The Rolfer's View of Chronic Low-Back Pain

by Mary Bond
Photos by Renata Robb

"What we are doing here is, we are trying to learn how to see."

—Ida P. Rolf[1]

The above statement encapsulates Ida Rolf's life's work. Her vision was that the human body interacts dynamically with the earth's gravitational field and that this interaction can be beneficial or detrimental, depending on the organization of physical structure. It was her purpose to share that vision with her students. She taught that structure and function are interactive; function is movement and movement is behavior. If her students could under-

stand this and, further, recognize that "the body is a plastic medium,"[2] then they would be equipped to touch people in ways that would balance their structure, perfect their behavior, and, incidentally, relieve them of chronic pain. Some tall order.

Looking back on it from the perspective of Rolfing's evolution in the 20 years since Ida Rolf's death, many of her views seem idealistic and even arrogant. As a school, The Rolf Institute no longer espouses the view that balance equates with symmetry, that fascial relationships are the sole determinant of structure, or that physical balance automatically produces mental and emotional equilibrium. But Dr. Rolf's great insights about the relationship of structure and gravity and about the body's essential plasticity continue to stimulate fertile inquiry into the nature of human functioning. Her ideas are a rich resource for body therapists of all types in their quest to relieve their clients' chronic pain.

Ida Rolf's message was: observe your clients' bodies. If therapists could learn to assess patterns accurately, then their own curiosity and inventiveness should direct them along her pioneering road and teach them ways to facilitate balance.

The purpose of this article is to offer a Rolfer's perspective of some typical structural and movement patterns that contribute to chronic, nonpathological low-back pain. Clients with pain of this nature get temporary relief from interventions such as myofascial work, therapeutic stretching, trigger points, and energy balancing, but such clients keep coming back with the same complaint. The following sections:

- identify some common movement habits associated with low-back pain;
- correlate these habits with their typically associated structural patterns;
- examine the posterior pelvis pattern;
- discuss ways to help the client change a faulty pattern;
- introduce movements to teach clients to help themselves.

