

Ida Rolf's **OTHER LEGACY**

What is Rolf Movement Integration?

By Rebecca Carli-Mills

■ KEY POINTS

- Rolf Movement Integration practitioners are trained to work with a person's gravity response as the basis to evoke movement that is more effective and authentically expressive, uses less effort, minimizes counterproductive muscular contraction, and allows for greater subtlety of motor control.
- By working artfully with gravity orientation, we gain an opening for working with deep motor patterns without disorganizing the whole system.



In popular culture, even among bodywork professionals, Rolfing is most often identified as a fascial mobilization technique delivered in a series of sessions (10 or more), called *Rolf Structural Integration* (RSI). However, Rolfing, a holistic approach, also includes a rich, somatic movement tradition that resulted in a substantial and comprehensive movement curriculum called *Rolf Movement Integration* (RMI). RSI and RMI grew out of a synthesis of the studies, interests, and passions of their founder, Dr. Ida Rolf. Together, RSI and RMI exemplify Dr. Rolf's philosophical approach concerning the nature of being human and the potential for improving health and well-being while living on a gravitational planet.

GRAVITY

*“This is the gospel of Rolfing: When the body gets working appropriately, the force of gravity can flow through. Then, spontaneously, the body heals itself.”*¹—Ida Rolf

“Gravity as a healing force” seemed only theoretical for me as an RSI and RMI practitioner until I attended one of Hubert Godard’s first US workshops in 1990. Godard, a French movement scientist, researcher, and dance professor, laid out his model of *tonic function*. The combination of theory with my felt sense created the conditions for me to realize how humans are built and wired for moving in gravity. As a dancer, I participated in many contact improvisation sessions and enjoyed moments of feeling in flow with gravity, such as effortlessly gliding onto the floor and finding easy momentum to float back up again, but I didn’t understand how it worked. How did my body adjust to make that happen? Honestly, I was more fixated on when it didn’t happen and movement was awkward, stiff, even painful.

TONIC FUNCTION

Tonic function is what Godard calls the body’s ability to organize itself in gravity and maintain balance while moving. Specifically, Godard found that “humans have a gravity response that is part of the inherent infrastructure of the body’s movement system and is founded on the prime directive of the upright human body—don’t fall down. The body’s movement system rests on this gravitational foundation.”² Anatomically, tonic function involves parts of the body, brain, nervous system, fascia, muscle spindles, Golgi tendon organs, and tonic muscles functioning together in a system to coordinate our body’s negotiation with gravity.³

But tonic function is more than just anatomical parts working together. It also has to do with what it means to be human—to perceive, coordinate actions, and give symbolic meaning to experience. Our gravitational response begins to shape in utero through the gravity response of our mother. Once we are born, our first months of life are spent in discovery through movement. We interact with our caregivers and the environment by developing rhythmic patterns of alternating tension and release, based on desire and satiety. This process results in building enough tonus (muscular tension) and a felt sense of the world adequate to negotiate gravity and eventually stand, walk, and

move autonomously. As we become more adept, our relationship with gravity becomes largely unconscious, yet it colors every perception, gesture, and movement we make. A central concept of RMI is to teach our clients to work consciously and productively with gravity, so it can fulfill Dr. Rolf’s vision of a flowing force, supportive of healing and well-being.

PREMOVEMENT: A CENTRAL CONCEPT IN TONIC FUNCTION

For bodywork professionals who want to work with their clients’ somatic embodiment process and movement patterns, learning to work with premovement is invaluable. Premovement (*prémouvement*) is a central concept in Godard’s tonic function theory.

Before you move, your brain anticipates a shift in balance and orchestrates a nuanced response so you won’t fall. This means that before you lift your arm overhead to reach for your favorite coffee mug, the muscles in the back of your calf activate so the shifting weight and momentum of your arm doesn’t throw you off balance. From the outside, I may not be able to see it, and you may not be conscious of it, but the parts of your brain and nervous system that coordinate movement have learned to orchestrate this nuanced response to gravity to keep you upright. Because maintaining our balance is so fundamental, this gravity-orienting process is continually going on in the background and sets the tonus for all other more complex actions.

