self-regulating core, we become the willing aids of the body's deepest wisdom. To do this, however, we have to be able to listen, and listening requires that we put aside preconceived ideas.

At the beginning of a Rolfin®g session we have a brief interview with the client and do a body reading to assess what areas we wish to address in the session. As the client lies down on the table, we already have an idea of where to work and what we would like to see happen. This is both our greatest strength and our greatest weakness. A strength, because we use our vision and our knowledge of the body to figure out places that may be the most fruitful to work with, and a weakness because it predisposes us to thinking we know, when we don't.

Ultimately, it is the client's body that tells us what is needed, and to receive this message our minds must be open and our hands receptive. When we touch, thinking we know what needs to be done, we can not receive this information.

How does the body say yes to a given direction or touch? The tissue flows and melts and dances with our hands. The touch may be deep, but the movement is easy. How does the body say no to a given direction or touch? The tissue resists, pushes back and closes before our hands. If you are sweating and straining when you are Rolfin®g, it is almost certain that

you are not listening to the body, that you are overwhelming and violating its defense systems.

To be ethical, every time we touch someone we must remember that all our skill can take us no further than the doorway of the client's world, where we must stop and knock and wait for the invitation to come in.

EXERCISE— TOUCH AS A DIALOGUE #1

Do an entire Rolfing session where each touch, each intervention, starts with putting your hands on the part of the client's body you're thinking of affecting, and doing absolutely nothing but listening until you can feel the various types of movement that already exist in this place: pulse, response to breathing, motility etc. You make the intervention in rhythm and in dialogue with these already existing movements. How does this change your work? The way you relate to your client? The way your client relates to you? The response of the client's tissue to your hands?

LANGUAGE AND THE OBJECTIFICATION OF THE CLIENT

The words we use to ourselves, our clients and our colleagues to describe what we are doing when we are Rolfing, define the way we do it, the parameters of the relationship between Rolfer and client, and the quality of our touch. For example, the goals of the third session, straight from the recipe that I assiduously copied and studied as a Rolfing student: "Establish a lateral line." "Build the space for the 12th rib to function and it will" [IPR]. Or the fourth session: "Create span in the floor of the pelvis."

What is the tacit assumption that is carried in these words? We are saying that we are the builder, the creator. What does that make the client? An object; raw building material, at best.

This pattern of speech/thought is unfortunately very common in our community. How often do we hear things like "I opened up her ribcage" or "...after I unwound the diaphragms and straightened out his legs he looked just great"? Any time we use language that cast us as sculptors, builders or being the cause of the client's change we, by omission, objectify our clients and reduce them to less than human status. And this reflects in our touch and in our relationship to the client.

EXERCISE: EXPERIMENTING WITH THE WAY YOU TALK ABOUT YOUR WORK

Try changing your pronouns from "I" to "We" when you talk about the work. (The other half of the "We" is your client). So instead of, "I opened up that ribcage," say, "We opened up your ribcage." If you were the client, how would this change of pronoun effect the way you feel about yourself? Your Rolfer? Your capacity to change?

When you are working listen to the words you use as you think about what you are going to do. If you find yourself thinking, "I'm going to unwind this, release that, straighten this out" change the words to, "I'm going to help this unwind, help that release, help this to straighten out." How does this effect your touch? Your view of the client? The response of the client's tissue to your hands?

CLIENT AS MYSTERY VERSUS CLIENT AS OBJECT

Some years ago I attended the European Annual Meeting and, in an impassioned discussion on whether the effects of Rolfing last or not, heard a Rolfer there likening Rolfing to plumbing. He said something to the effect of, "A plumber goes to plumbing school and learns how to fix the pipes. Rolfing should be that way too. After going through Rolfing

school I should know how to fix it and it should work all the time."

Thank goodness that it isn't like plumbing school! I, for one, would have long ago found another kind of work. We work with human beings, who are rich, complex entities and not pieces of pipe!

Consider the client who for some reason is not available for the change we propose. Our idea is to "open up their ribcage" but their body has very different ideas. It may be that inside that "shut down" ribcage are memories and emotions of some past abuse the person does not have the support or resources in their life to face. Or maybe their spouse or parent sent them to get Rolfing, and they resist the change due to an underlying power conflict with that family member. The reason doesn't matter. When the person, consciously or unconsciously, is not available for the change, they don't change. We can Rolf them until our knuckles fall off, we can do the latest biomechanical technology, we can do a headstand at the end of the Rolfing table, they won't change.

Our clients are beyond our ken. And paradoxically, when we remember this we are far more capable of honoring the essential mystery that they are.

We do not have the power to change another person. What we do have within our power is to use our knowledge and our hands to act as catalysts for the change that the client desires. We do have the capacity to help the client clarify the often tangled threads of want and not want in their being, and become available for a change that they want to make.

Change occurs because the client wills change. We are the tools they use. Our role as tools, or catalysts, is best served when we place our knowledge at the disposal of the self-

regulating core, and learn to listen to the tissues' way of saying yes and no, and then respect what it tells us.

THE DIFFERENCE BETWEEN BEING A HELPER AND BEING A SAVIOR

Many of us (myself included) came to Rolfing with high ideals to help alleviate suffering and bring the integrative, transformative potential of Rolfing to others. So what is wrong with that? In my experience, the desire to help others is always a double-edged sword. The altruistic, humanitarian side is present and real, but behind that often lurk far less noble motivations. Being able to "alleviate" some one else's pain is an enormous power trip and a boost for the practitioner's self image. The savior personality draws much of its sense of self worth from the positive effect that it is able to "produce" on others.

Empowerment is a word that we hear a lot in the Rolf Institute. We hope that our work with our clients not only helps them to have a more integrated, balanced structure, but that in the process of the work they learn enough about themselves that they can fine tune on their own, and not be dependent on us to maintain their contact with their new-found well-being. The way we, as professionals, relate to our clients has a lot to do with how much they will take responsibility for their own changes and how much they will project that responsibility onto us. When the tacit contract of the relationship is that the Rolfer is saving the client (or fixing him, or taking away his pain), the roles polarize into all-powerful, hero Rolfer and helpless, object client. Whether it is the Rolfer, the client, or both together that initiate this interaction, the client is not being served.

Another way of saying this is that in

a relationship where the Rolfer is acting in the role of helper, the client is the primary focus. The Rolfer is the faithful companion on the client's heroic journey (I thank Tom Wing and Heather Starsong for this metaphor). When the Rolfer identifies with the role of savior the Rolfer's great skill and brilliance, or mission to save the world, become the focus of the session, and the client is relegated to the role of companion on the Rolfer's heroic journey. (See comparisons below.)

FEAR OF DEATH — THE HEALER'S SHADOW

Playing the role of savior is a defense that is frequently found in the "healing" professions. When we feel that we are the cause for the client's cure, it gives us the illusion that we have power over another person. It's a small and slippery step when we are in the realm of our own unconscious denial, from having power to make the client better to having the power to outwit old age, injury or decrepitude in our own body.

The end of our journey on this physical plane is the end of our physical body. We all die. Sooner or later, this body that is the medium of our work, and with which we identify ourselves, will fail us. Or, as my friend and colleague, Bill Smythe, once said, "No matter how straight you get, you're still going to die."

This knowledge is inherent in our flesh and although many of us don't entertain it consciously, it lives within us. It is always there.

For those of us that have spiritual beliefs or who have had the privilege of being present for some luminous deaths, the immortality of the soul may be an article of faith. But our bodies fear death. Show me a person who says they're not afraid to die and I'll show you someone who is living in illusion.

Another defense, found widely in New Age circles, is an oversimplified belief that "you create your own reality." Thus, if you are sick or injured there is a very rigid cause/effect relationship between some inner attitude that is in need of correction and the outer physical condition. Healing is a simple matter of finding the belief system that needs changing or the emotion that needs expressing, doing so, and the physical body will conform by returning to health.

It is a tempting, easy solution to adopt the belief that we are completely responsible for the state of our physical bodies and to perpetrate this belief on our clients. To be confronted with disease and loss of physical capacity in another person is a frightening thing because it puts us in touch with our own impotence. Some part of us knows that tomorrow it

THE SAVIOR

- The practitioner is the hero
- You do it to the client
- The practitioner's vision guides the session/intervention
- The practitioner's identity hinges on fixing the client
- The practitioner needs the client to get better

THE HELPER

- The client is the hero
- You do it with the client
- The self-regulating core of the client guides the session
- The practitioner's self-esteem is intact independent of effect on client
- The practitioner has space inside his/herself for the client not to get better

could be me or some one I love, who has a car accident and is paralyzed from the neck down, or is diagnosed with metastatic cancer. The belief that we are the sole creators of our own reality gives us the illusion of being able to control things that we do not. It pushes the ever-present shadow of death a little further into the darkness of the unconscious.

This is not to say that there is no correlation between that which ails us and the way we live our lives, use our bodies and hold our belief systems and emotions. In my work with Rolfing, Rolfing Movement, and Somatic Experiencing, I have had the honor of being present with people as they touch the places in themselves where thought, emotion, symbol and physical reality are intertwined. Yet, to say that we can vanquish disease and pain by changing the way we think, is a vast oversimplification and does no justice to the mystery that we are. The deeper layers of our being where mind and body flow together and are indistinguishable one from the other are not accessible via the cerebral cortex.

We do not reach the place where we can make a change in the order of our physical being by willing or controlling. We reach it by surrender and acceptance. When we penetrate the deep knots of our being and witness with compassion what we find there, a new alchemy emerges. In the moment that we observe without judgment the structure of our holding places, different options become available and the self-regulating core can and frequently does, bring forth a spontaneous new solution. By the same analysis, preconceived ideas and a willful desire to change are two qualities that bar our access to the levels of body/mind/spirit where the transformation can occur. It is a paradox that the moment that we think to "create our own reality," is

the very moment that we have locked ourselves into it.

To be embodied means that we are vulnerable to "the slings and arrows of outrageous fortune" and that one day we will cease to be embodied. This is true, not only for our clients, but for ourselves. It takes courage and an ongoing relationship with our own mortality to be truly and deeply present with another person's pain. And it is from this state of compassionate presence (com-passion, from the Latin "to suffer together") that real healing can emerge, a healing I might add, that effects both practitioner and client.

B O U N D A R I E S A N D T R A U M A

One of the foundations of the ethics of touch is respect for another's boundaries. And the topic of boundaries is invariably intertwined with the topic of trauma.

Healthy boundaries resemble a cell membrane. They are selectively permeable. They keep out that which is toxic to us and let in that which is nourishing.

Trauma effects our boundaries. Freud's definition of trauma is "a breach in the barrier against stimulation leading to overwhelming feelings of helplessness." Drs. Peter Levine and Anngwyn St. Just define trauma as an overwhelming life event. By either definition, trauma is part of the human condition.

In the aftermath of trauma our boundaries change. The place where the trauma breached our protective membrane becomes like a hole in our sense of ourselves and our own integrity. We may defend this breach so vigorously that life and other people can no longer enter to touch us (rigid boundaries) or this hole may become an unconscious open door, where we have no choice and no

control over who and what comes in (diffuse boundaries). In either case our selectively permeable cell membrane no longer functions as it should, and this causes immense pain at the emotional level and at a purely instinctive, physiological level, where we know that something is wrong with our survival skills.

How do breached boundaries get repaired? From the inside. Once again, this is the work of the self-regulating core—the natural sense of wholeness and health that is intrinsic to all living beings.

We, as Rolfers, can stimulate our client's self-regulating core or we can repress it. Often, without ever meaning to, we end up running it over and further driving it into hiding. Our attention to our clients' boundaries is a fundamental in deciding which way the scale tips.

Many times, when a person's boundaries are not intact he or she will encourage others to further rupture them. This encouragement may be tacit, or quite explicit. In Rolfing, it frequently comes in the form of suffering silently while the Rolfer works deeply in an area that causes the client emotional or physical discomfort. It may also show up as the client asking us to press harder and deeper into an area of the body where the tissue locks against us or where they experience pain. When we respect the "no" that our clients' bodies give us, we create a condition where their self-regulating core is stimulated to begin its work to repair the rupture. Likewise, when we ignore this message the tendency that this creates is for our clients to further dissociate from their body and their sense of themselves as a whole.

B O U N D A R I E S A N D P A I N

Pain is a boundary. It is the body's way of saying "too fast," "too deep," "too soon," etc. Sometimes it means

straight out “no.” In response to the theory that the Rolfer does not cause the pain, it is pain that is already there in the client’s body, I think that it is important to note that if we are working in an area where there is pain it doesn’t matter whether it was already there, or whether we are the cause of it. Pain means we have come to the boundary. Respect it.

In the 1960’s when I received Rolfing for the first time, my Rolfer handed me a blanket to bite when the work got to be too painful. I bit more than one hole in that blanket. Yes, my legs straightened out, and at the time, I thought that that was worth what I experienced as a violation. Now, in the 1990’s, I think that what I perceived as a clear cut choice at the time—no pain, no gain—was in truth a simple lack of options. If I could have chosen change with respect for my limitations that is what I would have chosen. Indeed, I have noticed time and again in my own body when I am receiving Rolfing, and in my clients’ bodies when I am Rolfing them, that when pain is perceived as a boundary and respected as such, the change is deeper and the client participates more in that change.

EXERCISE: BOUNDARIES AND PAIN

What happens when you do an entire Rolfing session without once pushing into the client’s pain threshold? Does it challenge your belief system about the effectiveness of the work? The client’s? How does it change your work?

BOUNDARIES AND TOUCH

In the 25 years that I have been in the Rolfing community I have heard a lot about working with intention or, in other words, imagining that our energy is flowing out through our fingers and into the client’s body to effect a desired structural change. I worked this way for years and never thought to question it until, in my

studies of Somatic Experiencing, I started to receive some very specific information about the importance of respecting boundaries.

The boundaries of the physical body are very clear. At the place where our fingers meet the client’s skin we discover where we end and they begin. What happens then, when we project our energy through the skin, down through layers of muscle and tissues and organs to attain a specific target structure? We have put our energy into the client. We are no longer stimulating them to self regulate, we have invaded their boundaries and are objectifying them.

Another myth that floats around in some alternative healing circles and makes its way into the Rolfing community now and again, is the idea that “becoming one with one’s client” is a desirable state. Peter Levine, in recent years has offered a distinction between what he calls merging and joining. Merging is a state where we lose our energetic boundaries and sense of ourselves as separate from the client. When I am teaching Rolfing, I can always tell when a student is merging with their client, because even from across the room, I will see their chest collapse, their head disconnect from the rest of the spine and it looks as if their body falls slightly towards their client. When I catch myself merging with my client (it still happens!) I usually know because I begin to feel dizzy and disoriented. Joining, on the other hand, is a state in which we are simultaneously present with ourselves, and our own bodies, and with our clients; we know where we end and they begin.

We can never underestimate the effect that we have on our clients when we project our intention into their bodies or allow ourselves to merge with them. A number of years ago, a psychotherapist named Nan Narboe came to the Annual Meeting and gave a talk on boundaries in the

psychotherapeutic context and how they related to Rolfing. One of the many interesting points she made was that in a Rolfing session we have one person who is unclothed and lying down, and another person who is clothed and standing up, and that this set-up, in and of itself, is already very charged with emotion and with meaning. It is a situation in which the horizontal, unclothed person is both vulnerable (in the animal kingdom exposing one’s belly is frequently an act of submission) and very likely to create a parental or authority projection onto the Rolfer. It is a situation where any lapse on the Rolfer’s part will have a magnified effect on the client and where the position of the Rolfer as expert, and as the clothed vertical figure may make it difficult for the client to articulate any sense of violation they may feel. Indeed, if the Rolfing brings other benefits, as it frequently does, the client may disregard other, less tangible feelings of something that wasn’t quite right.

The state of what Bill Smythe calls somatic resonance is the energetic foundation of maintaining our integrity when we work with another person. Somatic resonance is a little bit like the phenomena of sympathetic vibration in a stringed instrument whose string vibrates when the same note is played on another instrument. Likewise, when we are working and suddenly we find ourselves sighing in perfect time with our client who just had a spontaneous release in their body, we are usually in a state of somatic resonance with them. Somatic resonance is not to be confused with merging. Resonance, by definition, requires two.