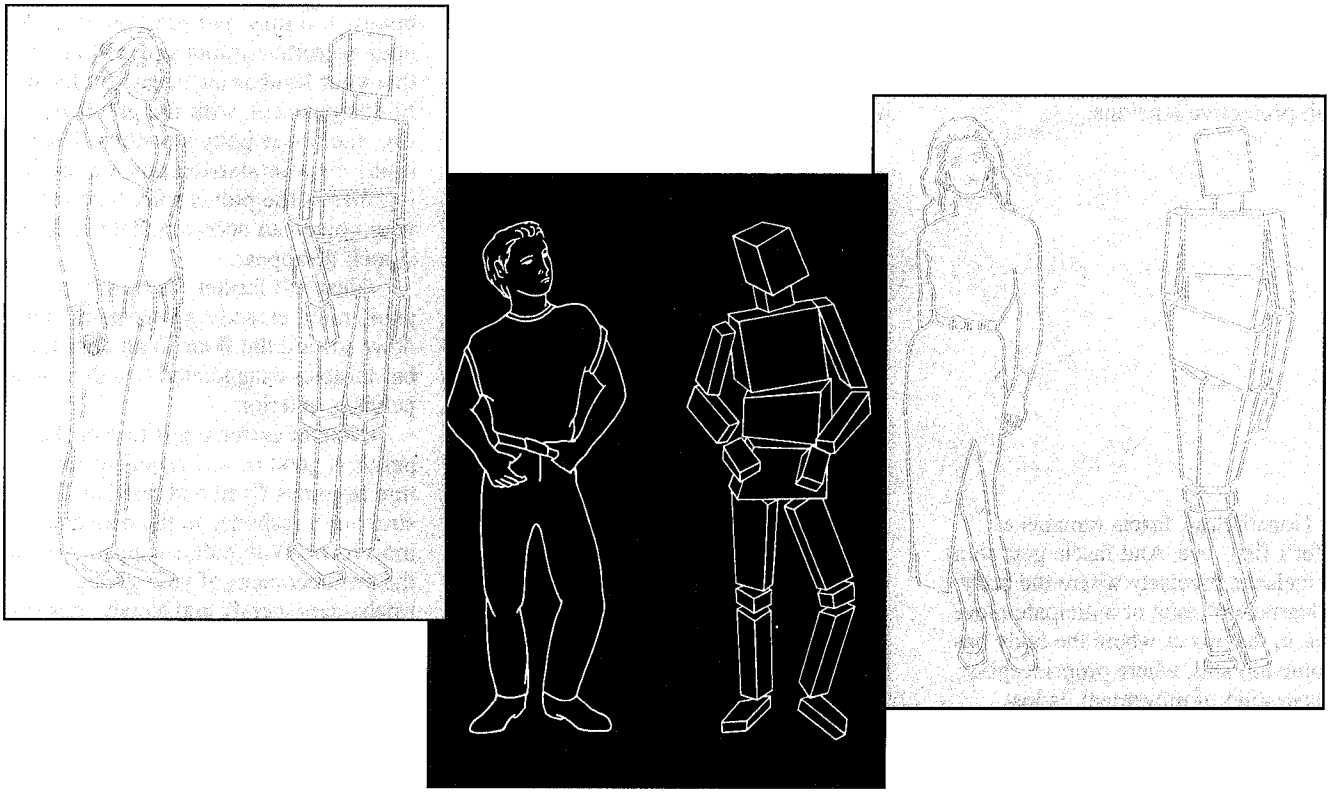
Definitions

Ida Rolf liked to distinguish between structure and posture. Posture means placement. It can be temporary or fixed and is brought about by the response to the context in which one finds oneself. So a posture can be viewed as an expressive response of one's structure. It evolves from the movements of one's physical and emotional history, both healthy and traumatic, and is perpetuated by body usage in daily life.

Structure is the deeper organization of soft tissue and bone to which one reverts, regardless of the current sequence of postures. The determinants of structure include genetics, ancestry, and culture. But structure is also influenced by postural patterns that become habituated, by habitual response to circumstances. So one's structure incorporates the history of one's postures and actions.

Movement is the natural state of your body. It is breath, blood, digestion, the movement of intercellular fluid, and the dynamics of behavior. Movement can be an impulse of perception like lengthening your neck to see or hear, an expressive gesture like shrugging your shoulders, or a practical action like walking, typing, or painting the kitchen.

While movement is the expression of your energy, it also occurs when you block expression, as when you stifle a yawn. We might conceive of habitual tension as an anti-movement—a movement that resists whatever movement a person is engaged in (e.g., the frozen shoulders of an overworked secretary). Tension can also be



Imagine a person's standing posture. Is it an anterior or posterior pelvic pattern? Do femurs turn inward or outward? Is the person more likely to swivel or sway during walking?

readiness for a movement that is not immediately necessary (e.g., the core-deep vigilance of an anxious parent). So one's movement history, from the most minute impulse to the grandest gesture, becomes habituated posture, which, in time, can alter structure.

Structure

But structure is plastic. This was Ida Rolf's second great insight. Her belief was that fascia was the "organ of posture,"[3] and that by addressing the fascia through touch, she could coax structure toward balanced relationship to gravity. Then everything else would follow—beautiful movement, graceful behavior, mental calm.

These days, fascia is just one of many issues Rolfers consider in their pursuit of structural organization. Rolfing Structural Integration has become receptive to a variety of influences—everything from cranial osteopathy, to sensorimotor reeducation, to developmental psychology (though certainly not every Rolfer is versed in every subject). sometimes we find that the things which Dr. Rolf assumed would automatically follow structural integration must sometimes precede it. A client may need help resolving personal trauma, for example, before his body is ready to relinquish protective tensions.

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Nonetheless, fascia remains a Rolfer's first love. And fascia gets short and inelastic precisely where the body has learned to resist or anticipate movement, in the places where the body has become too still, where proprioception, the sensation of movement, is lost. These are the same places where the structural elements—fascia and bone—lacking balanced, adaptive relationship, are rigidly splinted together.