Victor Gurfinkel, a neuroscientist and rehabilitation specialist, published research in the 1980s describing our capacity to predict the effect of a movement on our center of gravity. He called it *anticipatory postural activity* (APA)

Learn More

For an overview of tonic function, read:

- “Basic Concepts in the Theory of Hubert Godard” by Aline Newton, alinenewton.com/pdf-articles/basic-concepts.pdf
- “Tonic Function: A Gravity Response Model for Rolfing Structural and Movement Integration” by Kevin Frank, resourcesinmovement.com/wp-content/uploads/2014/09/KFTonicFunction-1.pdf

The History of Ida Rolf and Movement

Dr. Ida Pauline Rolf, born in the Bronx, New York, in 1896, lived an unconventional life. She earned a PhD in biological chemistry from Columbia University at a time when few women went to college. She was the first woman to hold a research post at the Rockefeller Institute (now Rockefeller University), the first medical research center in the United States, where she became an associate professor. Eager to expand her knowledge, Dr. Rolf took leave from her post in 1927 to study mathematics, physics, and homeopathy in Europe.

In addition to her formal studies, Dr. Rolf engaged in many pursuits grounded in the study of physical and movement awareness, consciousness, and the body-mind connection. An early interest for her was osteopathy, which likely influenced her thoughts about optimizing human biomechanics, restoring joint motility and fascial mobilization.¹ She was fluent in homeopathy, which may have contributed to her ideas about the power of the body to self-regulate and restore balance. And she was a serious student of hatha and tantric yoga, which likely influenced her commitment to work through physicality to improve the emotional, behavioral, and spiritual life.

Dr. Rolf was also an avid explorer of the body-mind exercise practices circulating in the US during the early 20th century. Many of these may have been inspired by the Physical Culture Movement, popular in Europe. Dr. Rolf studied the Lawson-Woods technique and worked with Amy Cochrane, DO, founder of PhysioSynthesis, and Jeanette Lee, author of *This Magic Body* and a proponent of the Alexander Technique.²

While in New York City, Dr. Rolf joined a community of seekers and pathfinders who found a home at the New School for Social Research, and she was a lively participant in the NYC salon circuit. These living, learning communities fostered cross-pollination among other somatic movement pioneers early in the development of their work, including Irmgard Bartenieff (Bartenieff Fundamentals), Moshe Feldenkrais (Feldenkrais), Fritz Perls (Gestalt Therapy), Charlotte Selver (Sensory Awareness), Mabel Todd (Ideokinesis), and Frederick Matthias Alexander (Alexander Technique). These pioneers developed holistic

methods based on cultivating sensorimotor plasticity, somatic awareness, imagination, and the value of current moment presence for affecting change in posture, movement, autonomic regulation, expression, and emotional well-being.

Rolf was interested in the interplay between sensory experience, perception, and language. She was heavily influenced by Alfred Korzybski, creator of General Semantics, and J. Samuel Bois, author of *The Art of Awareness*. The understanding that language shapes experience and behavior is essential to how RMI engages with clients and students. RMI practitioners cultivate embodied language skills to enroll clients in the art of sensory expression as a form of self-regulation and integration of experience.³

DEVELOPMENT OF ROLF MOVEMENT INTEGRATION

A formative time for RMI was the late 1960s, when Dr. Rolf practiced and taught her work during summers at the Esalen Institute in Big Sur, California, home of the Human Potential Movement. According to Rolfer Heather (Wing) Starsong, Dr. Rolf demonstrated and spoke about movement goals during her sessions, often asking for movement during her fascial work with clients.⁴ RMI began as a series of “restructuring exercises” formulated from Dr. Rolf’s principles by Dorothy Nolte, who taught them to Judith Aston.

In 1971, Dr. Rolf asked Aston to take the lead in developing and refining the movement work. In doing this, we can assume Dr. Rolf realized that movement needed to be an essential part of RSI. Aston taught early RMI trainings based on concepts such as using less effort, harnessing rather than fighting gravity, and honoring the spirals that naturally occur in human joints and movements. An innovative thinker and creative pioneer in her own right, Aston separated from the Rolf community in 1977 to form her own work, Aston Patterning.

After Aston’s departure, RMI was further developed, refined, and integrated into the Rolf Institute curriculum by RMI instructors Starsong and Gael (Smith) Rosewood, along with Megan James, Janie French, Annie Duggan, Jane Harrington, and Vivian Jaye. Each of these women added valuable layers to

further develop RMI certification and integrate it into the RSI curriculum.

In 1986, Hubert Godard, a French dancer, professor, and rehabilitation researcher, came to study Roling and stayed to become a lead teacher on the Rolf Movement faculty.⁵ He applied his deep knowledge of the science and experience of human movement to elucidate the gravity response, called *tonic function*, as a theoretical basis for a somatic movement curriculum. Beginning in 1990, RMI instructors and many serious movement students flocked to study with him and continued for the next three decades. Through him, Dr. Rolf’s theory about the effects of gravity on human structure and function came to life as concepts, applications, and embodiments we could practically apply in our practices. Godard’s teaching was pivotal in shaping the evolution of the RMI curriculum.