When we work with a boundaried touch we are outside our clients’ systems. Our touch may set a change in motion, but it will be their body that orchestrates it. The relationship formed is one of therapeutic alliance. Both Rolfer and client are energized

and empowered.

When we touch and remain at the edges, layers of movement and information will rise to the surface to speak with our hands. If we can bear to wait, the information presents itself; we don't have to go diving in after it. Touching the skin, we can feel the shapes and structures beneath it, and our pressure can find the one we want to work with. When the structure we hope to affect is contacted by pressure from the outside, we are still working deeply in the body, but we are doing so without entering in with our own energy. The client's body stimulates itself, in response to our impulse from the skin.

The difference that this kind of touch can make is enormous. Suddenly, instead of pushing our way in to make a change, we find ourselves witnessing a change that we catalyzed—a change that is frequently much farther reaching than any we could have planned. At this point, our Rolfer's vision and understanding of structure becomes the aid that tells us where to touch to stimulate the client's self-regulating core in the most efficient way. Indeed, I have found time and again, that just contacting the person from outside and staying there, without penetrating them energetically, is such an unusual interaction that their system will mobilize huge changes, from the most energetic levels to the most structural levels. How often are any of us simply met by another person without hidden agendas, or conditions, or invasion? Just met. There is something ultimately powerful and transformative in this meeting.

EXERCISE: BOUNDARIES AND TOUCH

The Place Where We End and They Begin:

Do a Roling session with a friend or colleague, or somebody you feel comfortable experimenting with. When you touch them feel your skin at the point of contact. This tends to

keep your energy/intention in your own container. Then, try the contrast. Feel their skin at the point of contact. This tends to open a "leak" where your energy/intention spills into their body. What difference do you notice? What difference do they notice?

CONCLUSION

Ethics is a many-layered subject. To be an ethical practitioner of Roling, or any other helping profession is an ongoing and ever-deepening practice. Just at the moment that we think we have it all figured out, we invariably come across another layer of our own contradictions and lack of ethical behavior. This is not a sign of failure, but rather an indication that we continue to grow and become aware at subtler levels.

When we touch another person, we have our hands on the Living Mys-

tery. We cannot ever know, and that is the infinite joy and fascination of our work. I have done my best in this article to share the questions and surprises that have shaped my journey these last twenty years. I hope that all my coming years with the work will only serve to deepen my capacity to fall into the not-knowing that is the basis of what allows us to truly meet another person.

ACKNOWLEDGMENTS

Many of the ideas I have shared in this article and many of the insights that I have had have been a direct result of my studies of Somatic Experiencing and Somatic Traumatology, with Drs. Peter Levine and Anngwyn St. Just. I have done my best to credit them when quoting directly, but their influence goes far deeper than the few times they are quoted in this article. □

Before I became a member of the Council of the Certification Program for Massage Therapists/Bodyworkers, I participated as a member of the Job Analysis Advisory Committee. Part of our job was to help in the creation of a job analysis survey questionnaire in order to determine the knowledge, skills, and abilities required for an entry level massage/bodywork practitioner. Early in our discussions, I and a number of other members realized that Rolfing and certain other forms of manipulation clearly were not entry level practices. Furthermore, I recognized immediately that the scope and nature of our work had been not understood properly and hence was not being represented properly in the emerging job analysis questionnaire. In an effort to explain what we do and the nature of our work, I gave a little talk on the nature of Wholism and showed how Rolfing was a Wholistic

distinguish between all forms of somatic education, psychotherapy, and healing. By implication, these paradigms also provide us with a way to understand and distinguish Rolfing and its scope of practice from other forms bodywork and manipulation. As part of the ongoing effort to clarify and define our work, I want to examine Rolfing by means of these paradigms.

The Three Paradigms

The word paradigm has gained some popularity lately. Many people use it without a clear understanding of its meaning and few realize that the present use to which it is put was originally pioneered by Thomas Kuhn in his book The Structure of Scientific Revolutions. The word paradigm comes from the Greek, *paradeigma*, and it means pattern. A paradigm is a highly structured way of perceiving,

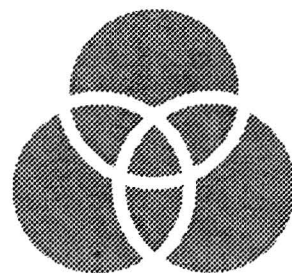
A PARADIGM IS A HIGHLY STRUCTURED WAY OF PERCEIVING, VALUING, AND THINKING ABOUT SOME ASPECT OF REALITY.

system. We then attempted to complete a rather exhaustive review of all the forms of bodywork currently practiced in America. From these discussions, we discovered three fundamental paradigms of practice which in turn allowed us to both understand and classify all forms of massage/bodywork.

These three paradigms underlie all forms of massage/bodywork. In fact, I would argue that all systems of thought and practice that are dedicated to the health and well-being of others must belong to one or more of these three paradigms. These paradigms provide, therefore, a powerful yet simple way to understand and

valuing, and thinking about some aspect of reality. The revolutionary creation of science, for example, gave rise to the mechanistic paradigm. Through the lens of this paradigm, the Western world now tends to view all of nature as a vast machine to be understood according to causal laws which are articulated in the language of mathematics. The Western world did not always look at nature in this way and many cultures throughout the world still do not. Nevertheless, to most Westerners, the mechanistic paradigm of science seems like common sense. So much so that Western medicine, anatomy, physiology and many forms of manual medicine are

Rolfing: A Third PARADIGM Approach To Body- STRUCTURE



By
JEFFREY MAITLAND, PH.D.

all based on the unexamined assumption, first put forward by Descartes in the 1600's, that the body is nothing but a soft machine. Accordingly, anatomy studies the parts of the soft machine and physiology studies how they function.

All systems of thought and practice that are dedicated to the health and well-being of the human being can be categorized according to which one or more of the following three paradigms of practice to which they must belong: Relaxation, Corrective, or Wholistic.

Practices that fall under the *Relaxation Paradigm* are oriented toward creating the relaxation response in their clients. While well-being and healing are obviously promoted and enhanced by relaxation techniques, the ability of relaxation practitioners

not treat disease might include many forms of Physical Therapy, many forms of Chiropractic and Osteopathic manipulation, deep tissue therapies, myofascial release therapies, and neuromuscular re-education therapies. Allopathic medicine, whose scope of practice obviously includes diagnosis and treatment of disease is also a corrective practice. Typically, the great majority of corrective practices are based on, supported by, and embrace the mechanistic paradigm which assumes that the human body is a soft machine composed of parts.

Practices that fall under the *Wholistic Paradigm* are devoted to enhancing the natural tendency of the whole person to seek higher and higher orders of functioning and well-being at every level of being 'from the body to mind to spirit. The symptomatic

ity which is the focus of the Roling and the energy systems which are the focus of many disciplines in Oriental medicine. Homeopathy is an example of a wholistic practice that is oriented toward the curing of disease. Even though many contemporary practitioners have abandoned their wholistic roots, Osteopathic and Chiropractic manipulation were clearly understood as wholistic by their originators. These paradigms are not exclusive and opposed to one another. They are, in fact, inclusive and interrelated. The divisions between them are neither arbitrary nor rigid. In the hands of many practitioners, various approaches from all three paradigms are often employed and overlap. Although the paradigms are not in opposition to each other, they nevertheless are hierarchically related. Thus,

EVERY WHOLISTIC APPROACH, EACH IN ITS OWN WAY, ENHANCES A SYSTEM OR SYSTEMS WHICH IS/ARE FUNDAMENTALLY IMPORTANT TO THE ORGANIZATION, STRUCTURE, FUNCTION, AND WELL-BEING OF THE WHOLE PERSON.

to treat pain, disease, dysfunction, and structural problems, is quite limited and clearly outside the scope of their training and practice. Typical examples of relaxation practices might be some forms of Biofeedback and some forms of traditional massage.

The symptomatic treatment of pain, dysfunction, structural problems, and disease is the focus of practices that fall under the *Corrective Paradigm*. Compared to relaxation approaches, practice at this level obviously demands a great deal more training and the more highly developed skills of evaluating, assessing, diagnosing and treating the client's presenting conditions. Typical examples of corrective practices that do

remediation of pain, dysfunction, structural disorders, and disease is not the primary focus of this paradigm. Nevertheless, because of the all-encompassing nature of the wholistic approach, the remediation and correction of disease, pain, and dysfunction are more often than not the welcomed and expected outcome of balancing and organizing the whole person.

Every wholistic approach, each in its own way, enhances a system or systems which is/are fundamentally important to the organization, structure, function, and well-being of the whole person. Two examples of such fundamental systems are the myofascial system in relation to grav-

for example, third paradigm approaches can and often accomplish the work of the second and first paradigm approaches. Second paradigm approaches can accomplish the work of the first paradigm but not the work of the third. If a second paradigm approach appears to have accomplished the work of a third paradigm approach, the effect is only accidental. First paradigm approaches cannot, except accidentally, accomplish the work of second and third paradigm approaches. In some cases, first and second paradigm approaches may be necessary in preparation for a third paradigm approach.

Notice also that a distinction exists within the corrective and wholistic

paradigms between those practices that treat disease and those that treat structural/functional difficulties. Thus, the second paradigm Allopathic treatment and understanding of disease is quite different in scope and intent from the third paradigm Homeopathic understanding and treatment of disease. Furthermore, third paradigm structural/functional approaches like Rolfing, for example, sometimes apparently release clients from disease processes. And third paradigm approaches like Homeopathy on occasion release clients from structural/functional problems. Obviously, however, even though Rolfing sometimes releases clients from disease, it is not our intent nor is it within our scope of practice to treat and cure disease. Likewise, Homeopathy, at least in my experience, can-

respect to gravity. Indeed, from the Rolfing perspective, balancing and integrating the whole person is not fully possible without taking account of the ubiquitous presence and impact of gravity on the human structure. In a real sense, the results of Rolfing manipulation and movement education must always be measured against the absolute reference of gravity. As Dr. Rolf said, "Gravity is the therapist, not the Rolfer."

The unprecedented inquiry standpoint and new wholistic approach initiated by Rolfing requires, furthermore, a rethinking of our traditional ways of conceptualizing body-structure and wholeness. Traditionally, the concepts of *wholeness* and *structure*, as well as most corrective practices, tend to be rooted in the mechanistic paradigm created by Descartes and New-

unified whole which must relate to gravity. In the language of systems theory, the body is a living unified system in which no one system is more fundamental to the make-up and organization of the whole than the whole itself. To be sure, some systems are more important to the continued life of the body than others. But, no one system is more fundamental to the whole than any other. The body is not composed of parts. Since there are no parts to the body, there are no fundamental building blocks out of which the body is constructed. What we call an organ, a bone, a cell, etc., are not parts but systems. Thus, every system belongs to some other system or set of systems, every system is made up of other systems, and the forces between systems are themselves systems. To

IN THE LANGUAGE OF SYSTEMS THEORY, THE BODY IS A LIVING UNIFIED SYSTEM IN WHICH NO ONE SYSTEM IS MORE FUNDAMENTAL TO THE MAKE-UP AND ORGANIZATION OF THE WHOLE THAN THE WHOLE ITSELF

not handle structural/functional issues very well. If one is seeking structural integration in gravity, I would think that one the last practices she would seek out to accomplish this goal would be Homeopathy.

The Structural/Functional Wholism of Rolfing

Among wholistic approaches, Rolfing is unique in theory and practice. Whereas most wholistic approaches aim at balancing and integrating the whole person (body/mind/spirit) with respect to itself, Rolfing adds the further requirement that the whole body-structure also must be balanced and integrated with

ton. The view that the body is a soft machine implies that the body is a complex thing composed of thing-parts. The obvious wholeness of living beings is completely missed when the body is conceptualized as complex-thing made up from thing-parts. Because of the implied conceptual and ontological commitment to *body-parts* in the part/whole distinction, the phrase, "The whole is greater than the sum of its parts," also fails to grasp the nature of living wholes. Similarly, the concept of *structure* tends to be misunderstood by being reduced to the concept of *body-parts*.

In contrast, Rolfing maintains that the human body is not a complex thing or a soft machine, but rather is a

make the same point in the language of relationship, the body is not a collection of parts but a living relationship in which all relationships are related: every relationship is an aspect of other relationships, every relationship is made up of other relationships, and the forces between relationships are also relationships.

Therefore, because Rolfing conceptualizes the body as a living unified structural whole that functions best when it is integrated and organized in gravity, the meaning and use of the word *structure* in Rolfing theory and practice is quite different than the meaning of *structure* in corrective and mechanistic approaches to the body. Since the body is already whole and

thus not composed of parts, Rolfing does not view the concept of *structure* through the conceptual lens of *body-parts*. Furthermore, since the body is not composed of parts, the practice of Rolfing does not and cannot aim at aligning body parts. Rolfing as myofascial manipulation and education aims at integrating and aligning the whole-body both with respect to itself and with respect to gravity. Every structural intervention performed by a Rolfer must take account of and affect the body as a whole in relationship to gravity. Every intervention must affect the body as a system of relationships in relation to gravity.

As we all know, Dr. Rolf insisted that our orientation and interest as Rolfers must always be focused on appropriate relationship. Indeed, she claimed, quite correctly I believe, that the Line, our most profound and important indicator of structural integration in gravity, is a logos of relationship. The Line is neither a property of gravity nor an anatomical structure. It is, as Dr. Rolf insisted, a logos of relationship. The Line does not and cannot exist apart from bodies and their relationship to gravity.

In terms of Rolfing's conceptual commitment to appropriate relationship consider a joint, for example. It cannot be understood properly as the simple articulation of bony, cartilaginous *body-parts*. A joint is a relationship among many systems. It is more than the articulation of bones and cartilage. It also must include all the myofascial structures that cross the articulating surfaces. Since fascia is the tissue that connects, it is the tissue of whole body relationship. By structural and fascial implication, a joint is connected to the whole body. A body is organized and moves through space in its own unique way because of the way its joint system functions and the joints function the way they do because of the way the whole body is organized and functions in gravity.

Every reference to a segment or component of the body, whether a bone, muscle, cell, or organ, is already a abstraction from the whole. The

theory and practice of Rolfing, therefore, understands the concept of *structure* as a system wide relationship that stands in a profoundly uncompromising relationship to gravity. The organization and functioning of the whole structure in gravity determines the organization and functioning of any individual structure and the organization and functioning of any individual structure determines the organization and functioning of the whole structure in gravity.

Clearly Rolfing is not a second paradigm practice that attempts to align body-parts. Nevertheless, when a body is structurally integrated in gravity according to the principles of Rolfing, to the eyes, hands, and conceptual framework of second paradigm practitioners, it will appear to exhibit the proper alignment of parts. This recognition, however, does not justify reducing the Rolfing concept of *structure* to the concept of *body-part*. *Structure* in Rolfing theory and practice is always understood and articulated from the point of view of integrating the unified body-whole in gravity in order to create better function.

Our concepts of *structure* and *integration in gravity* coupled with a clear statement of the principles of Rolfing, provide a way to understand why many second paradigm approaches to structural problems fail to make lasting change. A second paradigm approach whose therapeutic goal is joint mobility and whose theoretical commitment is to conceptualizing the body as mechanical thing composed of parts, will ultimately fail to recognize the ubiquitous presence of compensatory, adaptive strain patterns throughout the body. Simple joint mobilization strategies without any understanding of how these patterns reinforce structural dysfunctions can only produce temporary change. Many Chiropractic practitioners, for example, have forsaken their training and heritage and substituted the QUICK TEN MINUTE STOP AND POP method of joint mobility. Their clients, of course, bitterly complain

that the work does not hold.

In contrast to the simplistic STOP AND POP method of organizing and de-rotating the spine, consider the implications of Rolfing theory and practice. Our wholistic structural/functional perspective and principles have led us to a number of important observations about how to handle spinal rotations. A body that has not been properly prepared to adapt to a new level of order will either revert back to its original pattern or show strains somewhere else in the structure (Preparatory Principle). Since order is a function of available support, de-rotating a spine at least demands that the feet, legs, and pelvis are properly organized (Support Principle). If back/front organization has not been addressed, then the likelihood a significant and functionally beneficial spinal change is unlikely (Palintonic Principle). The Rolfing method of structural/functional wholism provides a very powerful and lasting way to both organize the body in gravity, appropriately reposition bones, and create appropriate joint mobility without resorting to high velocity osseous manipulations. Some our ability to accomplish these results is due to our having uncovered and explored a whole new range of Rolfing indirect techniques.