Rolfing Structural Integration consists of a combination of myofascial contact and sensorimotor education with the aim of restoring structural balance and adaptiveness. The sensorimotor education aspect of Structural Integration was inherent in Ida Rolf's approach but took a back seat in her own presentation of the work. Today we recognize that unless a client can clearly sense changes in mobility, she cannot begin to form the new habits necessary to perpetuate the changes.

As movement is the key to structure, proprioception is the key to movement.

The Pelvis

Problems in the low back frequently originate from structure-movement imbalances as far removed as the feet or cranium. However, this discussion will be confined to the pelvic girdle and hip joints in relation to the lumbar spine.

The pelvis is the lowermost container of the viscera. It is a relay station that transmits motion between the legs and the lumbar spine. It is a complex set of structural relationships in its own right. Rolfing Structural Integration evaluates the pelvis from all three standpoints.

Let's focus on the relay function of the pelvic girdle.

Picture the scaffolding of the pelvic girdle as a pair of stilts holding up a deep bowl. The tops of the stilts have knobs which fit into hollows on two sides of the bowl. These ball- and-socket junctures give each stilt a wide range of angles from which to apply leverage between the ground and the bowl and, thereby, influence the tilt of the bowl.

At the same time the bowl is able to be suspended by a spring-like contraption attached to its back rim. As this spring swirls the brim of the bowl around, tilting it front, back, and sideways, the stilts, now dangling, change angles in their sockets.

The relationships of bowl, spring and stilts (pelvis, spine, and femurs) can be very complex.

The soft tissue—muscle and fascia—arranges the bony scaffolding. The habitual set of the stilts in the sides of the bowl (femurs in acetabulums) changes with the orientation of the bowl (pelvis).

Pelvic Exercise

Let's do this experientially, by going through several pelvic patterns. Take time to do the movements described in the following sections. The more opportunities you take to experience your own structure in action, the more interesting the study of anatomy becomes.

Move to a chair or bench with a firm seat. The seat height should allow your sit bones to be slightly higher than your knees. In other words, your thighs will be slanting ever so slightly down hill. This will let you sit in a comfortably upright posture, your weight settling just in front of your sit bones.

Now slowly rock your pelvic basin back so that your pubic bone comes up towards your belly button and your weight settles behind your sit bones. You may feel pressure through your sacroiliac joints and will notice that your lumbar curve has flattened. In this position, with the pelvis posterior, the upper body slouches. Then return to your starting posture, noticing that as the pelvis rolls forward, your spine can accommodate to let the slouch disappear.

Next roll farther forward over the pubic rami, extending your pubic bone down toward the floor. With your lumbar lordosis exaggerated like this, your pelvis is anterior.

Neither extreme position of the pelvis is good or bad except as the posture becomes fixed and restricts the structure's response to the demands of movement. With palms cupped around the protuberances of your greater trochanters, gently and slowly rock your pelvic basin forward and back, sensitizing yourself to the motion of your femoral heads in the acetabulae.

Stand and continue gently rocking your pelvic basin anterior and posterior. Notice how the difference in orientation of the hip joints affects overall posture. When the pelvis is posterior, the chest tends to be depressed and posterior, and

the femurs turn slightly outward. When the pelvis tilts anterior, as if the contents of the bowl were going to spill out onto the floor, then the chest comes forward, and the femurs rotate inward.

Study Yourself

The best way to learn to identify patterns in clients' structures is to study the structure closest at hand, namely your own. The more acute your awareness of the subtle relationships within your own body, the more readily you can identify patterns in others. This is true even when the others' patterns are distinctly different than your own.

Here's an example. Walk back and forth across the room several times. Walk in an ordinary way, as a pedestrian, with no attempt to refine or correct your gait. Once you recognize the familiar rhythm of your walk, turn your attention to your hip sockets. Simply notice how clearly you can sense the mechanics of your own movement. Notice the pendulum-like action of your femurs. You may again place your palms at the greater trochanters. Notice whether the forward and backward swings of each femur have similar range and force. Notice whether the forward flexion of the thighs are more dynamic than on the follow-through into extension, or visa versa.

These three actions—swing, swivel, and sway—are all components of normal locomotion; none is intrinsically faulty.