Notes

1. Eric Jacobson, “Structural Integration: Origins and Development,” *The Journal of Alternative and Complementary Medicine* 17, no. 9 (August 2011): 775–80, <https://doi.org/10.1089/acm.2011.0001>.
2. Jacobson, “Structural Integration: Origins and Development.”
3. For a more in-depth explanation of RMI and language, visit Kevin Frank “What Is the Role of Language When We Integrate Structure?” at <https://resourcesinmovement.com/wp-content/uploads/2015/08/The-Role-of-Language-for-Structural-Integration-1.pdf>.
4. Kevin Frank, “Rolf Movement Integration: An Historical Overview Through an Interview with Heather (Wing) Starsong and Gael (Ohlgren) Rosewood,” *Structural Integration Journal* 40, no. 1 (2012), www.resourcesinmovement.com/wp-content/uploads/2014/12/History-of-Rolf-Movement-with-Gael-and-Heather-1.pdf.
5. European Roling Association, “Hubert Godard,” accessed June 2023, www.roling.org/team/hubert-godard.





and measured it with electromyography.⁴ Since then, there have been many research studies on APA for a variety of purposes, such as rehabilitation and athletic training.

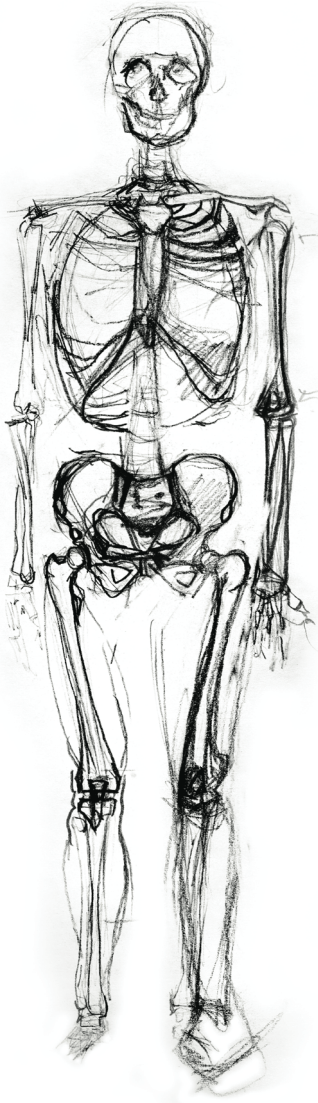
APA is at the heart of premovement. However, humans are complex biopsychosocial beings and our preparation for movement often reflects not only our gravity orientation but also our past and present thoughts, feelings, and attitudes, plus our relationship to the context for the movement. For example, you may tense your jaw in anticipation of the upward swing of your tennis racket. It's a big tournament and you need to do well. Or perhaps you slightly compress your solar plexus before entering a crowded room, maybe because you feel uncertain you should be there at all. Sometimes these small, subtle movements are limited situational occurrences. However,

if repeated enough, they can become patterned into your coordination, so you habitually repeat them, even off the tennis court, whenever you raise your arm or take a step. They may be repeated often enough to create issues, such as excessive shoulder tension and strain, limited extension in gait, breath restriction, or hesitation in expressing yourself. In a sense, they color and shape your world.

Working consciously with premovement provides a passage into our intricate system of movement coordination, planning, and execution. Deeply coordinated motor programs, such as gait, are not meant to be casually changed. After all, motor programs help us move

Learn More

To understand more about premovement, read this excerpt from the *2022/2023 Yearbook of Structural Integration: Volume 18*: www.theiasi.net/assets/docs/Yearbooks/Yearbook2022_2023.pdf.



Refresh Your Gravity Orientation

Right now, whether you are sitting or standing, I invite you to take a moment to tune into your body—your felt sense.

- What sensations come into your awareness?
- How is the weight of your body meeting the ground?
- Where do you feel pressure and touch?
- Do some places feel heavy and others light?
- How do you experience the space all around you? Above and behind you?
- How do you experience colors, light, sounds?
- How close or far away does the sky feel?
- Can you sense the earth through the soles of your feet?