More needs to be said about the concepts of *structure* and *function*. What is structure? What is function? What is the relation of the interplay between structure and function? These questions have not been fully or adequately answered yet and are the subject matter of another article.

Hopefully, however, I have provided the beginnings of a way to understand the nature of our work. We need to better understand ourselves so that we can both clearly distinguish our work from other disciplines and consequently enter into a meaningful dialogue with them. □

significantly adapting to the proposed type of somatic therapy, then some other form of therapy must be found.

Depending upon the degree of adaptability in our client's body, preparatory work can occur either before, after, or at the same time we manipulate the areas associated with the client's back pain. If adaptability were a sufficient condition, then we would be required to prepare the body to receive our manipulations each and every time we intervened. But obviously such a requirement is too strong. Thus, the principles of intervention state the necessary conditions under which normal and enhanced function can appear. Since the principles do not state sufficient conditions, it is clear that other conditions must also be fulfilled for normal or enhanced function to appear, such as a skilled and knowledgeable therapist, a willing patient who shows up for appointments, a good evaluation of the patient, and so on. With these considerations in mind, let us turn to the principles.

The Principles of Intervention

The principles of intervention must reflect the nature of biological order, not the way machines are ordered. Living bodies are not soft machines created from pre-shaped parts. Rather, they are developmental wholes. They are self-shaping, self-organizing, self-sensing, seamless unified wholes in which no one aspect or relation is more important to the organization of the whole than the whole itself. As a way to begin thinking about the relationship between principles and biological order, consider an analogy from Merleau-Ponty: "In a soap bubble as in an organism, what happens at each point is determined by what happens at all others. But this is the definition of order."¹⁶ This kind of order characterizes living wholes and is at the heart and the foundation of any holistic form of therapy. It demands of the practitioner the ability to think and perceive holistically. Just as every part of the body is a reflection of the whole, every principle reflects the others. They are variations of each other, and no one principle is applicable in isolation from the others. The holistic principle is the overarching principle that governs all the others; it states how they function together in relation to each other.

HOLISTIC PRINCIPLE

No principle can be fulfilled completely unless all principles are fulfilled completely.

Because the holistic principle governs and states how the principles of intervention function together in a holistic system, it is properly called a

meta-principle. Since principles are the basis for clinical decision making, any intervention, session, or series of sessions always involves the reciprocal application and understanding of all the principles at once. The fundamental principle of holistic intervention is reflected in Merleau-Ponty's soap bubble analogy, "what happens at each point is determined by what happens at all others."

Every intervention or series of interventions requires a thorough examination and evaluation of the client across the five categories (or taxonomies) of assessment that includes a determination of which principles are fulfilled and how well or poorly they are fulfilled in each category of assessment. All strategies and tactics are formulated on the basis of how well or poorly each principle is fulfilled within the whole person. All principles must be applied in terms of what is morphologically appropriate and possible for each individual client in relation to his or her unique set of changing and unchanging limitations and in relation to gravity and the environment.

ADAPTABILITY PRINCIPLE

Integration is a function of the whole person's ability to appropriately adapt to ever changing internal and external environments.

Any attempt to bring the whole person to a new level of integration is a function of the whole person's ability to appropriately adapt to any intervention or series of interventions. If the whole person is unable to adapt to any intervention or series of interventions, then 1) the soma will revert to its pre-intervention state of disorder, dysfunction, or disease, 2) strain and disorder will be driven elsewhere in the system, or 3) both events will occur.

SUPPORT PRINCIPLE

Integration is a function of available support.

The Support Principle is a specific application of the Adaptability Principle. It rests on the recognition that spacetime, environment, and gravity are equiprimordial relationships within which the whole person participates and to which the whole person is related. The organization and integration of our psychobiological orthotropic nature is a function of not only how the whole is related to itself but also how the whole is related to and appropriates gravity and the environment. The extent to which higher levels of order are possible is the extent to which the whole person finds support within the limitations of spacetime, gravity, and the environment.

One of Rolf's most important contributions to somatic therapy was the recognition that the ever present force of gravity has a profound effect on how the body accommodates to all somatic imbalance and all injury. She also realized that support in gravity is critical to any attempt to correct or enhance the structure and functioning of the body. If a practitioner attempts to correct facet restrictions in the spine, for example, and the legs do not properly support the upper body, then the intervention will drive the strain elsewhere, sometimes worsening other dysfunctional areas, and/or the spine will revert to its dysfunctional state.

The Support Principle is Rolf's gravity principle. It is more specific than the adaptability principle because it emphasizes how the body adapts or fails to adapt to the ever present influence of gravity.

CONTINUITY PRINCIPLE

Integration is a function of appropriate continuity

Like the Support Principle, *the Continuity Principle is a specific application of the Adaptability Principle.* Loss of appropriate continuity compromises healthy functioning and normal coordinated activity. Functional integrity, configural identity, systemic coherence, and hierarchical organization manifest in appropriate continuity throughout every level of the whole person as described by the five categories of assessment. All somas, since they are

alive, exhibit some degree of continuity. A soma's degree of continuity and coherence is a function of its freedom from dysfunction and hence a function of its freedom to orthotropically appropriate gravity by organizing around its midline.

PALINTONIC PRINCIPLE

Integration is a function of palintonic harmony.

Palintonicity appears with the manifestation of orthogonal relationships (e.g., horizontal and vertical lines/planes intersecting at right angles in the X, Y, and Z axis or the sagittal, coronal, and transverse planes). The appearance of horizontals at the joints and normal coordinated movement arise together. As a person approaches somatic integration, palintonic harmony begins to appear throughout the whole person in relation to the environment as described by the five categories of assessment.

The success of any intervention or series of interventions is a function of appropriate spatial relationships—for example, back/front, side/side, top/bottom, inside/outside, and orthogonal balance. Palintonic harmony describes the spatial, somatic geometry of order, which is so apparent as a body approaches somatic integration. It expresses the unity of opposition that arises among all structures, spaces, volumes, and planes of an integrated soma as it moves through space. It describes the unity of opposition or balanced tension that exists when back/front, inside/outside, side/side, and up/down relationships approach balance with respect to each other and gravity. Palintonic harmony also describes the unity of opposition that arises among all aspects of the whole person as described by the five categories as the whole person approaches integration. *The extent to which any of these relationships is established is a function of how well all of them are established in relation to gravity and the environment.*

Palintonos is a Greek word. It was used by the great pre-Socratic philosopher Heraclitus (c. 500 BCE) in the following aphorism: "They do not apprehend how in differing with itself it is brought to agree with itself:

palintonic harmony, like that of the bow and the lyre." *Palintonos* literally means "stretched back and forth." It means, therefore, the unity of opposition or balanced tension.

CLOSURE PRINCIPLE

Every intervention, session, or series of sessions has a beginning, middle, and end.

Closure is achieved when the whole person, in accordance with his or her changing and unchanging limitations, can sustain the changes introduced without further intervention. In order to optimize and stabilize the results of any intervention, session, or series of sessions, the newly emerging pattern of order must be brought to its highest level of integration.

Even though there are patients who seem to require therapy to the end of their life, every therapeutic intervention, every session, and every series of sessions have varying degrees of closure. "More of the same" must eventually give way to another approach (either within one's therapeutic system or to some other system), to ceasing therapy for a period of time, or finally to ceasing therapy altogether.

An Example of Principle-Centered Decision Making

In order to answer the three questions of therapy ("What do I do first, next, and when am I finished?") in accordance with the principles of intervention a thorough examination of the patient is required. Within the context of one's system of intervention, the examination should attempt to locate all the patient's order-thwarters within the five categories of assessment and determine which levels of the whole require enhancement. Before every session or intervention the holistic practitioner should ask:

Which aspects of the whole person—as represented in the five categories of assessment and if properly normalized, organized, and enhanced—will bring the highest level of integration to the whole?

Further evaluation must then determine whether the body can adapt to, support, or has enough continuity and palintonic balance to appropriately respond to and maintain the proposed intervention strategies and tactics. If there is not sufficient adaptability, support, continuity, or palintonicity present, then each one of these conditions of hierarchical order must be established in a sequence of interventions that will both normalize somatic dysfunction and promote the highest level of integration possible for each particular client.

Let us consider a simplified example. Suppose our initial examination of a client with back pain uncovers a complicated array of myofascial and articular fixations in the lumbar and pelvic regions with no radiculopathy. If all the principles are reasonably fulfilled within the client's body, then we can precede directly to treating the areas of myofascial and articular strain. However, such a case is exceedingly rare to the point of being non-existent. Typically, most bodies display a complicated array of imbalances and injuries accompanied by many characteristic and not so characteristic patterns of compensation that run through the entire soma.

Examination most often reveals that some principles are better fulfilled than others and that most bodies require a number of sessions before normalization and enhancement begin to appear. If our imagined client is like most people, back pain is embedded in a structure that displays varying degrees of palintonic imbalance, loss of adaptability, and lack of support and continuity. For example, a patient with an imbalance between the agonist and antagonist muscle groups of the flexors and extensors of the neck and lower back and pelvis displays one kind of palintonic imbalance. Often this lack of back/front balance is displayed by hyper-erect bodies that arch backward when seen from the side. Lack of extensor/flexor balance can also be present in inside/outside imbalance when, for example, the rectus abdominis is stronger than the psoas. Lack of support is often found in bodies where one leg is more valgus and more externally rotated than the other or when the feet are too pronated to support repositioning of a tilted pelvis. Loss of adaptability can be found throughout most bodies. For most people the upper thoracic spine, ribs, shoulder girdle, and sometimes the

arms and cranium display a complicated array of myofascial and articular fixations that will not adapt to significant changes in the lower spine and pelvis. For a lesser number of other people the upper quadrant is flexible enough to adapt, but the lower quadrant is so severely restricted that any attempt to introduce change in the pelvic and lumbar region rebounds against fixations in the lower legs and feet even though the legs are providing proper support.

In the initial examination, and continually during the application of techniques, the holistic practitioner must determine how well each principle is fulfilled, which ones are better fulfilled than others, and in what order each one should be fulfilled. If the examination reveals that our client cannot adapt because he or she has fixations in the cranium, cervicals, and in the celomic sacs, or that the body cannot support any of our proposed strategies, or that there are significant back/front imbalances, we must decide the best areas in which to begin our work. Beginning with work on the legs and feet in such a case is usually a mistake. Since work in the lower quadrant inevitably releases upward through the body, two problems would likely arise from such a strategy: 1) the upper quadrant fixations would become more severe by working in the feet and legs, and 2) the upper fixations would keep the lower quadrant from holding its changes. Any attempt to affect back/front balance would also run up against the same sort of difficulties. So the first interventions are most often aimed at the inability of the upper quadrant to adapt. In fact, because of the complicated array of strains that often appear in the thorax, working on the feet and lower legs, as the second session of the formulistic ten series dictates, can be premature.

If a sufficient number of adaptability issues can be handled in the first session, then the next session could deal with either the support or palintonic issues—depending on which one, if properly manipulated, will most benefit the whole person. Depending on the client's body, support may be a more important issue than the palintonic imbalances. Sometimes establishing proper support eases palintonic problems, and sometimes easing palintonic issues creates better support. If the client has excessive spinal

curvature, experience has shown that some attention must be devoted to creating adaptability throughout the body especially in the extremities, as well as creating support and back/front balance before such a spine can be properly addressed.

On some occasions we may think that we are ready to address the fixations (order-thwarters) in the lumbar and pelvic regions only to discover that the client was sexually abused as a child and has not resolved these abuse issues. Such a discovery means that any attempt to work on the pelvis will more than likely be met with unconscious resistance. Since the client would be incapable of adapting to our strategy, we would have to postpone the pelvic work until our client had sufficiently resolved these problems, either through our work or the interventions of another therapist. Sometimes our attempts to establish support or palintonic balance create unanticipated strain patterns in other areas of the body or disrupt previously achieved levels of organization. Under such circumstances we must attempt to reestablish them again or in new ways.

If after a number of sessions we determine to the best of our ability that the principles have been sufficiently fulfilled, we can then proceed to work on the pelvis and lumbar region and reasonably expect the client to enjoy some longer-lasting relief from pain. Relieving the pain, however, is not the same as resolving the client's somatic dysfunction or enhancing function through structural integration. More work is usually required in order to achieve the important holistic goal of enhancing the structure and functioning of the whole person. But we should not forget that the goal of structural integration will always be limited by unresolved pain and dysfunction.

Again the holistic practitioner asks, "Which aspects of the whole person if normalized and enhanced will most benefit the organization and functioning of the whole?" Once the area is decided upon by proper examination and evaluation, the practitioner then asks whether the client's body has sufficient adaptability, support, or palintonic balance to maintain the proposed changes and remain stable afterward. If the answer is no to any of the principle questions, the condition specified by the principle in

question must be established. As the conditions specified by each principle are established or determined to already be established, the practitioner then proceeds toward establishing the next highest level of order and functioning that the client can handle until the body has achieved the highest level it can. When the whole person has achieved the highest level of integration possible within the constraints of his or her changing and unchanging limitations, more therapy becomes a waste of time and closure is achieved. Therapy ceases and the client's body continues to change and evolve on its own until it meets the next level or levels of fixation that interfere with its development.

Whether a client comes for the relief of pain or for structural integration and the enhancement of function, the decision-making process is the same. Obviously the process can be far more complicated than the above examples demonstrate, often ranging over many more assessment types than the ones discussed. The strategies and tactics as well as the order and depth in which the principles are fulfilled vary from person to person and from session to session depending upon the level and depth of the individual clients' fixations across the five categories of assessment. Strategies and tactics are created and abandoned to suit the needs of each client, but the principles of intervention remain the guiding light in terms of which all of our clinical decisions are made.

Variation in Ida Rolf's 'Recipe'

Thomas Myers, Advanced Certified Rolfer®

Thomas Myers is a Rolfer® and the author of the revolutionary Anatomy Trains Myofascial Meridians book and video series. Tom studied directly with Dr Ida Rolf, Moshe Feldenkrais, and Buckminster Fuller, and has practiced integrative bodywork in a variety of cultural and clinical settings for nearly 30 years. Former Chair of the Rolf Institute's Anatomy Faculty, Tom currently directs Kinesis, Inc, which runs a variety of courses, including professional certification in Structural Integration. Tom is a frequent contributor to trade magazines and journals, and he lives, writes, and sails on the coast of Maine.

Abstract

After setting an historical context for examination of the Structural Integration 'Recipe', this article sets forth the basic goals and territory of each session, and compares variations among the various Structural Integration schools' teachings on the recipe.

Context

While this author eagerly looks forward to reading papers within these pages on the upper reaches of Structural Integration (SI) theory and practice, he has, for the last dozen years, concerned himself almost entirely with the entry-level end of SI work: What are sensible prerequisites for entering into, and graduating from, SI training?

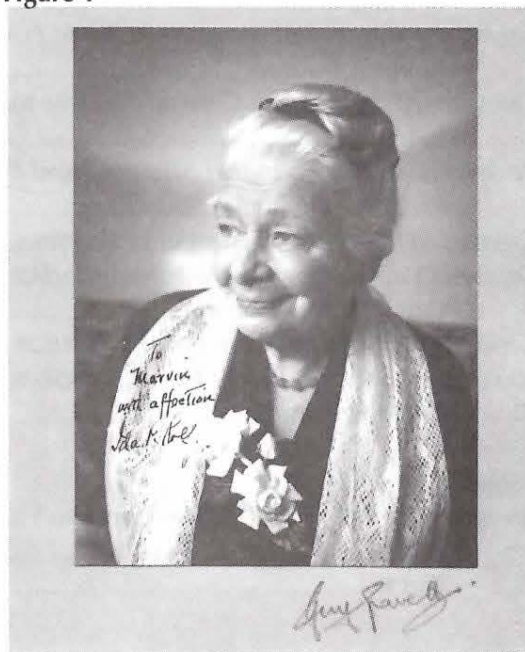
Among the several skills, diverse knowledge, and refined sensitivities we might like to *desire* of our graduating practitioners, which ones should we *require*, in order that they successfully mount the road to a fulfilling practice for themselves, and one of true service to their clientele?