Now notice whether you have a tendency to rock from side to side as you walk. If so, you may sway your whole body from one foot to the other, or you may feel a sideways rocking in your upper torso. With the lateral sway pattern you are likely to feel forward action from the knees only, with diminished sensation of motion in your hips. This pattern is commonly associated with the posteriorly tilted pelvis.

Next, check your gait for rotation in your lumbrosacral area. In this pattern, the femurs move forward because of successive forward displacement of the ilia. If this is your pattern, you will feel the hip bones (ASISes) pivoting forward, swiveling your pelvis around the most anterior lumbar vertebra. An exaggerated version of this gait would look like a charade of Marilyn Monroe's walk. It is associated with the anterior pelvis type.

Swing, Swivel, and Sway

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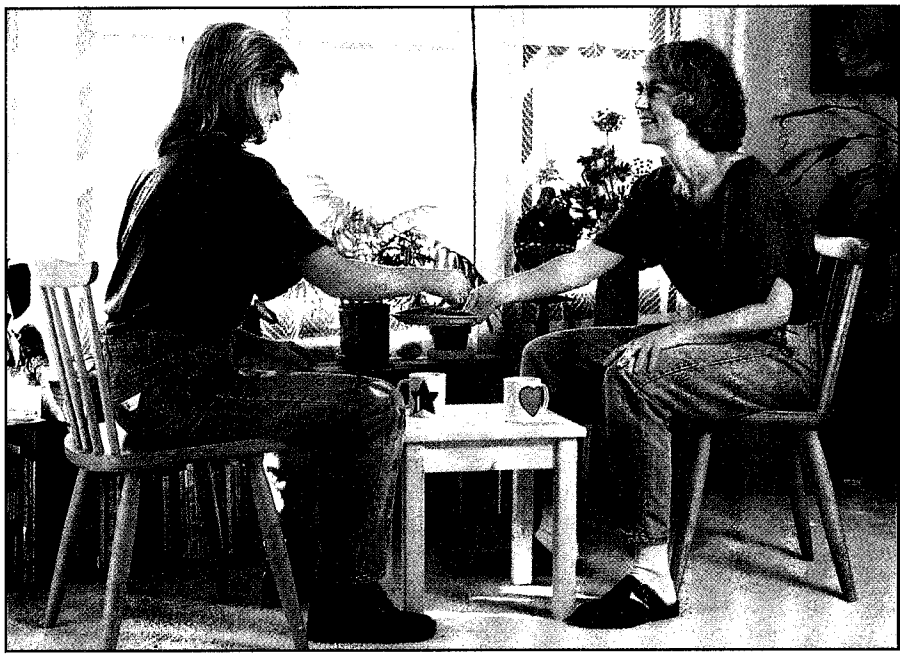


Sitting too far on her sit bones, Mary Bond (right) bends at the waist. The depression of her chest rolls her shoulders forward and puts strain on her cervical spine.

The problem comes when one of these motions predominates or is unavailable.

To reduce pelvic posture to two types and hip joint action in gait to three, is clearly oversimplification. Pelvic configuration involves complicated mechanics of the sacroiliac and lumbosacral joints. Locomotion is a complex affair that involves the whole body, head to toe. The bowl-stilt-spring image elucidates only the simplest mechanical relationship between pelvis and lower spine.

So far you have observed that the anterior pelvis is associated with an exaggerated lumbar curve, and the posterior pelvis with a diminished lumbar curve. And you can recognize a typical walking pattern for each configuration. Next you can identify the muscles which strain the fascia in each pelvic pattern.

Return to a neutral sitting position and then actively roll your pelvis back—not just letting yourself collapse- so you are again sitting behind your sit bones. By going slowly you can sense the deep rotator muscles pulling the back of the greater trochanter medially towards the ischial tuberosities and rolling the femurs outward. You can feel the area around the sacrotuberous ligament and the proximal attachments of the hamstrings shortening. You can also sense shortening of the iliopsoas.

Return to a neutral sitting position, and then actively draw your pelvis into the anterior posture. You will feel the rectus femoris tighten, the iliacus pulling the brim of the pelvis forward and down toward the lesser trochanter, the adductor tendons deep within the groin shortening and, along with tensor fascia lata, rotating the femurs inward.