Without intending to change or correct anything, you have just refreshed your gravity orientation. By tuning into sensory information and using somatic imagination, we can consciously enhance our rapport with this present moment in gravity. Then this refreshed sensory connection informs and shapes our movement.

through life effectively without having to consciously organize movement every time we want to open a door. Yet, established and repeated motor programs can be a source of stress and movement limitation, and may lead to injury. By working artfully with premovement, we gain an opening for working with deep motor programs without disorganizing the whole system. RMI practitioners are trained to work with premovement as a process to evoke movement that is more effective, authentically expressive, uses less effort, minimizes counterproductive contraction of antagonist muscles, and allows for greater subtlety of motor control.

PREMOVEMENT IN PRACTICE

Let's take a look at this work in action. Sydney, age 53 and an avid yoga practitioner, arrives to see me for some recent, but persistent, low-back stiffness and pain. After we talk, I ask her to take a walk around the room. Before she takes her first step, I notice a slight sinking of her weight. It's subtle, but enough to tighten the back of her pelvic floor and take her a little back on her heels. As she steps forward, I am watching, sensing, noticing what resonates in my body, what emerges in my felt sense. I feel myself sensing the ground and subtly going backward to go forward.

Sydney shares that she has been doing exercises to improve her abdominal tone in support of her back. She says she has been trying to hold her abdomen in more and level her pelvis, like her first yoga instructor said to do.

Ah, there it is. I recall Godard's phrase that "once we try to control the segments or blocks of the body, it's the beginning of the end of movement."

I ask her what happens if she doesn't hold her abdomen in or level her pelvis before she steps. How does that feel? She walks and says she feels a bit easier, but also more vulnerable, less stable. I notice her stride is a bit longer and she is rolling through her feet more; plus her arms have a little more swing.

An idea formulates for a session strategy. This idea emerges from what I am seeing, hearing, feeling in my body, and from my training and experience.

To help Sydney become more familiar with her premovement strategy, I help her identify it and then ask her to exaggerate it. Because premovements tend to be small, involving subtle contractions, it often helps to amplify them; bring them forward into our awareness. Sydney experiments. "Oh, when I do that, I don't really want to take a step at all; I just want to stay put where I am. I feel conflicted about stepping forward."

I am listening, receiving, with an attitude of open curiosity, allowing her realization to unfold. She goes on, slightly tearing up. I hear her voice tighten. She says her life feels chaotic; she needs to change her job; her husband wants to downsize, but she loves the home where they raised their children. "No wonder I want to stay put," she sighs.

The somatic nature of this premovement is not lost on Sydney. She is familiar with the symbolic communication of her body and movement through her years of counseling and yoga practice. This kind of awareness and connection doesn't come so easily for all my clients, and that's OK. We can still work with premovement. In RMI, we are trained to work with where a client is; it is essential to listen and draw from their language and experience.

I gently ask Sydney if she is open to finding stability from a different source other than by controlling her abdomen and pelvis. Is it possible to explore a kind of stability that also provides freedom of movement? She agrees to try.

We begin with Sydney sitting on a bench to explore spinal movement. With my touch and voice, I guide her in some gentle and small arcs and curls, sidebends, and rotations. I ask her to notice her experience, without judging or trying to fix her movement. I open my perception to the whole of Sydney moving in space—a kind of kinesthetic resonance. Then I add my biomechanics lens to see where there may be spinal restrictions. Based on what I am seeing, hearing, and experiencing, we move to table work.

I allow Sydney time to arrive on the table while tracking her breathing and autonomic. Initially, my hands-on work centers around easing her thoracolumbar fascia (TLF). I guide her through deep sacral breathing to mobilize the internal layers of her TLF and release her lumbar spine, as well as encourage fuller excursion of her respiratory diaphragm.

I spend some time working with fascial and joint mobilization in Sydney's feet and lower legs to elicit fluid foot motion. Thanks to Dr. Robert Schleip, (*Massage & Bodywork* magazine, September/October 2022, page 40) we now understand fascia to be our richest sensory organ. By contacting her fascia with touch and



Our gravitational response begins to shape in utero through the gravity response of our mother. Once we are born, our first months of life are spent in discovery through movement.

The Dr. Ida Rolf Institute offers RMI training in several formats, both nationally and internationally. RMI is woven throughout the RSI certification training, and is offered as a separate certification. Bodywork and movement professionals can take RMI courses as CE without attending the RSI training. For a comprehensive overview of the RMI curriculum and information about training, visit rolf.org/rolf_movement_certification.php.

asking for movement, I evoke tissue and sensorimotor plasticity.