Ongoing experimentation with these questions is occurring on the ground, as evidenced by the many SI programs available with differing entrance requirements, hours of training, and emphases within their curricula, as well as varying connections to the lineage of Dr. Ida Rolf. In addition to the Rolf Institute®, these include the Guild for Structural Integration (Hutchins and Melchior), Hellerwork (Heller), Soma (Williams, now Bolesky and Stone), CORE (Kousaleos and Genna), IPSB (Maupin), Zen Therapy (Leigh), ISI (Latz), Postural Integration (Painter), the Utah School (Cohen and Crow), KMI (Myers), Institute for Structural Medicine (Bajelis), Guild for Therapeutic Bodywork (Mintz), Mana (Peterson and Grey) as well as personal training from

Al Drucker, Stanley Rosenberg, Michael Shea, Don McCann, Michael Lee, Stuart Bell, and others past and present.

At further remove, we have such programs as Aston Patterning (Aston) and the Lomi School (Hall), with some basis in Rolf's ideas, but no longer based on her model. Still others have taken Rolf's principles and put them to work on specific issues (e.g. Dalton and Rossiter). We have seen SI trainings with a more spiritual intent or a more osteopathic slant, and trainings with more emphasis on psychosomatic

Figure 1



Dr. Ida Rolf, Ph.D., 1896-1979. Founder and pioneer of Structural Integration.

material, movement orientation, clinical bias, or preservationist fervor.

Ida Rolf's work clearly has broad enough shoulders to support them all. But as with all living beings, a membrane is ultimately necessary to define within from without – how far can we go down the road toward any of these specializations and still be within the domain of Structural Integration? Are certain numbers of hours necessary to gain the minimum rudiments? What constitutes the core curriculum, *sine qua non*? What are the constitutive rules of SI?¹ Since no one has yet answered these questions affirmatively, the world of SI remains without an outer membrane, and suffers accordingly.

The Rolf Institute® formed this membrane at its inception in the early 70's, keeping all the individual SI practitioners under one roof, and defining 'membership' within the organism. But since the mitotic division into separate schools began – historically once Hellerwork and Soma were established, so by 1978 at the latest – the organizing units of the SI world became the different schools. As we see in a developing organism, once its cells become numerous enough, a 'metamembrane' is necessary to hold them in productive relationship, such as when the reticular precursor to the facial net forms around the cells. SI as a profession is at that level of development, and is feeling the need for the metamembrane of an umbrella organization to formulate, work out, and administer to these questions.

We all have experience referring clients to other SI practitioners, either within or beyond our own school affiliations, only to hear later that the practitioner worked with impossible pain, or barely touched the client, or (this actually happened) placed an amethyst in the client's navel, prayed over them

for an hour and called it a fifth session. While most would agree that this last falls outside the membrane of acceptable SI practice, there are a hundred more nuanced issues that can only be worked out through sustained face-to-face dialogue among a large number of practitioners from all the schools.²

Figure 3



The logo for the International Association of Structural Integrators, formed 2003.

The formation of the International Association of Structural Integrators (IASI) to gather the graduates of these diverse programs under one umbrella, a so-far embryonic expression of this metamembrane idea, has further stimulated consideration of what constitutes appropriate skill sets for new graduates. In practice and in the classroom, we can generate a short list:

- 1) the ability to see and describe postural and functional patterns and
- 2) to convert those observations into a coherent session strategy of structural work.

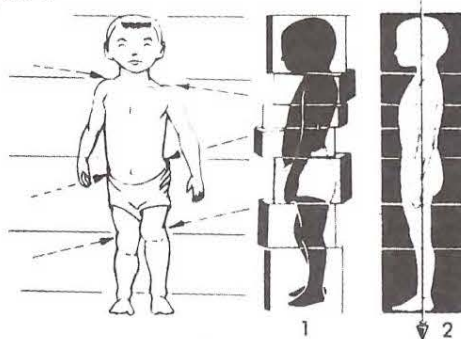
These compete with the more 'Mom and apple pie' requirements for

- 3) a sufficient library of fascial and myofascial techniques,
- 4) a wide vocabulary of hands-on sensitivity and actual skills in applicator and body use,
- 5) fundamental anatomical and physiological knowledge of the locomotor system as well as basic pathology, and
- 6) the emotional and psychological maturity necessary to ethical professional practice.

Although various claims have been made for the wide scope and efficacy of the Structural Integration process in miraculously curing everything from bad digestion to autism, these are predominantly anecdotal since very little real research has been done on the method (Cottingham 1988a, Cottingham 1988b, Hunt 1977).

Like yoga, the Alexander Technique, and traditional manipulative osteopathy, Structural Integration explores the domain of 'Spatial Medicine'³ – what can be improved through changing spatial relationships within the body? The scope of inquiry

Figure 2



© 1958 Ida P. Rolf

Ida Rolf's original logo, circa 1958. She first called her work 'Postural Release,' then 'Structural Dynamics,' and finally 'Structural Integration.'

within the world of SI is thus very wide, considering issues of evolution and maturational development, authentic self-expression, the relationship between spatial arrangement and physiology, and of course the complex details of biomechanics (Rolf 1977).

When reduced to its actual scope of practice, however, SI as originated by Dr. Rolf is designed quite simply to work progressively and systematically with the standing tonus of the parietal fascial planes and myofasciae in order to reduce the rotational moment of inertia of the body. In simpler terms, SI seeks to organize the body closely around the vertical line of gravity and lengthen it along that line.

The Centrality of 'The Recipe'

Most would agree, additionally, that a necessary part of the knowledge base unique to SI is a working familiarity with 'The Recipe', as Ida Rolf called the outline description of her basic protocol. This description, we argue here, is the fundamental *techné*⁴ of SI. When a group of practitioners are gathered in discussion around a difficult client or an adult beverage, a working knowledge of the recipe is the closest thing we have to a journeyman's union card of belonging to the Structural Integration community.

Now it could be argued, on the one hand, that the actual strokes or moves constitute the gritty fundamentals of SI. In fact, however, we have seen a good deal of migration of manual techniques in both directions. Individual techniques from the SI library have been appropriated by the massage and physiotherapy communities (without them turning into 'rolfers', however much they may wish it so).⁵ Conversely, multiple techniques have been imported from osteopathy and other disciplines into the SI lexicon without altering our fundamental approach of SI.

"There's nothing new under the sun of manipulation," said Ida Rolf, and most of us have had the experience of making up new techniques or appropriating other modalities without feeling that we have strayed outside the scope of practice of SI. Thus the argument that the fundamental distinction between SI and other modalities at the level of *techné* is indeed this 'recipe', not individual strokes or even the collected library of manual and movement techniques.

"But SI is not simply the blind application of a protocol," I hear some readers protesting, "There's a fundamental way of seeing and feeling and unraveling pattern that is the essence of SI work. Resolving these somatic strain patterns may unfold through

the recipe, or may require more creative 'out-of-the-box' thinking. Ida Rolf invented the recipe only as a teaching tool, one that she herself rarely followed strictly in practice." Agreed. We can differ (and the various schools clearly have) over whether we see Ida Rolf's recipe as a sacrosanct gift to be 'lock-boxed' and altered only at our peril, or whether we see it as more of a simple 'leg up' for the beginning practitioner to use on the way to more creative, non-formulaic practice.⁶

Thus, on the other end of the spectrum, it can be argued that the fundamental distinction of SI is found neither in technique nor at the level of the recipe, but in attitude and principles. Moving 'up' the epistemological ladder from the recipe, brave attempts have been made to derive SI from a set of principles inherent in Ida's writings, teachings, and the work itself. This exploration should and will continue, in order to build a theoretical base on which to build more complex SI practice. On the ground in basic training, however, the calculus of derivation from principle down to 'yikes, what do I do next?' is not always sufficiently clear to beginning students, who can feel lost without a more concrete path to tread as they step into solo practice. Therefore the necessity remains for a clear exposition of the recipe, even if the intent is that it ultimately be transcended by mastery of SI principles.

But a 'clear exposition' – at least one that invites comparison, contrast, and useful dialogue – is exactly what has been lacking. Ida Rolf's book is almost completely silent, in terms of detail or even of the book's organization, on the order of her protocol.⁷ Her pedagogic idea was clearly that the method should be absorbed through feeling, observation, and experience, not by means of a text. Most students

Figure 4

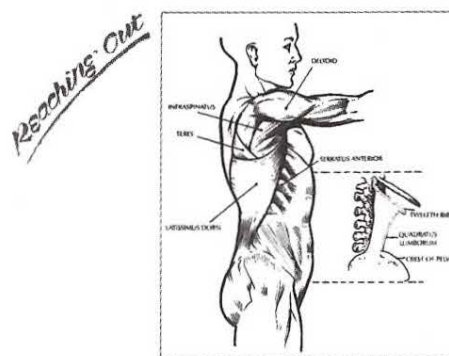


Figure 1 - The muscles of the side. The twelfth rib and the quadratus lumborum are enlarged.

Figure from the Hellerwork Client Handbook, for Session 3.

in her classes, however, and in subsequent classes with various schools, have had the experience of surreptitiously passing someone's collected notes on the recipe around the class – and indeed the recipe chart below is founded partially on several of these crib notes still in the author's files, dusty from many years of repose.

Aside from these oft-photocopied 'Cliff notes' from class, Ida Rolf's recipe was first exposed in print (as far as this author has been able to discern) by D. & J. Lawson-Wood, in their (sadly out-of-print) book *Dynamic Posture and Progressive Vitality*, published circa 1950. This book detailed the recipe, coupled with a protocol of acupressure points, which was the Lawson-Woods' modality before training with Ida Rolf. Other 'spin-off' schools of SI have produced manuals with various levels of technical explanation, as in Edward Maupin's *Structural Metaphor*, 1986 (currently being republished). Briefer, less technical, expositions of the recipe have appeared in Will Schutz's book *Evy*, which is more psychologically oriented, and in pamphlets designed for SI clients such as *Rolfing*, by Rolfer® Jason Mixter, and in the Hellerwork Client Handbook, by Joseph Heller (both undated).

While Ida Rolf's motives were sterling in keeping her students' shoulders to the wheel of experience (and not letting them go to sleep thinking that they had the recipe – and thus the method – safely in written form), it is questionable whether this strategy still serves her heirs some twenty years after her passing. The motivation in keeping the recipe under wraps has slipped from keeping students on their toes to preventing this bit of proprietary knowledge from escaping the membrane of trained SI practitioners. The result of this fear-based motivation is to impede free discussion among the thousands of graduates of the schools listed above.

In the author's experience of offering continuing education for SI graduates, subtle additions and elisions create differences among the recipes offered at these various schools. Most of these differences are probably insignificant, but some are substantive and would benefit by having constructive feedback from and dialogue with other diverse teachers. Students receive these versions of the recipe as gospel, and are not often in a position to be objectively critical in assessing what they are being taught. The advent of IASI and publication of this yearbook finally give us the opportunity for constructive dialogue around these issues.

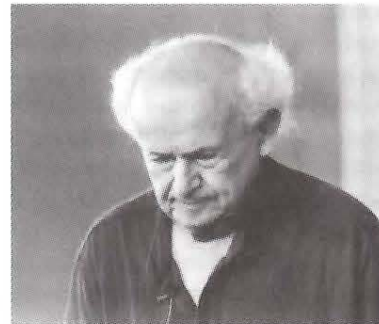
In short, 1) the recipe, not the techniques themselves, distinguishes SI from other forms of manual intervention / somatic education, and 2) the recipe is (at the very least) the major tool for inducting the

beginning practitioner into a reasonable practice of SI in the short time currently practical for training, thus 3) it is time to put the recipe on the table and give it a good long look from various angles.

History of The Recipe

Dr Rolf developed the recipe between 1925 and 1945. She began working by placing clients in the yoga asanas, and stretching the client's tissues to help them attain the depths of the posture. After her exposure and training in osteopathy, she worked for many years on the floor with a mat. During the late 1950's, her work then evolved to the treatment table. Aside from yoga and osteopathy, traces can be found in her work of principles from the Alexander Technique, Feldenkrais, homoeopathy, Korysybski's General Semantics, and body-centered psychotherapy such as that pioneered by Wilhelm Reich.

Figure 5



Moshe Feldenkrais, master of movement education, friend of and influence on Ida Rolf.

While Rolf openly acknowledged the influence of renegade osteopath Amy Cochran on her structural maintenance movement exercises, and the influence of Alexander teachers Gerald and Jeanette Lee (Lee 1946) in her thinking about 'lines', the source material for the first seven sessions of her recipe is not clear.

Although the process of SI could almost be considered 'alchemical' (and Ida Rolf certainly had contact with the work of George Gurdjieff and other teachers of spirit), neither have I found anything in the world of esoterica that could be called a source for the recipe's progression. In view of Ida Rolf's insatiable curiosity and energetic pursuit of all things somatic, it seems like a case of "stealing from one is plagiarism, while stealing from a hundred is original research." The progression of the recipe, in the absence of any evidence to the contrary, seems to be an original piece of work on the part of Ida Rolf.

Since Dr. Rolf's death in 1979, the various schools, under the guidance of charismatic and

inventive leaders, have modified the recipe, slightly or substantially, according to their own lights and memory. More of the history of Ida Rolf and her development can be found in Feitis 1978, and in *Ida Rolf Remembered*.

We cannot leave the subject of the person of Ida Rolf without noting that she was a large person in a small body. Lovable and exasperating, attentive and dismissive, astoundingly fierce and equally gentle by turns, with an incredible breadth of knowledge, Ida Rolf evoked strong emotions in her students, clients, colleagues, and detractors. I doubt we will see her kind again soon.

The Recipe: Global Shape-Shifting

The overall metaphor of the recipe points to a couple of general guiding concepts within it. The first of these is that the recipe defines an arc of work, a trajectory that has a beginning, a middle, and an end. This in itself separates SI from many other therapies, manual or psychological, which are open-ended. The recipe implies that the practitioner and the client are engaged in a project with a finite timeline. Dr. Rolf was quite firm that Structural Integration worked best in brief periods of intensive work, followed by longer periods of absorption before further work was undertaken.

A corollary of this idea is that the process of progressing through the recipe is one that makes use of momentum, one session building on another to create a synergetic effect for the entire series.

Secondly, we can say that the recipe's progression is from superficial structures toward deeper structures, followed by an integration of the two. In her 10-session series, the first three are generally considered to address superficial myofasciae and fascial planes ('sleeve'), the middle four address more 'core'⁸ issues and structures, and the final three ses-

sions turn toward integrating previous work via the appendicular girdles and the axial spine.

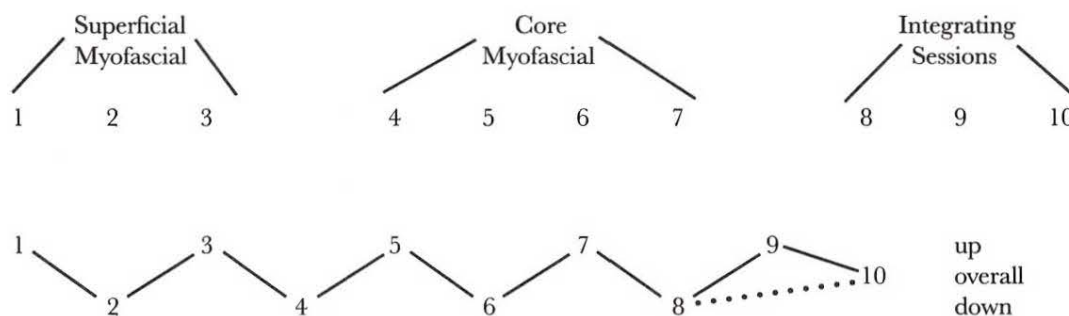
The recipe also demonstrates a progression from differentiation toward integration. The initial six sessions are designed to differentiate, both fascially and in the body image, the various structures in the locomotor body, to prepare the body for session 7, which marks the fulcrum between the orientation toward differentiation and the goal of integration. The final sessions are not designed to 'open new territory', but rather to build harmony and alignment among those structures opened and freed in the first seven. Using a poetic image, the first seven sessions plow the field; the last three sow the seeds of new possibility.