If you assume these exaggerated patterns while walking, you will experience the ways in which the orientation of the pelvis drastically affects locomotion.

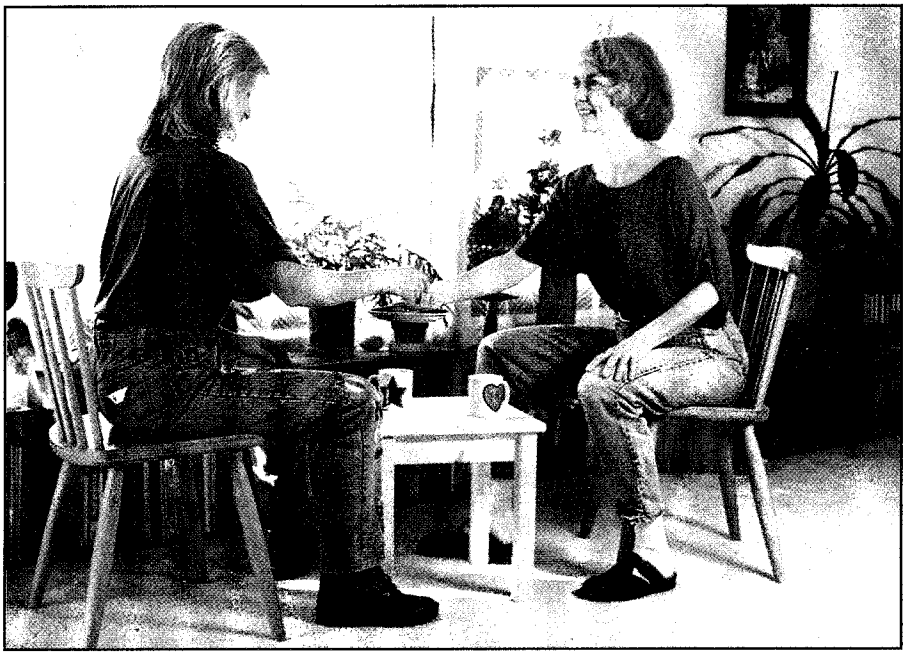
Bending-Over Pain

Because mobility of the hip joints directly affects the lumbosacroiliac area, ordinary activities which involve bending over will exacerbate low back pain to the degree that the client's hip joints are restricted in bending.

To sense this relationship in your own body, sit as you normally would when working at a desk and then reach forward as if to get an object an arm's length away. Study the movement you just made: Did you reach out by rolling forward across your pelvic floor with motion in your hip joints? Or did you keep your pelvis fixed and double over at the waist? Clearly, motion through the hip joints puts less strain on your lower back.

Paradoxically, free use of the hip joint can be available without being habitually used. Athletes and dancers, for example, with excellent hip coordination, are as likely as the rest of us to underuse the hip joints in daily activities. A reason for this paradox is the correlation between lack of sensation and inhibited motion. Not moving something keeps you from sensing it.

There are many reasons, beyond the scope of this article, that restricted hip joints are a pattern in North American culture. Sensitive bodyworkers are aware of the energetic and emotional



With better support through her pelvic basin, Bond releases her hip joints as she reaches forward.

pain that can be contained in the pelvic girdle. If sensation in the pelvis is damped, the person will fail to include the hips as they bend over in everyday tasks, opting to overuse the spine, instead. So even when physical therapy, chiropractic, massage, or other interventions have achieved temporary relief of low-back pain, the client who lacks sensation in the pelvic girdle will reinstate the low-back problem through faulty coordination. For such clients, self-awareness is clearly a critical part of the healing process.

This emphasis on freeing the hip joints does not mean that the spine should be held immobile in bending. A sensation of lengthening through the lumbar area should occur simultaneously with the folding of the hip joints.

The pelvis is a multifaceted construction that is far more complex than any forward-backward tilting assessment implies. Indeed, the mechanics of the lumbosacroiliac area are such that some back pain clients may require specific osteopathic or chiropractic corrections. However, even when the spinal mechanics have been adjusted, the client whose hip joints are restricted will reinstate the spinal imbalance. Helping the client attain better awareness of her pelvic pattern will help her maintain the adjustments made by other health practitioners.