Then, I explore active foot movement with her knees bent and feet on the table. I place a textured cloth under her feet and cue her to explore spreading and lengthening her toes, emphasizing the undersurface meeting the cloth. This heightens sensation and cultivates the proprioceptive nature of her feet and ankle joints. Godard speaks about feet that actually palpate the ground.

Sensation is how our body learns about the world around us. We are sensate gatherers, fishing for information. As Godard says, “we need to learn to fish for the good information,” that which provides the qualities of movement we want to encourage.

When Sydney stands, she says, “Wow, I really feel the whole ground under my feet.” I love that she says “whole ground.” It speaks to a quality of spaciousness.

I notice that the natural lordosis in her lower back has returned, and she seems more centered over her base of support, less back on her heels. She says she feels longer, and more in touch with the ceiling. “Where was I before?” she asks. When she walks, she “feels as if she is gliding around the room and that her back is less stiff.”

This is all good, and she could leave now; we both would be happy with the session. But I know I need to give her some tools for working with her premovement, especially knowing she will go back into her world and likely meet the same stress triggers.

Sydney and I explore a different premise for her premovement. I guide her to feel the ground through the soles of her feet and tune into the space around her as a natural lengthening and orienting response before she steps. Instead of sinking, her whole body appears to lengthen and blossom in two directions, toward the earth and sky. This orientation process has a different quality than a command to stand up straight. It has a quality of fluid connectedness.

Spatial orientation is a new concept for Sydney. In her yoga practice, she is accustomed to thinking about her head in relation to her body. I am asking her to engage her head as a spatially sensing part of her body.⁵ Explore seeing

with a wide lens; allow the sounds of the birds to lift your head. Sydney likes brushing the back of her neck with an upward caress to give her the feeling of her head floating upward.

By evoking spatial orientation through our senses, we enliven our vestibular system. By tuning into the sensation of the pressure of our feet meeting the ground, we enliven the vast network of proprioceptors in our feet and ankles. By balancing our focal vision with our peripheral vision, we release set patterns of visual focus. This is especially important in our digital age.

Sydney repeats this orienting process several times slowly, and then more quickly, until she is able to build and feel the new premovement coordination. There is a beautiful moment when her first step follows from the new premovement—and informs all the steps that follow. She notices that this changes the quality of her gait.

Each time, I encourage her with my words and affect. We should never underestimate the vulnerability involved in shifting these primary patterns; a warm, accepting, encouraging environment is essential.

Once she has some experience with the new coordination, I ask Sydney a question: “What is the first thing you would do to return to your other pattern?” She makes a slight tucking action with her hand and that is good enough. She doesn’t need to go any further; I see that she understands.

Shifting our premovement, like other mindfulness practices, takes practice and time to integrate. It is a process of unlearning our learned responses. Sydney describes how she will consciously practice her new premovement outside during her frequent walks in a nature preserve so she can feel the space around her as especially inviting. Also, she agrees to work with a soft ball to cultivate open, pliable, and sensing feet as support for her back.

Premovement is a dynamic multilayered process shaped by deeply wired coordinative patterns, including our gravity response, along with our perception of our current internal state and external conditions. It shapes movement and behavior. By bringing our largely unconscious premovement to consciousness, we have the opportunity to create a resourceful premovement anchored in our body’s present-time sensory connectedness to the world around us. Through cultivation and practice, we refresh our premovement process so that it integrates into our coordination.

Learn More

For a comprehensive discussion of core stability, read Aline Newton, “Core Stabilization, Core Coordination:” Part 1: <https://alinenewton.com/pdf-articles/core1-3.pdf>
Part 2: <https://alinenewton.com/pdf-articles/core4-7.pdf>

This is a description of a whole session centered around premovement with a client who has already cultivated a high degree of sensory awareness. Sometimes my work with premovement is simple, brief, and layered into the session. Any movement transition is a good moment, such as when a client goes from sitting to standing.

CORE STABILITY FROM A TONIC FUNCTION PERSPECTIVE

Many of you are likely familiar with the 1990s seminal work of Carolyn Richardson and her team of Australian physiotherapists in upgrading our understanding of the mechanisms of core stability and low-back pain rehabilitation. Richardson’s research showed that low-back pain and dysfunction is more likely derived from inadequate recruitment and faulty timing of the intrinsic spinal stabilizer system than from deficiency and weakness in the global muscles.⁶ This spinal stabilizer system refers to the integrated corseting action of the transversus abdominis, internal obliques, and multifidus muscles, which should automatically engage before a person moves, picks up a heavy box, or twists to reach into the back seat, otherwise injury can occur.