There is also a clear alternation in the 10-series between orientation to the upper body and the lower body. The first session is more oriented to the upper body, the second to the lower body, and so on. This switching of focus allows a 'ratcheting' effect – build a foundation, build upon it, go back to the foundation for the next piece, build upon it above, etc. It also has the practical effect of allowing successive sessions to be placed more closely together – one half can rest, absorb, and integrate while the other gets work. This aspect is especially advantageous to traveling practitioners, which describes Ida Rolf for many years of her practice and teaching career.

'Freedom,' said one of this author's favorite sages, 'is resting easy in the harness.'⁹ While some find the recipe an annoying restriction to be shed as soon as autonomy is gained, others, myself included, find new richness in its progression at each new level of practice. A comparison could be to chess, where the simple rules remain the same, but the permutations deepen and complexify, allowing for artistic and intuitional nuance. Like the Tarot, the recipe can be read at many levels, from the lowest as a 'how-to' to a

Figure 6

Two diagrammatic representations of the recipe's progression.



journey of the spirit. Without deifying the recipe or its creator, and certainly not intending to denigrate other non-recipe approaches to SI, this author merely wishes to convey that a rich life in practice can be obtained within the generous confines of the recipe considered as a gentle guide to progressive goals.

The Recipe in Summary Form:

Session 1:

We begin by examining the first session in detail, to get the flavor of the multiple levels in which the recipe can be appreciated and worked, from grand intentions down the ladder to a program of strokes. The rest of the sessions are examined only at the level of goals and territory.

Nota Bene: One essential area not covered in this article is the very important findings of prior visual and palpatory assessment, and questions that should be asked before a session is undertaken. These questions are vital to good SI session strategy. These queries often determine where one starts, and directions one proceeds in addressing the individual patterning of the client. Their consideration, however, is so complex as to require too much explanatory space for inclusion here. Therefore, the following discussion confines itself to the declarative, and leaves the equally important interrogative for another paper or in-class training.

Intent:

At the most abstract level, it can be said that the intention of the first session is that the client have a successful experience being introduced to structural work. In my Advanced Training with Dr Rolf in 1978, beginning our second day with the first session, she asked, "What is the goal of the first session?" We answered with all the reasoning given below (and with the very reasons she had herself asserted the day before) about superficial fascia ("No"), and freeing the breathing ("No"), or lifting the rib cage off the pelvis ("No!") – until we were all perplexed. "The goal of the first session," she finally intoned, finger raised, "is for the client to have a success."

Principle:

At the level of principle, the design of the session is chiefly to increase adaptability by opening the breathing, and to decompress some of the major radial restrictions on the pelvis, rib cage, and neck. The session employs principles of support in attempting the initial balancing of the pelvis on the legs, the rib cage over the pelvis, and the shoulders over the rib cage. And finally the session engages the principle of palintonicity (even tone) by easing the sleeve and the

lines of transmission of the surface myofascia, chiefly in the front of the trunk. (Maitland 1992)

Function:

On the functional level, the first session opens the breathing and creates the first set of changes in the functional stance of the major body weights in relation to each other and gravity. This may be reflected in an appreciably different gait pattern. It may also be reflected in a greater connection with the sense of internal space and kinesthesia, feelings which are often a surprise discovery for the new client. One also hopes for an increase in functional adaptability within the organism, to accommodate the changes planned for later in the series.

Goals:

If we move down to the goal level, the first session recipe invites us to free the shoulders from the rib cage, loosen superficial breathing restrictions within the rib cage for a larger excursion in breathing, differentiate the rib cage from the pelvis, and the pelvis from the femurs. The end of the session invites initial freeing of the neck's superficial sleeve, and the initial work on the erectors and lumbo-sacral fasciae.

Strategy:

The strategy – the specific order and techniques employed to reach each goal – is so specific to each client that it can hardly be nailed down in generalities. The default strategy for the first session would begin with the chest, ribs, and sub-costal margin, proceed to the shoulders, the iliac crest and hip region, the hamstrings, the neck, and the spine. Emphasis, however, and even this general order, would submit itself to the individual needs and pattern of the client as discerned by the practitioner.

The strategy – how the goals are to be implemented within the territory – so depends on the answers to queries concerning history, movement, and palpatory findings; queries which we have deliberately left out of this paper in order to focus on the generalized recipe.

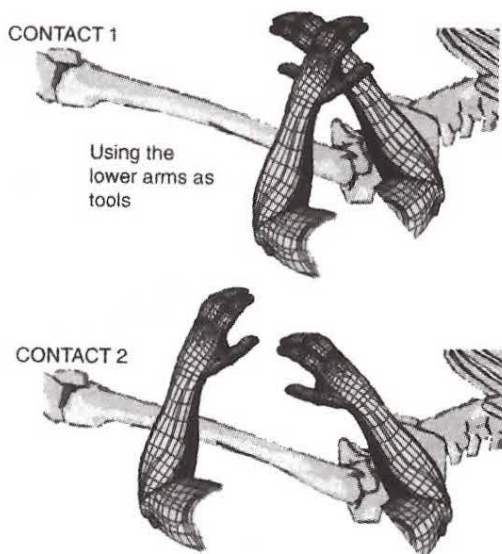
Territory:

One step down takes us to the territory level, which must be understood as the territories *likely* (but not certain) to lead us through the strategy toward the structural goals in support of the functional, principle and intentional goals. In the first session, this territory, in the 'classic'¹⁰ recipe, includes:

Tissues in the thoracic laminar groove, pectoral fascia, claviopectoral fascia (including pecto-

ralis minor and subclavius),
 sternal fascia and the sternochondral joints,
 the lower edge of the sub-costal arch,
 the rim of the iliac crest,
 the greater trochanter and the superficial abductors,
 the iliotibial tract,
 the superficial hamstrings,
 the superficial fascia of the neck (including the
 sternocephoidomastoid and the trapezius), and the
 superficial erector and lumbosacral fasciae.

Figure 7



An interesting depiction of an Iliotibial tract release, used with permission from A Dynamic Relation to Gravity, Ed Maupin, 2004 (currently in production).

Sequence:

Reduced to a series of specific moves (and the author puts this reduction forward only reluctantly, as this level of the recipe is necessarily rather fixed and less open to the individuality presented by each client), the first session could be (and has been) generally delineated as follows:

Free anterior breathing

Move and release tissue up along the surface of the sternum and sternochondral joints
 Bring tissues of the superficial laminar groove, mid-thoracic level down and laterally
 Move tissue medially and free it along both sides of the costal arch
 Lift and loosen the superficial tissue of the pectoral fascia at the level of the fifth rib
 Search out and free individual intercostal restrictions in the available anterolateral ribs

Differentiate shoulders from ribs

Move and release sub-clavicular tissue laterally
 Move and release the pectoralis major fascia laterally
 Move and release pectoralis minor and clavipectoral fascia superiorly
 Release the anterior edge of the deltoid laterally
 If indicated, work distally on the medial intermuscular septum and forearm flexors

Differentiate pelvis from rib cage and femurs

Clean off built-up tissue from iliac crest, from ASIS to PSIS
 Spread tissue laterally from around greater trochanter
 Release abductor tissues inferiorly, along grain of muscle or with cross-fiber
 'Iron out' the iliotibial tract from ilium to tibia, repeat as necessary
 Lengthen superficial hamstring fascia superiorly, especially around ischial tuberosities

Integrative 'endgame'

Bring superficial neck fascia and sternocleidomastoid fascia posteriorly
 Lengthen anterior edge of trapezius fascia back and down
 Lengthen and release superficial erector fascia from T1 to S1 in flexion
 Ease any residual tension in neck
 Bring lumbosacral fascia inferior, and lengthen it
 Settle sacrum as necessary

This protocol – while some will necessarily disagree on the details – was more or less what was taught in the early Rolf classes, gathered in notes passed among the students behind Rolf's back. Once again, this stroke-by-stroke description is included, even though it contains about as much artistry as a child's 'paint-by-numbers' kit, 1) because all responsible beginning students grasp for this kind of reassuring specificity when faced with the awesome responsibility of mucking about in people's structure in near-utter ignorance (I speak especially for myself as I stepped out of training in 1976, and I feel it occasionally now as well), and 2) because some of the SI programs have taught the recipe in just this way, as a laundry list sequence of specific techniques.

With the proviso that a parallel list could be made for each of the original seven sessions of Dr. Rolf's series, the rest of these sessions are presented at the level of goals, general strategy, and territory, with variations presented in the chart at the end.

Ida Rolf's half-joking summary of the recipe was: "Up the front, down the back, and horizontalize the pelvis".

Session goals:

Superficial 'sleeve sessions':

Session 1: Differentiate shoulders from ribs
Free rib and sternal restrictions to breathing
Differentiate pelvis from femur
Shift pelvis toward horizontal
Balancing work¹¹

Session 2: Ground client through feet
Establish bilateral functional support for the spine
Balance arches
Open movement and adaptation in feet
Lengthen the back erector tissues in eccentric forward motion
Balancing work

Session 3: Lift and lengthen the lateral line from neck to knee (or shoulder to hip)
Balance the A-P relationship of body's segments
Work for depth in the torso and breathing
Relate the ipsilateral girdles
Free arms from ribs via axillary work
Begin 'core' work via lengthening quadratus lumborum (& scalenes)
Balancing work

'Core' sessions:

Session 4: Deeper grounding through inner line of leg
Open those structures attaching to the pelvis from below
'Clean' the ramus to differentiate legs from pelvic floor
Lengthen inner line of leg, to initiate length from perineum to cranium
Derotate legs
Organize and normalize pelvic floor
Initial opening of femoral triangle and iliopsoas
Balancing work, emphasize erector work and TLJ

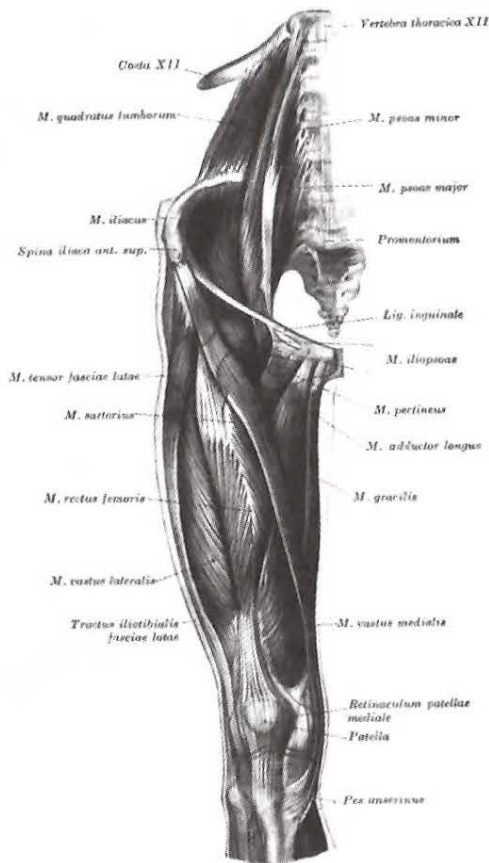
Session 5: Continue core opening in lower trunk – sessions 4 & 5 are linked
Open deeper belly tissues, including umbilicus
Open those structures attaching to the pelvis from the front
Improve psoas / rectus balance
Allow legs to work from TLJ (LDH)
Balance lumbar – usually bringing them posteriorly
Work more deeply and thoroughly with the iliopsoas and fasciae
Balancing work

Figure 8



This fellow could benefit from the original Rolf formula — "Up the front, down the back, horizontalize the pelvis."

Figure 9



The front of the hip is a crucial and uniquely human piece of anatomy and biomechanics which occupies the SI practitioner for several sessions in the middle of the series.

- Session 6:
- Free the sacrum and sacral movement (CSR, breathing, walking)
 - Open those structures attaching to the pelvis from the back
 - Relate sacrum to both spine and legs
 - Balance heel under sacrum/ deeper work with hamstrings
 - Free deep lateral rotators
 - Lengthen the spine
 - Horizontalize the pelvis
 - Balancing work

'Fulcrum' session:

- Session 7:
- Balance the head over the pelvis ('other end' of sacrum, session 6)
 - Integrate the neck with the thorax and the cranium

Open the top of visceral space / deep fasciae of neck (to complete 4 & 5)

Balance jaw muscles and jaw tracking on cranium

'Get their head on' – IPR

Balancing work, emphasis on sacral balance

Integrating sessions:¹²

- Session 8: Balance and integrate the work to date in the pelvic girdle and legs
- Session 9: Balance and integrate work in upper body, shoulder girdle, and arms
- Session 10: Move fascial planes toward balance, especially to establish horizontal balance around the joints

Session territories and key structures:

Session 1: As above: thoracic laminar groove, pectoral fascia, clavipectoral fascia (including pectoralis minor), sternal fascia and the sternochondral joints, the sub-costal arch, the iliac crest, the superficial abductors, the iliotibial tract, the superficial hamstrings, the superficial fascia of the neck (including the sternocleidomastoid and the trapezius, and the superficial erector and lumbosacral fasciae

Key structures: Sternum, sternal fascia, sub-costal arch

Session 2: Crural fascia around lower leg including extensor retinaculæ, plantar fasciae and associated muscles, intermuscular septa, fibularis (peroneal) muscles, tibialis anterior and toe extensors, gastrocnemius / soleus complex, ankle ligaments, erector spinae fasciae and muscles, multifidus myofasciae

Key structures: Tibialis-fibularis balance, plantar fascia, erector spinae

Session 3: Iliac crest, abductor muscles including TFL and gluteus maximus, iliotibial tract, lateral abdominal obliques, lateral intercostal muscles, serratus anterior, latissimus dorsi, teres major, rotator cuff muscles, deltoid, trapezius, quadratus lumborum, scalenes

Key structures: Quadratus lumborum, 12th rib

Session 4: Inner arch and inner line of lower leg, adductor group and associated intermuscular septa, ischiopubic ramus, pelvic floor, pectineus, iliopsoas, femoral triangle

Key structures: Pelvic floor, adductors, ischiopubic ramus

Session 5: Quadriceps muscles, ASIS, AIIS, femoral triangle, rectus abdominis fasciae and muscle, umbilicus, peritoneal layer with transversus abdominis, sub-costal arch, iliopsoas

Key structures: Iliopsoas, umbilicus, lumbar

Session 6: Calcaneus and ankle ligaments, soleus / gastrocnemius complex, posterior knee tendons, hamstrings, sacrotuberous ligament, lateral rotators, including piriformis, obturator internus, and quadratus femoris, erector spinae and transversospinalis tissues, iliopsoas

Key structures: Sacrum, piriformis, hamstrings, calcaneus

Session 7: Superficial neck fasciae and muscles (SCM and trapezius), splenius capitis and cervicis, semispinalis capitis and cervicis, scalene myofasciae, levator scapulae, longus capitis and colli, sub-occipital muscles, epicranial fascia (scalp), masseter, medial and lateral pterygoids, temporalis, facial muscles, tongue and tongue anchors, palate, medial intra-nasal passages

Key structures: Sphenoid, palate, jaw muscles

Sessions 8, 9, & 10 are designed to bring together the elements addressed in the first seven. The 8th session brings this integration to the pelvic girdle and legs, the 9th to the rib cage and arms (though this order can occasionally be reversed when indicated). The 10th session addresses the spine for a final time, and emphasizes horizontality of the tissues at the level of each of the 'hinges' in legs and trunk.

The following chart presents an informal study of current variations among the recipe as taught by various current SI programs. It was created via discussion with both teachers and new graduates of each of the schools named, so that no entry relies on one person only. Appreciation is owed to many who took the time to talk their way through the recipe. Due to the wishes of some, the whole group will remain anonymous here, but the process does insure cross-checking on all items.

Given that there are far greater differences among practitioners than there are among schools, some will be of the opinion that their school is misrepresented on this detail or that. Such details can be corrected in future articles; the chart is nevertheless generally representative of recipe variation. It is provided to give some sense of the 'genetic drift' of Ida Rolf's recipe, over the two decades since her death, in some of the various schools devoted to her work.

Note: Chart on following page; footnotes and references on pages 16-17.