Pelvic Floor

The muscles that form a sling from the pubic bone to the coccyx are collectively known as the pelvic floor. When this area is foreshortened, drawing the coccyx closer to the pubic bone, the fascial network between the pubic rami and the greater trochanter is also tightened, effectively securing the legs more tightly into the hip joints.

You can feel this for yourself if you once again sit in a neutral position. Sit in front of your sit bones so that your weight settles down through the tops of your hamstrings. Rest your feet on the floor directly under your knees. In this position you have a moderate lumbar curve and good support for your spine and diaphragm. Notice the comfort level of your breathing in this posture.

Then imagine your coccyx coming closer to your pubic bone. This will draw your pelvis somewhat posterior, bringing your weight back onto your sit bones, and adding some tension in the lower abdominal area. Be clear that this is a different movement than rocking your whole pelvis posterior as you did in the earlier section when you were exploring the hip joints. In this case, the movement takes place from more intrinsic muscles. Notice what happens to your breath in this posture. You'll sense yourself constricted through your central core, and find that your breath is not as full as before. Also notice that your feet seem less in contact with the floor.

Now imagine the tip of your coccyx unfolding back, away from your pubic bone, lengthening your pelvic floor. Do this in very slow motion. You are making more room in your pelvic floor, front to back. It makes no difference that the little coccyx bones cannot actually do this. The visualization—known as ideokinesis—causes the appropriate neuromuscular response. Sense the improvement this makes in your breathing and in your overall posture. Note that your feet are once again helping to support you as you sit.

The pattern of tucking the coccyx under may be present in either anterior or posterior pelvises, but is more problematic with the posterior pattern. The habit is associated with responses requiring effort. For an illustration of this pattern, picture a weight-lifter hefting a heavy barbell.

Once aware of the tendency to constrict the pelvic floor, many people realize that they do it frequently in any circumstance that requires use of will. A massage therapist may brace her coccyx in this manner in an attempt to feel grounded. However, the pattern actually accomplishes the opposite: when the pelvic floor is compressed, associated fascial structures relay tension to the soles of the feet, rendering them less able to sense the floor.

This discussion should not be mistaken to imply that the pelvic floor musculature should lack tone. It should, like any muscle, be free to lengthen and to contract powerfully, which it cannot do if it is in a state of constant tension.

Posterior Pelvis

The posterior-pelvis pattern is frequently left unaddressed because it is not recognized as a problem by healing practitioners. This is due to the myth that the spine should be straight. In fact, the cervical and lumbar lordoses of the spine permit us to be upright as a species. Further, they give the spine its resilience, its capacity to expand and contract with movement. Correct assessment of the spine is "not in its curvature but in its quality of movement."[4] Nonetheless, therapists and exercise teachers frequently have clients flatten themselves against a wall and prescribe as therapeutic the intent to maintain this position.

The posterior pelvis has been neglected because of focus on correcting its opposite, pronounced lumbar lordosis. Physical trainers, from the junior-high coach to the exclusive personal trainer, instruct everyone to tuck the buttocks under. This correction is bad enough for the anteriorly tilted pelvis, imposing an alien postural tension on top of the inherent structure. But the injunction to "tuck the butt" is a potential disaster for the posterior pelvis, forcing the too straight lumbar spine further into dysfunction.

Another reason for not recognizing the posterior pelvis as a problem is that our collective therapeutic eye is drawn to the upper body slouch that the posterior pelvis causes. We see those rounded shoulders and depressed chest and the collective cry is, "Get those shoulders back." For a person with a posterior pelvis, retraction of the shoulders displaces so much weight behind the pelvis that unless the head projects uncomfortably forward, the body would topple over backwards. Yet a slouching posture can be corrected when the posterior pelvis is encouraged to roll slightly forward.