Richardson’s rehabilitative program differentiates strengthening coordination of this intrinsic spinal stabilization strategy from a global muscle strengthening strategy involving the rectus abdominis, external obliques, and erector spinae. Her research found that too much development and activation of global muscles interfere with the proper timing and recruitment of the local stabilizers.

When we organize our orientation to gravity by bringing awareness to the sensation of our feet meeting the ground and enlivening our vestibular system by giving attention to the space around us, we establish a sense of two directions, which automatically invites the intrinsic stabilizer system to work before the more voluntary global muscles.⁷

Sydney's effort to support her low back by controlling her abdomen and holding her pelvis in place meant her global muscles interfered with the timing and recruitment of her intrinsic stabilizing system. Unknowingly, she was interrupting the stability her lumbar spine needed. By consciously practicing her new premovement, Sydney is training a new coordinative pathway—one that engages and strengthens her natural core stabilization system. She is also expanding her perception about support coming—not just from the inside, but also from connection to the world around her.

CONCLUSION

Dr. Rolf's legacy continues to grow and evolve, inspired by her vision of gravity's potential as a healing force, and shaped by ongoing expansion of our understanding in the field of neuroscience. For simplicity, it can be seductive to reduce her work to a fascia mobilization technique. However, doing so profoundly understates her vision and her contribution to the evolution of human potential. Throughout her life, Dr. Rolf engaged in movement-oriented practices that facilitated embodied knowledge—the kind that comes from sensory experience and awareness. It is clear that by engaging Aston and other early RMI pioneers, Rolf recognized and was committed to expanding her life's work to include a basis for somatic movement, understanding that in order to enhance human functioning, one must address the body as a physical process and as a subjective process of lived consciousness.⁸ Rolf Movement Integration reflects an understanding of the essential role that patterns of gravity orientation, perception, coordination, expressivity, and nervous system regulation play in determining lasting shifts in posture and function.

Inspired by Rolf's work, Godard applied his scientific knowledge and movement expertise to clarify and further articulate the central role that gravity plays in the dynamics of human functioning. By elucidating his theory of tonic function, Godard presents a foundational basis for a comprehensive somatic movement curriculum, one based in the human response to gravity. This article briefly

explores only two aspects of Godard's work: premovement and core stability. There are many more. I hope you will follow the links included to deepen your understanding of these topics and discover other concepts, embodiment experientials, and applications of RMI. **m&b**

Notes

1. Rosemary Feitis (ed.), *Ida Rolf Talks About Rolfing and Physical Reality*, (Healing Arts Press, 1978).
2. Kevin Frank and Lina Hack, "Interview About Gravity Response Model," *Journal of Structural Integration* (2022).
3. Aline Newton, "Basic Concepts in the Theory of Hubert Godard," *Rolf Lines* (March 1995): 35–43.
4. Aline Newton, "The Lived Experience of Gravity," 2022/2023 *Yearbook of Structural Integration*: Volume 18.
5. Kevin Frank and Caryn McHose, "A Head that Belongs to the Space," *Journal of Structural Integration* (March 2021): 35–42.
6. Aline Newton, "Stabilization: The Core and Beyond," in *Dynamic Body Exploring Form, Expanding Function*, ed. Eric Dalton (Freedom From Pain Institute, 2011).
7. Newton, "Stabilization: The Core and Beyond" in *Dynamic Body Exploring Form, Expanding Function*.
8. Scope of Practice. International Somatic Movement Education & Therapy Association website: <https://ismeta.org/about-the-profession>.

6 Rebecca Carli-Mills is a Certified Advanced Rolfer and has served on the Dr. Ida Rolf Institute Movement faculty since 1994. She is a past chairperson of the Rolf Movement faculty and International Somatic Movement Education and Therapy Association (ISMETA) board member. Her understanding of gravity and human movement potential has been enriched by her long-time studies with somatic movement educator Hubert Godard. Carli-Mills draws from her training in craniosacral, visceral, neural, energetic osteopathy, and various forms of somatic movement studies. She maintains an active teaching schedule and clinical practice in RMI and RSI. Her mission is helping clients and students find comfort, agency, and joy moving through daily life. Contact her at rebecca.carli.mills@gmail.com.

"Rolfing" is a registered trademark and designates the Rolf Institute's brand of structural integration, the discipline developed by the late Ida P. Rolf, Ph.D.