Session No.	(Classical) GSI	Rolf Institute	Heller	IPSB
	Session goals and territories as	Add: adaptability and support principles. Release held spots on bony prominences		Add: define four sides of armpit
1	outlined above		Same as classic	
	Session goals and territories as	Add: grounding and support principles	Add: quads, TFL, hamstrings; De-emphasize: peroneals and deep posterior compartment, only light work on back	
2	outlined above	Add: shoulder accessory muscles		Same as classic
	Session goals and territories as	Same as classic: Knee to ear along lateral coronal midline		Omit: scalenes
3	outlined above		Same as classic	
	Session goals and territories as			
4	outlined above	Same as classic	Same as classic	Same as classic
	Session goals and territories as			
5	outlined above	Add: visceral attachments	Same as classic	Same as classic
	Session goals and territories as		Add: quadratus lumborum	Add: pelvic ligaments
6	outlined above	Same as classic		
	Session goals and territories as			Add: seated arm integration work
7	outlined above	Same as classic	Add: front of ribcage	
	Session goals and territories as			
8	outlined above	Same as classic	Same as classic	Same as classic
	Session goals and territories as			
9	outlined above	Same as classic	Same as classic	Same as classic
	Session goals and territories as			
10	outlined above	Same as classic	Same as classic	Same as classic
			Closure and 'autonomy' session	
11				
Special additions, emphases Web address				'Expansional Balance'
	www.rolfguild.org	www.Rolf.org	www.Hellerwork.com	www.IPSB.edu

Soma	Core	Zen Therapy	KMI	
Add: intro to psoas, subscapularis	Emphasize: side lying, greater trochanter area Add: subscapularis	Emphasize: lengthen waistline	Superficial Front Line and Front Arm Lines	1
Add: iliacus and iliac fascia	Add: work above knee on quads, popliteal space De-emphasize erectors Include: lateral lower leg and lateral foot arch Emphasize: erectors, Add: temporal region, Add: initial psoas work	Emphasize: weight distribution in feet, drop and widen shoulders. Subtract: erectors Add: Cross fiber work on erectors, rocking each vertebrae	Superficial Back Line and Back Arm Lines	2
Add: work psoas without movement			Lateral Line and Arm Lines	3
			Spiral Line, Superficial fascial summary and rotational issues	4
Add: hamstrings and 'breath in the knees'	Add: hamstrings, deltoid and front of shoulder, facial work Procedure: Complete one side of quads / femoral triangle / psoas based on primary rotation then other side Add: lesser trochanter	Emphasize: widen pelvis	Deep Front Line - lower	5
Same as classic		Same as classic	Deep Front Line - central	6
Add: peroneals and anterior crural compartment	Add: coccygeal ligaments Add rhomboids, rotator cuff	Add: coccyx work on all fours	'Deep Back Line'	7
Add: psoas	Add: upper ribs and clavicle, shoulder work Add: work with sutures and cranium Add: deep bench work	Add: psoas	Deep Front and Deep Back Lines - upper	8
Same as classic	Add: work all four sides of the leg, knee tracking, seated psoas, Add: work deeply into the joints, Add: back to face gently	Same as classic	Pelvic girdle and legs line balance	9
Same as classic	Emphasize: psoas, Add: cross-crawl coordination	Same as classic	Torso lines balance	10
Arm and shoulder session	Add: Client helps design session - self reliance	Same as classic	Front and Back Arm Lines	11
Final balance session			All lines final balancing	12
Autogenic training, movement	45 degree angle of entry, honoring the intrinsic spiral, GET - Goals, Effects, Techniques	Zen meditation, Feldenkrais exercises, salt & soda baths	'Fascial Tensegrity'	
www.soma-institute.org	www.CoreInstitute.com	www.zentherapy.org	www.KMIonline.net	

Footnotes

¹ The author would like to emphasize from the outset that the views expressed in this article are his and his alone. While every attempt has been made to get the facts straight, there is much debate within the Structural Integration community as to which key concepts are primary, the exact intent of Ida Rolf when contradictory statements appear in the record, as well as to the actual application and scope of practice of SI. The author does not speak for the Rolf Institute®, or any other SI school or organization – simply as a friend and traveling observer of the world of SI. The author hopes for and welcomes other contributions to debatable issues from within and without the larger SI community.

² For instance, one of my KMI assistants just referred her father to a local SI practitioner (a Rolfer® as it happens, but the denomination is not important to the story). Her dad had presenting problems in his neck and shoulder, but was clearly suffering from lack of support in the feet and legs. The SI practitioner did five sessions without touching the client's legs. My assistant called, asking my opinion. In my days with Ida Rolf, this would constitute a breach of the rules of good SI practice. Today, I no longer know enough about what is being taught at the various schools to say whether this is acceptable in the SI world or not. It bears discussion: open, participatory, long-term discussion. In this case, the KMI practitioner called and talked to the Rolfer®, who apologized and returned to the recipe with very good results for the client.

³ We could contrast Spatial Medicine with Material (chemical) Medicine, a powerful line of inquiry followed by the allopathic and homeopathic fields, or with Temporal Medicine, explored by the field of Psychology, and sometimes by shamanistic healers.

⁴ This word, now applied primarily to mechanical devices or their electronic outgrowths, is actually worthy of revival in that it originally, in Greek, carried the meaning of art and craft and skill, all of which combine in the practice of Structural Integration.

⁵ In the inevitable fractures and resultant legal battles which followed Dr Rolf's death, the terms "Rolfing®" and "Rolfer®" became registered service marks of the Rolf Institute®, which is now one of perhaps a dozen schools of Structural Integration. Therefore, "Structural Integration", the last of several of Dr Rolf's original names for

her work, is becoming the generic designation for this type of manipulative approach. The word "rolfing" – a nickname for her work which came from her time in the Esalen Institute in California, and a name she herself disliked and only reluctantly accepted – remains, for the time being, the more publicly known term for this type of work.

⁶ Let me declare my position on this scale by saying that the recipe – expressed in terms of goals and key structures, as it is in this article – has been a harness in which I have rested very easily for 25+ years of practice. I am not of the opinion that one can blindly follow an "SI-by-numbers" listing of techniques and get anything other than piecemeal, hit-or-miss results – in other words, the recipe by itself is brilliant, but not magic. I am aware that people of good will can disagree, and that some find any notion of a recipe unnecessarily restrictive once they are well-launched into the work. The danger in abandoning the recipe, in my experience, is that all one's sessions tend to migrate toward looking the same. Being mindful of the recipe insures, at the very least, that the entire body, the structural pattern as a whole, is covered. "I don't always follow the recipe," says Ed Maupin, "but I always know where I am in relation to it."

⁷ This led one hack writer in the early days of Rolfing to cash in on the idea while knowing nothing about it. Gary Reid, who never trained with Ida Rolf and obviously used her book as his primary source, states that "Rolfing always begins with the feet." (Reid, G 1978, *The Complete Book of Rolfing*, Drake, NY)

⁸ Attempts at defining this slippery term 'core' occur elsewhere. We intend here to convey the myofascial structures on the medial aspect of the leg and muscles adjacent to the spine and ventral cavity, such as the psoas and diaphragm. With the advent of cranial concepts and visceral manipulation to the SI lexicon, a more expanded definition of core may be necessary. In my own school, the structures of the myofascial core are precisely defined as those structures included in the 'Deep Front Line' (Myers 2001).

⁹ Peter Melchior, in class, 1976

¹⁰ This term intends to convey the central areas of agreement, coupled with the author's and other long-term practitioners' memory of the recipe as taught in the 70's, and passed down. Variations are discussed below.

¹¹ 'Balancing work' at the end of each session goals

indicates a combination of neck work, seated or prone back work, and the so-called 'pelvic lift' procedure that integrates the session's work into the lumbar, sacrum, and lumbosacral fascia. Though different sessions and individual clients require various proportions of each of these elements, with differing intents within each element, it is very common for the SI session to end with a series of these calming and integrating moves.

- ¹² Much more can be added concerning these integrating sessions, but once again, as our main objective here concerns territory and the initial teaching of the sessions, we will leave these sessions wreathed in generalities.

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Fascia as an Auto-Regulatory System:

An Interview with Tom Myers (Part 1)

By Tom Myers, Certified Advanced Rolfer™ and Bruce Schonfeld, Certified Advanced Rolfer™, Rolf Movement® Practitioner

Editor's Note: Part 2 of this interview will appear in the December issue.

Bruce Schonfeld: What is the current research saying about fascia being an auto-regulatory system in the body?

Tom Myers: It may be hard for some to understand how little was published about fascia in the 1970s. There was a hard-to-follow un-illustrated description of fascial planes by Edward Singer. There was a wonderful, prescient article by George Snyder on the fascia. Andrew Taylor Still, who started osteopathy, had written an obscure and contradictory book called *Fasciae* in the late 1800s. Those were really it. Here was Ida saying the fascia was very important and we all thought we were working on fascia. We all had ideas we were spouting about biological fabric and consciousness but there was very little research about the properties of fascia. So, it was mostly magical thinking we were doing back in those days.

Dr. Rolf was a woman who was equally comfortable having a foot both in the spiritual camp and the scientific research camp. She had certainly done both over the course of her life. She spoke often of the need to do research on fascia. When some money showed up, as I heard the story, she had the choice between a straight research project that would have given Rolwing® Structural Integration [SI] credibility in terms of things like oxygen consumption and other physiological responses. She chose instead to do the Valerie Hunt 'energy' study, which was much more spiritual and much less scientifically grounded. The Hunt study was a very interesting event but does not stand up to scientific scrutiny, in my opinion.

After Ida left us in 1979, there was Frances Wenger, a physiatrist, who was interested in getting some research going. His protégé, Thomas Findley, was also interested but it seemed to be like running on shale; a lot of activity and noise but not getting very far. Not until 2001 after Jim Oschman's book *Energy Medicine* came out, did some seed



money come together from IASI and the Rolf Institute® to form the first International Fascial Research Congress in Boston in 2007. That event brought researchers from a number of fields together with practitioners from a number of modalities. We met again in Amsterdam in 2009 and in Vancouver in 2012, each time with more excitement and connection between the two groups. The next one is planned for Washington DC in 2015. Having major scientific conferences so close together on a single subject like the connective-tissue web is quite extraordinary. We've discovered there is a lot of research out there on fascia; we just didn't know about it.

For instance, a tremendous amount of research has been done on connective tissue in terms of wound healing. One of the things they wanted to know was, when you open up your body surgically or from a trauma, how does tissue (skin, muscle, fascia) get pulled back together? That's a mechanical event. Tissue is tensioned in the body and splits apart when you open it up. Something has to pull it back together. We think of the skin as growing back together, cells simply proliferating, but actually, it gets pulled back together under the scab by cells called myofibroblasts, which tug and knit together the biological fabric as a bridge for the epithelial cells to use to link up. Myofibroblasts are

fibroblasts induced to develop more and more actin, one of the muscle proteins that contracts inside the cell. That actin gets hooked to transmembranous proteins like integrins (now just one of 150 cell adhesive molecules). The cell reaches out its little fingers and grabs onto the fascial matrix and then contracts the actin and draws that fascia together. That is what is happening when the wound is closing. Now they have discovered these cells exerting a stiffening force on large sheets like the thoracolumbar fascia or the fascia lata or the crural fascia.

I'll give you an example of how these smooth muscle-like fascial cells can be useful. If you are sitting for a long time, as you are on a plane, the water in your body tends to pool in your legs. The cells in these fascial sheets in your leg will sense the [resulting] tension applied to that fascia and will contract in the fascia like your own support socks, squeeze it around the water, and push it back up your lymph channels so you don't get too edemic while you are waiting to land.

Really exciting things are coming from all over. We just didn't know these things were going on until we finally set up these scientific conferences on fascia, and then anybody who had anything to do with fascia started clamoring, "Well, we want to be in your conference." There are surgeons researching how fascia heals and doesn't heal after operations. There was a Canadian meat scientist who was studying fascia in beef. (They want the meat to be tender and you know what makes tough meat? Fascia.) They were studying how fascia supports itself in cows, with basic research that had relevance to those of us in the bodywork field. We don't have to sponsor all this ourselves; we just need to gather all the research that is going on.

BS: Tell us about fascial components.

TM: When we say *the fascial system*, we are talking about four elements: fibers, glue, water, and cells. The collagen fibers are what we always think about when we envision fascia, the white fabric-like strings that make up the ligaments, tendons, and sinews. But in between that is the amorphous gel of hydrophilic (meaning water-soaking and spongy) proteins that are at various stages of snot, if you will excuse me. They are called mucopolysaccharides, glycoaminoglycans, proteoaminoglycans, and you've heard words like heparin, chondroitin, fibronectin

– all of these are fancy words for snot-like molecules that link the fibers together and provide lubrication and a highly adaptable medium for all the exchange that goes on. These many forms are also the glue that holds everything together. So the fiber is, as we often say in the Rolfing world, a three-dimensional spiderweb. But that spiderweb has dew all over it and that dew is the *snot* that holds it together and really acts like a sponge soaking up fluid and promoting its flow or its stasis, depending.

We have the fibers, we have all the hydrophilic proteins and we have the third element, water. Cells, principally fibroblasts, are the fourth element. Collagen, elastin, and reticulin form the fibers. I think there are twenty-six different kinds of identified collagen but I really can't take you through the minor differences among the structural properties of those different states of collagen. There are around 150 of these hydrophilic proteins now that are in various arrays around the body. If you put these fibrous proteins, the spongy proteins, and water together, you really get a versatile spectrum that can make so many different kinds of things in the body. The lens and the cornea of the eye are made of a particular kind of collagen that is transparent.

All the ligaments, all the stuff around your muscles, all your mucous membranes, the 'leather' in your bones and cartilage, and the bags of your organs are all held in fascia. It's the ubiquitous body-building material that makes everything you might get at Home Depot, if you wanted to build a body of your own. If you were doing the Frankenstein thing in the laboratory you would get wood or PVC for the bones. You'd get silicone for the cartilage. You'd get string and rubber tubing and some kind of insulation and rubber for the insulation. And where would we be without duct tape? Your body makes all of these things by combining those fibers and mucous proteins together in different amounts of water. Those materials are all over the body. They are all around the muscles. They form one big system.

BS: That's what we are interested in as Rolfers, the system.

TM: But here's the trouble: in 500 years of anatomy we haven't seen that as a system. We have described our biomechanics in terms of individual parts, and we still name them in terms of those individual parts, and it's really hard to think other than

those individual parts – iliotibial band, sacrotuberous ligament, rectus femoris, thoracolumbar fascia, nuchal ligament, etc. We have all these names for different parts in something that is absolutely unitary and whole. There are two other major whole-body systems: the circulatory system and the nervous system. We have names for parts of those too. We talk about the vagus nerve or a peripheral nerve or even a particular individual neuron in the nervous system, and all the different parts of the brain like the brain stem, the pons, and the cerebellum. But we know, even though we talk about parts, that the nervous system is all one big system. It operates as a self-regulating system. We understand the autonomic nervous system. We understand that there is a kind of seesaw between the sympathetic and parasympathetic in terms of how we are aroused in different parts of our body at different times. This system regulates itself without a lot of thought on our part. It's an *autonomic*; our *automatic* self-regulating system.

The circulatory system is likewise a self-regulatory system that runs itself in terms of blood sugar, insulin, and hormone levels going up and down; a fluctuating of flow within limits. We have names within that system too. We talk about the aorta, this artery, and that vein. But if you have been to the *Body Worlds* exhibit, you understand this is one big circulatory system. It is an event; it is easy to see as a whole system. This is also true for the neural net.

But now we are talking about the third system, the fascial system. We don't really have an idea of how the whole system works. We have an idea of all the individual parts; this tendon, this ligament, this interosseous membrane, this bone, and this joint capsule. But science in general and the physiotherapy world in particular doesn't think of it (as we do) as a system that is communicating with itself all over the body to regulate our mechanics. We have described our mechanics in terms of levers and force vectors that are applied to a structure with x amount of deformation. Consequently, we have come up with a 'parts-based' idea of how the body works mechanically. Our medical system treats the Achilles tendon or a SLAP tear as local separate failures. That idea has taken us some way down the road. We can certainly say things about support, posture, and rehabilitation from this model of thinking.

Ida Rolf called on us to consider this 'lost' system as a holistic regulatory system, but history has worked against this concept. Imagine we went back to 1540 to Vesalius' laboratory in Padua to see all his scalpels, cleavers, and the various tools that he used to cut up (the literal meaning of 'anatomize') a body. Anyway, I imagine going there and taking all his scalpels and cleavers away and leaving a big vat of detergent that would dissolve the cellular material in the body. In my dream, Vesalius would come in the next morning and pick up his cadaver and dip it into the cell solvent. (They are doing this now and actually a common detergent in shampoos works pretty well.) All the cells would dissolve away and you would be left with this unending webbing that surrounds every cell and every organ. This image, this preparation, would have changed the course of anatomical history.

About 70 trillion cells (that is what they think now, it's pretty hard to count) are all held together by this fabric. Imagine how each muscle exists within this fascial webbing. It does not necessarily pull only from end to end, which is what we have assumed with muscles. It pulls on the whole web and therefore can have effects quite far away from the muscle itself. This really hasn't been accounted for in our biomechanics and this was an idea that Ida was talking about back in the 70s. We all said, "Oh yes, this is a very holistic idea," but it was kind of lip service; we didn't really have a way of speaking or identifying or quantifying how this goes. In the new research, this is all changing and we are beginning to see how the muscles work at a distance, work on other structures, other than their two ends.

BS: Any other pieces in terms of the historical aspect of Dr. Rolf speaking to the fascia as an auto-regulatory system?

TM: She spoke in large, historical terms referencing the auto-regulatory system all the time; *the man*, *mankind*, or *the person*. Look at the chapters toward the end of her book. What she said is what you could say at that time, an assertion, rather than a scientifically proven fact, that the fascia works as a whole. But filling in the details through research has been left to the last decade or two, and has really been coming together in the last few years. The general idea of the Rolfing ten-session series as she taught it was to undertake working with the whole body because patterns went through the whole body. It wasn't a matter

of individual muscles being at fault or individual bits failing.

She did not have the idea of 'tensegrity,' which I find crucial. I was familiar with it; I studied with Bucky Fuller before I came to Ida Rolf. I had studied about tensegrity in terms of architecture, but I had never thought about applying it to the body. There was a man named Ron Kirkby who introduced the idea to our community, and Dr. Stephen Levin, an orthopedist, who tirelessly developed the idea in the medical community, but it was the alternative community that was doing the most listening. I, having studied with Bucky, grabbed that idea and ran with it. Tensegrity gives you a visual feel of how the body responds as a whole.

Let me back up and say, the body is a strain-distribution machine, not a strain-focusing machine. Imagine taking every muscle off the body except the biceps and saying, "What would the biceps do to the skeleton if it were the only muscle on the body?" You think of it acting only from one end to the other end and therefore we say the biceps is a supinator, an elbow flexor, and a weak diagonal flexor of the shoulder. Then we wipe our hands and walk away saying we know what a biceps does. But in fact, a biceps never works alone on a body, never ever. And it doesn't only work end to end. It works on the brachialis and coracobrachialis beside it, and the bicep has a tendon into the forearm flexors on the other end. It has all kinds of connections to the ligaments of the shoulder. Muscles are working on nearby structures aside from what we are pleased to call their function, which we narrowly define as end to end. Dr. Rolf had a definite intuitive sense of this from her experience of yoga, her training in osteopathy, and doing her own work. But articulating it more specifically has been the job of various people; some of those people being Deane Juhan, John Smith in his *Structural Bodywork* book, me in my book, and through the models of Stephen Levin and Tom Flemons. It'll be a long journey to get to specific bio-tensegrity engineering, but a productive one. Danielle Claude-Martin is doing great work in this field, as is osteopath Graham Scarr in England.

BS: Where are we with current research validating fascia as an auto-regulatory system and communicating beyond the origin-and-insertion type of mechanism that is more localized?

TM: The idea of myofascial slings and closed or open kinetic chains of muscles – which is muscle action at a distance through the fascia – is very present in the personal-training and rehabilitation fields. The idea of putting those muscles together through the fascia in slings is something I put into my book, *Anatomy Trains*, which is more of a map or image than a scientific proof. More scientific researchers, like Andry Vleeming and Diane Lee, have done work on the fascial sling. For instance, they are documenting the biomechanical connection from the latissimus on one side over through the thoracolumbar fascia to the gluteus on the other. Another connection from the pectoral muscles continues from the external oblique on one side, through the pubic bone over to the adductor longus on the other side. These kinds of oblique slings and other slings have been studied and documented in terms of actually putting 'strainometers' into the fascia and pulling on one end and seeing the strain show up at the other. It's more than just a 'good idea' now.

BS: What about myofascial force transmission?

TM: All of the *Anatomy Trains* that I have put into my book, I have dissected out of the body. I am pretty sure they can be an objective reality but nobody has done the work to actually document the pull on the scalp showing up on the feet or the other way around. I am more speculative and ahead of the science in that way. But researchers with more money and patience than I have are documenting myofascial force transmission beyond the origin and insertion to farther away.

Secondly, people have documented myofascial force transmission through the fascia from one muscle to the muscle beside it. We never thought of things that way. We thought of force going from one end of the biceps to the other.

When you are jumping rope and landing on the balls of your feet, our regular biomechanics would say the soleus and gastrocnemius are taking the force, that the tendon is elastic, so you are kind of bouncing on the tendon – or, in older thinking about it, bouncing on the muscle. As it turns out, when the Achilles tendon is stretched, it transmits force not only to the soleus and gastrocnemius but also to the deep posterior compartment underneath and to the peroneals over to the side. Only

50-65% of the force is making it to the other end of the muscle. About half to one-third of the forces are being distributed sideways to other muscles. Once you start thinking this way, you see it takes all the strain off of one muscle and distributes it out through the whole lower leg, therefore you don't have to be so strong, your body doesn't have to be so heavy, you don't have to have so much muscle because the load is distributed over all the tissues of the lower leg, upper leg, trunk, etc. Your actual body is much more efficient than the way we have thought about biomechanics for the past 400 years.

Myofascial transmission also goes beyond the muscles to the ligaments, which is really interesting. In the previous way of thinking, if I were lowering my arm from a 'preacher curl,' the ligaments of the elbow were doing nothing, nothing, nothing until *bam!* I get to full extension and suddenly the ligaments stop the joint from damaging itself by limiting the motion. Again, that is really inefficient. Why would you have a system that was inert and inactive and redundant until you got out to the end range of motion? You don't get out to the end range of motion very much unless you are a yogi and into deep stretching. If you are chopping wood or something like that, you are not going from one end of your range to the other; you are working in the middle range. (You have a tremendous amount of force going through the joints when you are chopping wood, but you are not necessarily at the end range of motion.) We now know that when the muscle contracts, it also tenses the ligaments nearby. Anatomists put a scalpel in between the muscle and the ligaments and then declare them to be parallel systems. Well of course they are parallel systems you jackass, you just put a scalpel in between them and separated them. But in the body they are not separate. When I tense my quads, I am also tensing the medial and lateral collateral ligaments (and the 'new' anterolateral ligament). I am also tensing the ligaments along the bridle at the front of the knee. I am also tensing the ligaments along the front of my hip because they are extensions of the vasti muscles. Again, muscles don't simply contract from end to end – they just contract and tense whatever tissue is in the neighborhood. And the ligaments are in the neighborhood.

Finally, there is the neurovascular bundle that comes to supply the muscle, arriving by way of fascial sheaths. That is the fourth place where the fascia is connected into the

muscle, which we haven't actually thought about in our regular biomechanics. The nerve and the blood supply have to be able to accommodate movement of the muscle. The currently popular 'nerve work' frees adhesions in this unique part of the fascia.

All this research is pointing us toward Ida's idea of the system as a whole working together. The body is clearly a strain-distribution machine, not a strain-focusing machine. 'Myofascial force transmission' is clearly a misnomer – there is simply fascial force transmission. Muscles are active organs and nerves and viscera more passive organs within that singular web.

Tom Myers was certified as a Rolfer in 1976, and remains a member of the Rolf Institute. Author of Anatomy Trains (2014) and co-author of Fascial Release for Structural Balance (2010), Tom directs Kinesis, which offers continuing education and SI training worldwide, from his home on the coast of Maine.

Bruce Schonfeld is a Certified Advanced Rolfer and Rolf Movement Practitioner in Santa Monica and Los Angeles, California. He teaches continuing education classes in Fascial Integration: Structural-Visceral Approaches through the Rolf Institute and International Alliance of Healthcare Educators.

~~execute the ten sessions as a 'Recipe', but I couldn't see structure. Rolf told us to keep following the Recipe until we knew what we were doing. Fortunately my hands were better than my eyes (though heavy in the style of those days), and my clients and I sometimes had profound realizations of awareness and being.~~

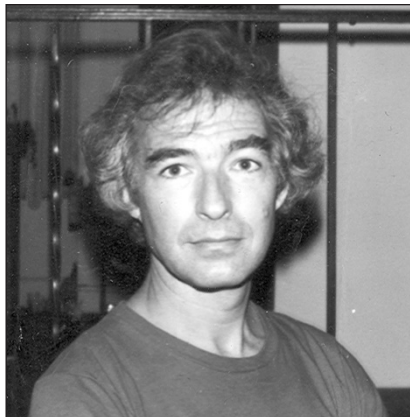
~~Still, I knew I didn't understand the movement part. If structure and function were two aspects of the same thing, the function part was a bit skimpy for me. The key seemed to be to know more about movement. I also felt the touch needed more refinement, but what I learned about that has been published elsewhere (Maupin 2007). Here I want to describe what I learned about movement.~~

Expansional Balance and the 'Line'

By Edward W. Maupin, PhD

~~I was quite inspired when I finished my classes with Dr. Rolf in 1968. As a psychologist I felt I had acquired a way to communicate with the core consciousness of a person through the body. Nine years earlier, in graduate school, I had had a 'beginner's enlightenment' using a Zen Buddhist meditation. I discovered a point of witnessing from which I could observe the contents of my mind without attachment. For the next three months I could return to that state. One of my great discoveries was that my body is me in the realest sense, and that it is extremely intelligent and creative. The body seemed to me to be the key to authenticity and to developing consciousness. I decided I wanted to practice a psychotherapy that focused on the body. I worked with Mary Whitehouse, the pioneer of Authentic Movement, and later, when I lived at Esalen Institute in Big Sur, I had access to other pioneers in body techniques. It was when I underwent the ten sessions with Rolf that I found myself back in the state of 'witness.' Frankly, it was the pain that made it necessary, but in witnessing I discovered much else. I asked her to train me. Four months later, in January 1968, I audited her first "Esalen class" (actually at the California Motel in San Francisco) and 'practitioned' six months later in her second.~~

~~I emerged, grateful for what I had received, but aware that I didn't know much. I could~~



The author at forty-four and at seventy-five.

The Line and 'Expansional Balance'

~~When speaking of movement, Rolf emphasized the Line. The centers of gravity of each body segment should, most efficiently, align in a vertical column. Again and again she emphasized this as the fundamental concept of integrated structure. She sometimes talked about the balance of segments on this Line as if it were a static concept. That blocky boy, the so fiercely defended Little Boy Logo, expresses this static quality.~~

~~But she also spoke of the Line in a more dynamic way, as a polarity expanding in two directions. She said the reflexive downward thrust of the feet against the ground could be translated into an upward thrust of the head – provided the pelvis, diaphragm, and shoulders are not interfering, but are balanced on the Line.~~

~~Communicating the full feeling of this dynamic expansion would have taken the skills of a dance teacher, which Rolf was not. I remember awkward scenes of our class sitting rigidly 'keeping our heads up and our waistlines back,' lest she chide us for our lapses. Once she had us standing in a chorus line attempting to swing our knees forward from the twelfth rib. (This doesn't do justice to the 'Patterning' movements she also taught and which Judith Aston so effectively elaborated.) But more developed movement work was definitely needed.~~

~~Six years later I met Michael Nebadon (known then as Oscar Aguado), an Argentine jazz dancer. He had had moments of such inspiring freedom in his dance career in New York that he had "retired~~

of the cuboid. But this sophistication is usually unconscious.

Conclusions What About the Rest of the Body?

I have deliberately left loose ends throughout this article. Clearly, neither my typology nor my interventions can stand alone—pun intended. For one thing, feet and lower legs cannot really be addressed separately. Just one example: I find that a fixed short arch often responds to work at the tibialis posterior right at its most superior insertion, whatever restrictions I may palpate along septa further down. But I cannot possibly add a section outlining all such implications!

Still less am I able to address the coronal vs. sagittal ‘movement temptations’ in the feet of Internals and Externals as they interplay with the rest of the body. Is there, for example, any relationship between the ‘coronally tempted’ toe box of the average Internal and this person’s ability (if healthy) to use the spine like a contracting and expanding Slinky®? I’m inclined to think that there is a common theme of agility here. On the other hand, is there any connection between the ‘sagittally tempted’ arch of the External and his ability to bear weight with a relatively straight spine? Again interesting, but both these speculations are far beyond the scope of this article.

So that’s it. You’re on your own. Have fun, try stuff out yourself, wriggle your toes, climb things, grow a tail, live three dimensionally, wake up your inner Happy Monkey and Wise Ape, deepen whatever Internal-External pattern is natural to you, explore whichever pattern feels counterintuitive, find where the two patterns intersect. And if you feel like it, drop me a line.

Michael Boblett works in San Diego, California. He has been a Certified Rolfer since 2003 and a Certified Advanced Rolfer since 2008. He is a retired Unitarian minister. His advanced degrees (MA, MDiv, and DMin) are from Pacific School of Religion in Berkeley, California. At seminary, his focus was on the anthropology of religion, with experiential training in shamanism under Michael Harner, author of *The Way of the Shaman*.

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Fascia as an Auto-Regulatory System

An Interview with Tom Myers (Part 2)

By Tom Myers, Certified Advanced Rolfer™ and Bruce Schonfeld, Certified Advanced Rolfer, Rolf Movement® Practitioner

Editor’s Note: Part 1 of this interview appeared in the June issue of this Journal.

Bruce Schonfeld: We’ve talked a lot about fascia research. How is Western medicine receiving all of the research and taking it into consideration?

Tom Myers: It is happening very fast. It is being received into the mainstream with speeds I would not have credited to happen in my lifetime. I have surgeons coming to me and saying, “How can we do surgery with the fascial response in mind?” Of course these are the more innovative surgeons; who else would listen to a schlub like me? But it’s happening. I remember talking to [Dr. John] Upledger. He said that the first couple of years he presented his pressure-stat model of how the cranial bones move at medical conventions, people would come by his booth and say, “The bones of the head move? No, I don’t think so.” Then for a couple of years they would say, “The bones of the head move? I’ve heard about that.” Then by the time a few more years had rolled by, people would be at his booth saying, “Bones of the head move? Everybody knows that.” I feel very much that way about *Anatomy Trains*. When I first put the *Anatomy Trains* book out, it was this radical, heretical idea. Now people are attacking it as old hat and not sufficiently radical. I have watched myself go from being an innovator to being establishment in about twelve years. People are standing on my shoulders and saying this theory isn’t adequate.

These ideas are moving into physiotherapy, personal training, physical education, surgery, and the medical mainstream with great speed. If I may be so political, I would urge the members of the Rolf Institute® to come out and help that process by joining with people in the various medical communities to bring the word out. It is happening so fast that the structural integration (SI) world is under threat of being left behind. The fact is that *fascia as a system and the importance of fascia as an idea* are quickly and widely being accepted

into society. We shouldn’t be hiding our light and resting on the laurels of Ida Rolf from 1979. We need to get with the times and be part of this. Tom Findley is a Rolfer involved in research, and many Rolfers have been involved in the fascial research conferences, but so are chiropractors, osteopaths, physiotherapists, and surgeons. It is time to join with the rest of the crowd and see how this thing really works.

BS: I agree. I went to the Interdisciplinary World Congress on Low Back and Pelvic Pain in 2010 and it is a really good idea to see what people are doing in the evidence-based medical world.

It seems like the Pilates, yoga, and personal-training communities have really taken a shine to the fascial work. I am curious if you think there is something about those communities that has made them so responsive?

TM: I think they are very similar to our community. The idea of muscles working from origin to insertion doesn’t make sense to their experience either, so they are looking for something more inclusive. I would have to say that in those worlds fascia has become somewhat of a buzzword and everyone is talking about “fascial stretch this” and “fascial that.” What they are often talking about is how the whole neuro-myo-fascial web works. Sorting out what is neurological and what is fascial in some ways is really hard to do because organically and embryologically they were never really separate. The world of the fascia and the world of the nervous system grew together in your body. We only separate things for analysis with our minds but they never were separate. Where does the nervous system stop and the fascial system begin?

I do think ‘fascia’ is, as I say, kind of a buzzword, and some people don’t really know what they are talking about. When I see trainers or sometimes Pilates people and

they say, "Fascia, oh yeah, that's the plastic cling wrap around the muscles," well, fascia as a system as we have been talking about it here, is so much more complicated than that. It is an auto-regulatory biomechanical system. I think it is really incumbent upon us who understand the fascia system to go out and educate people as to what it is really doing. For ever so long I was trying to educate people that this is really important and doing a lot. Now, I find myself trying to tone people down a little bit. The fascia is not responsible for your thinking and your every movement or injury. Actually, most injuries are fascial injuries: there are very few muscle injuries. There are nerve injuries, but most of the injuries are in the fascial system. That is something that all of these communities really want to know, "How do I treat injuries? How can I get injuries to heal faster? How can I prevent injuries from happening?" Injury treatment is where, perhaps, knowledge of fascia as a system is the most applicable.

When we work on the median nerve, we are aware that it is part of the larger nervous system. When we inject a drug into a vein, we know it will be all around the whole circulatory system in minutes. But physiotherapists and surgeons often work on the Achilled tendon as if it were a stand-alone structure without the realization that they are working with a body-wide responsive system. This idea has to change.

BS: What have you found to be a very nice user-friendly or good transitional way to discuss the fascial system and the growing body of research with more classically trained medical doctors? How would you try to get a nice conversation started with a neurologist about fascia and its relationship to the nervous system?

TM: It kind of depends on whether [he is] a surgeon or not. A surgeon looks at fresh fascia all the time. To try to explain what we are doing to an orthopedic surgeon is an easier job than trying to explain to a general practitioner or a neurologist. (If you are talking about a neurologist who prescribes drugs and hasn't done any gross anatomy or looked inside the body since he did his anatomy labs twenty years ago with embalmed cadavers that were already prosected. Looking at prosected cadavers is a way to see how it is in the books but not a way to see how it is in the body.)

Fresh fascia, living fascia, responds so much differently than dead fascia. Dead fascia responds differently than fascia that

has had formaldehyde put into it because the fascia is what gets fixed. If I say to a normal general practitioner, "This fascia changes and it moves. It responds and it develops," he may say, "Oh, no it doesn't. You can't even move the stuff." That is true if you are talking about a cadaver, but it is not true if you are talking about a human being. If you talk to orthopedists, they will be right there with you. They know that when they open up the back of the hip to do a hip replacement, all they have to do is touch the scalpel to the fascia and it parts like a spiderweb in front of them. And of course, they know a little bit about how it heals. Surgeons sew the layers one by one now, which doesn't really help that much because in the process of cutting them and sewing them back together, they lose their serous lubrication and get stuck together anyway. But if they sew it back layer by layer, it is certainly easier for those of us who do this kind of work to get those layers to work separately again.

I think the dialogue is coming along. You talk about biological fabric. You talk about responsiveness. This is a system that has viscosity, elasticity, and plasticity. Some people are opening to hearing it and some are not. Geoffrey Bove and Susan Chapelle have demonstrated in the lab that visceral adhesions can be freed and 'disappeared' through manual therapy; that's a definite plus in getting agreement from the traditional medical world.

BS: What are Rolfers or SI practitioners, in the most general sense, still missing that you have gleaned from your intense immersion in the research that is coming out and that you have been doing? Anything that you could entice us with or good pieces that we might not realize?

TM: Good question. This system really is an accommodating, strain-distributing system. Our understanding of how the fascia compensates, gets thicker, adheres and sticks layers together is really what is going on. A lot of people out there don't know that – even among bodyworkers, yoga instructors, the folks closest to us in terms of people working directly with the body in an educative, non-medical way – and this message really needs to get out there in a big way.

One of the ideas Ida [Rolf] had very much explicitly in her talks was fascial planes and the interrelationship between fascial planes. Almost everyone in the Pilates, yoga, and training worlds will think of short or

adhered fascia: "What is too short, too long, too strong, and too weak?" But they do not think in terms of the interrelationships of fascial planes. It is not a question of which muscle is too short or which muscle is over active or which muscle is not active enough. It is that the fascial planes have gone out of relationship with each other. It is like draping a dress over a model or draping a toga over somebody. If you're going out to dinner, you want the toga to fall nicely and sweetly over the skeleton in a balanced way. That is kind of my main message when I am out there talking to these groups. "Look at this photograph and you will see that the front plane is pulled down and the back plane is pulled up." I would talk about that in terms of Superficial Front Line and Superficial Back Line, but I don't care what terms you use.

As Ida Rolf pointed out to us, most often the front falls and the back lifts up. All kinds of things happen after that. You compensate in any of a number of ways. Or in my own case, the head gets pulled forward. I was very short-sighted and had 'Coke-bottle glasses' when I was a kid. So, my head came forward to try to get to the light, to see clearly what was fuzzy. The rest of my body had to follow. The posture underneath my head had to accommodate my head-forward posture. The fascial planes go out of relationship to each other and then they adhere to each other in this new position. You can undo that with yoga. You can undo that with SI. You can undo that with exercise if you go at it long enough. But if you are not seeing the fascial planes being out of relationship to each other, you don't really know how to work them. It is that kind of seeing that structural integrators really have a handle on and I think a lot of other people don't.

You asked me what structural integrators are missing and I ended up telling you where I think our greatest strength and message lies. What structural integrators are primarily missing is not information but an outreach program. All kinds of professionals want the kind of information, visual assessment, and holistic treatment strategies that are Rolfers' daily bread. They just don't know we are even here, because (except for a few of us who often get accused of 'dumbing it down' or 'selling out') there has been very little outreach from the Rolfing® [Structural Integration (SI)] community into the wider professional communities. We are very small, and unfortunately getting smaller

because we are not good at sharing. It's too bad, but we are fast being left behind by the rest of the world. Rolfers arise! Write more books. Do more courses for physios, trainers, nurses, occupational therapists, in-services for hospitals. We just need to get out there, not stay small and inward looking.

BS: Over your almost forty years of doing the work, is there anything that has stood out to you that was once just dogma, just understood to be the way things work, that has been revealed to be otherwise?

TM: As with any teacher, Ida Rolf was a woman of her time. Her time was of the Edwardian era. She was born in the Victorian era and she really developed her work between the two World Wars. Ida Rolf, Joseph Pilates, and Moshe Feldenkrais, any of the innovators, were looking at their time. Ida Rolf's process, in my opinion, works very well for people who have a lordotic spine, anterior tilt of the pelvis, posterior tilt of the ribcage, and then an anterior head. You have to modify it for someone who has a posterior tilt of the pelvis. We have been sitting in chairs working with computers and doing too much tail-tucking in our era, so I find more people these days have a posterior tilted pelvis. It is always difficult with your teachers to know what is 'the baby' and what is 'the bath water' in their teaching. What are you going to throw out and what are you going to keep? Everyone has an idea, "If only Ida had known about SourcePoint Therapy®," or "If Ida had only known about gluten intolerance" – or whatever your current fad is at the moment. This is a necessary process; I remember saying the same thing. One day a group of us in advanced Rolfing training got this idea that we should do this in water. Then you would be out of gravity and the client would be floating and the fascia could free itself! We came running to Ida. (We called her "Dr. Rolf," we did not call her "Ida" to her face.) She said, "Oh yes, we tried that back in 1956." She laid it out for us why this didn't work, what happened when you tried to do this work in water.

Sometimes your teachers have already considered what it is you are thinking about and have explored it and dismissed it, or explored it and incorporated it. Other times you really do have an innovation that you really do have to pay attention to. She told us, and I repeat it to my team, "You have to stand on my shoulders." She didn't know, couldn't know – they weren't even on the radar – that there were cells

inside the fascia that could contract and change the number of foot/pounds on the fascial planes. She had her intuitive sense of it. She was an amazing practitioner. She was a good scientist, but she was working essentially with the knowledge available in the 30s or 40s or 50s. Tensegrity was really something that came after her, and a lot of this fascial research came after her. It hasn't changed the wisdom of her basic insight, but everyone is trying to find what the application of these scientific things is, and I think it is going to take the next forty to fifty years for it to shake out.

We have to realize that some of what she said is really going to be altered. Muscles don't stick together, for instance. If you have seen "The Fuzz Speech" by Gil Hedley you will realize that this idea was in Ida's old film about Rolfing [SI] that was made in the early 70s. The muscles get stuck together and then we do some Rolfing work and then the muscles slide on each other. That is clearly not happening. Maybe we are making the fibers that go between the muscles stretch a little so that the muscles can slide on each other a little. I have done a lot of dissection and I have never seen muscles that slide on each other. I see tendons that slide relative to each other. You can see films of that at work by French surgeon Jean-Claude Guimberteau. But muscles are connected to each other and they are supposed to be connected to each other. They don't slide on each other. They are not separate. That was an idea that was prevalent in her time that we just have to let go of.

And of course the social context changes as well. Dr. Rolf was heard to say that a good series of sessions could turn a homosexual straight. I doubt very much that that concept would have survived in her own mind and heart in this day and age. I shudder to think what statements I have made that will look ignorant or intolerant to my children's children.

BS: In conclusion, where are we heading?

TM: Toward the understanding and application of fascia as the regulatory system of our biomechanics. It is one of the three holistic body systems and the least understood of the three.

If you look at the nervous system, it is an alarm clock. It records every sense impression and sets off alarms if things are different outside from our inner expectations based on previous experience.

It is a system for forming a picture of the world and comparing the two worlds for novelty or threat. You simulate a world inside yourself. You take the information from your senses and you simulate a world outside yourself. You constantly compare the two. As long as they match up, you are calm. When they stop matching up, you get excited in one way or the other and export that excitement to the muscles as tension or movement or glandular secretion.

The circulatory system is a way of self-regulating our chemistry and adjusting hydration, a necessary condition for every living cell. Constantly, the circulatory system is regulating our blood sugar, the hormone levels from the glands, and a hundred different levels of chemistry circulating in our blood. It is constantly bringing things from the outside to the middle and bringing things from the middle back to the outside again, whether that is the lungs or the skin or the kidneys. In my opinion, emotions are stored, recorded, and released in this chemistry, but I can't get many people to agree with me on that.

The medical community just hasn't thought about this third system, which is the entire biomechanical regulatory system, the self-adjusting biological fabric of fascia. Where we are going, is that we now realize that every cell in the body has somewhere between hundreds or thousands of adhesive molecules that stick through the membrane that, like Velcro®, hook to the surrounding fascia matrix. When you stretch, whether by doing yoga or in an SI session, you are changing the biomechanics of a particular cell. It is now clear that mechanical tension or pressure on cells can change their epigenetics, change how the cell expresses itself in function.

The ancients had an idea that is expressed in the *Vitruvian Man* by Leonardo da Vinci. The head should be 1/7 of the body and the stretch of the arms should be the same as the height. They were looking for the ideal proportion of the body. The Greek sculptors and the Renaissance artists were looking for the ideal model of the human body. (Ida had the idea that the Sumerians had it about right; read Rolfers Hans Georg Brecklinghaus's book [2002] on art and body structure for more ideas in this vein.)

We now can define the ideal proportion of the human body in cellular terms. We can say your body is in ideal proportions when all your cells are in their happy place biomechanically. That is a very general

statement. How we get there is a more complicated thing. We know that muscle cells like a certain stretch. We know that nervous cells don't like compression; they don't mind stretch much but they don't like compression. Epithelial cells can't take too much tension. So each cell wants to be in its happy place. If a cell is too stretched, it can't do its assigned job any more – it instead uses its energy to reproduce and make more cells to fill in the gap because it is pulled too thin. If cells are compressed from every angle they say, "There are too many of us here and I am going to commit suicide!" They pull up their apoptic gene and 'commit suicide' because if cells are too crowded they will form tumors. Better they die and get taken back to the liver to get recycled.

SI practitioners have been focused on the macro-biomechanics of posture. But a lot of the new information is coming from cellular biomechanics, and this is very important. Cells have to be in the happy, middle place in order to do their job properly. All structural integrators have had the experience of a client saying, "Ya know, before I came to you I was really constipated and now I'm not any more. Did your work have any thing to do with this?" You want to say, "Oh yes, of course." But do we have any idea (other than the vague, "Well, as you get the body more organized. . .") what the mechanism is by which that might happen? We didn't really have any idea before, but now we do have some idea. When cells are crowded, they can't do their job. When cells are over-stretched, they can't do their job.

As we make the structural body happier by being more balanced and more in its comfort zone, then the rest of our cells say, "Ah, yes. Now I can do my job." We have all had the experience of clients' menstrual cycles normalizing or various physiological things that otherwise we would have no way of explaining other than just luck. But now we do have a way of explaining it: the cells are getting to their happy mechanics. That is what we really haven't considered over the past fifty years. That is what Donald Ingber and his team are considering in "The Architecture of Life" and all the subsequent research in parsing out the diseases of what we can now call the adhesome or mechanosome. People are doing a lot of work on cellular biomechanics and the adhesome, and it really behooves us to keep up with this work.

BS: Anything that seems outstanding or needs to be spoken to in terms of this interview in making it more complete?

TM: The only thing I haven't said is that water is magic. We have not figured out what water does. Water is so amazing. Scientists just think it is H₂O, but water is so much more complicated than that. The Achilles tendon is 63% water. These non-Newtonian, rheopectic gels – the glycoaminoglycans or GAGs – that hold us together have really amazing properties. To bring this back to connective tissue, I will reference the work of Gerald Pollack who wrote *Cells, Gels and the Engines of Life*. It is very likely that the membranes, not just the cell membranes but all the membranes, made by the fascia and the collagen and films made by these hydrophilic proteins are going around and organizing the water in the body into a liquid crystal.

We kind of used to talk about liquid crystal. We all got off on Jim Oschman's metaphors that were way out there. It turns out that he was right about that. The connective tissue is a liquid crystal and it is organizing the body's water (maybe all of it, certainly most of it) into a liquid crystal. This is what is called 'bound water'. It is bound into the connective tissue in a highly ordered way. We can imagine that in disordered connective tissue, it is bound in a much more disordered way. As we put what Ida Rolf used to call 'pattern' in the body, then we may be ordering the water in the body and thereby ordering the consciousness in the body. But that is way out there and I am just speculating.

BS: I have heard Robert Schleip talk about that also in the context of the research; that maybe a lot of what we are doing is hydrating the matrix and allowing water to get in there and do its job more fully.

TM: Yes, but to do its job in a very orderly way. Water in an ordered pattern is capable of storing information; we don't know exactly what kind of information, but it is capable of storing information in a way that disordered water is not.

BS: It is like looking at microscopic images of fibers that are orderly, compared to those that have been discombobulated for one reason or another where they just look like they are out of order.

TM: We now know and can demonstrate that movement orders fascia. If a client comes and you are putting pattern into the

body and [he is] going back and sitting on the couch, the fascia will start to disorder itself quite rapidly. Healthy load, by which I mean movement or exercise, induces ordered fascial architecture. Sedentary living makes for fascia that is more like felt. "Sitting is the new smoking," as they say. As structural integrators, are going in there and finding those 'felty' places and ordering them, but unless the person keeps moving properly, [he is] going to lose what we do. We can create pattern, but movement is necessary to maintain it. In this way I can recommend cross-referrals with the movement teachers in your community; Tai Chi, martial arts, Pilates, yoga, well-trained personal trainers, Aston Patterners – any and all of these and a hundred other categories I left out can all be useful partners in maintaining posture, bounce, and balance.

BS: Totally. That is the part where clients need to embody the work, inhabit their bodies.

TM: So it all comes back to awareness – but awareness exists on many levels, not just the conscious awareness, but the subconscious intelligence of the body, the instinctive awareness that is so much faster than our conscious thoughts.

Tom Myers was certified as a Rolfer in 1976, and remains a member of the Rolf Institute. Author of Anatomy Trains (2014) and co-author of Fascial Release for Structural Balance (2010), Tom directs Kinesis, which offers continuing education and SI training worldwide, from his home on the coast of Maine.

Bruce Schonfeld is a Certified Advanced Rolfer and Rolf Movement Practitioner in Santa Monica and Los Angeles, California. He teaches continuing education classes in Fascial Integration: Structural-Visceral Approaches through the Rolf Institute and International Alliance of Healthcare Educators.

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