Abdominal strengthening exercises—modified sit-ups—are commonly prescribed to patients with low-back pain. Again the exercise prescription takes the posterior pelvis further into its dysfunctional pattern. Furthermore, abdominal exercises have been shown to cause cocontraction of back muscles in people with low-back pain, making the back muscles all the tighter.[5]

Even Dr. Rolf was guilty of ignoring this pattern. In her attempt to teach the coordination of lumbar lengthening with hip flexion, she admonished everyone, regardless of pelvic configuration, "Get your waist-line back."

Practical Action

One of the most demoralizing aspects of low-back pain is its affect on putting on

Julie Beck's pelvic floor is compressed as she initiates the "folding micro-squat." This keeps her pelvis too posterior and makes her bend at the waist, straining her lumbar spine.

your pants. By breaking this action down into its component movements you will find that correcting faulty movement habits of the pelvic girdle will frequently eliminate the discomfort.

Standing on both feet, perform a very slight knee-bend—a micro-squat. Let your knees, ankles, and hips all bend at the same time. Explore the movement several times, in slow motion. Cup your palms around your greater trochanters to make sure that your hip joints are opening. Check that your coccyx is not tucked under. This does not mean you should exaggerate your lumbar lordosis. The lengthening of the pelvic floor is a very localized sensation.

Also, try hooking your fingertips under your sit bones to check for independence of motion between the ischial tuberosities and the femurs. If the pelvis is fixed in a posterior pattern, the sit bones will seem stuck to the backs of the thighs-held there by the proximal hamstring attachments-and you will perform the knee bend without flexing the hip joints.

Once you have the feeling of ankles, knees, and hips folding simultaneously, add a slight forward flexion of your lumbar spine. Do this without tucking your coccyx under. Try this several times. It's the motion of bending over at the bathroom sink.

Now try the folding microsquat while shifting your weight onto one leg and lifting the other as if you were inserting your foot into a trouser leg.

Patterns Through Touch

Once you have observed a client's structure and think you understand where his movement is inhibited, you can use the massage skills you already have to assist in releasing the shortened myofascia. (Refer to the discussion of muscle involvement in the section on the pelvis.) You need to concentrate around the greater trochanter—along the front surface—if your client's pelvis is anterior; towards the posterior attachments, if the pelvis is posterior. To do this, position your client sidelying. Other areas of focus are the ischial tuberosities and the crest of the ilium, depending on which pattern being addressed.

Ask the client to be attentive to the area being worked on. Once she has sensed release of the myofascia, invite her to explore movements of the hips and pelvis and to report what she feels. She can remain on the table to do this, or can sit or stand and explore the movements introduced in this article. The client's reportage of what she feels is more pertinent to her self-healing than is any observation you might make about improved function. As a client uses her own words to describe changes, she is charging her motor memory banks with healing data.

This approach requires that therapist and client be willing to interrupt the continuity of massage treatment. It also requires some inventive drap-

With her coccyx free, Beck retains her lumbar curve as she raises her leg by releasing the hip joint. By letting her supporting knee bend and folding at the hips, she reduces strain throughout the length of her spine.

ing, or putting on enough clothing that the client can be comfortable exploring movement. (Structural Integration practitioners generally conduct sessions with clients wearing bathing suits or underwear.) If interrupting the flow of work is unacceptable, you may opt to do your structural-movement intervention at the end of your session, as a separate educational experience.

As you observe the client having difficulty with a movement, and listen to his report of sensations in doing it, you will gather information that will direct your hands to the next intervention.

The client's release of myofascia can be accompanied by strong perceptions and emotions. These experiences in themselves do not insure structural change, nor does their absence mean that change has not occurred. Permanent structural change takes place only when the client perceives a changed relationship to gravity (though she need not describe it as such), and can embody that new relationship through changed movement patterns. Usually she needs some guidance with this.

Client Self-Help

The explorations introduced in the preceding sections of this article were intended to clarify the relationship of hip joints and pelvic floor to the lower back. Use the same explorations to teach your clients balanced ways to sit and to bend over.

Let the client repeat each process slowly a number of times, back and forth, to sense the difference between the old pattern and the new, and to let the movement become easy. Have the person describe differences in posture and breathing in her own words. These words anchor the improvement, and inspire her to devote the attention necessary to sustain the new habits.

Teach clients about appropriate chair height and about sitting slightly forward of their sit bones. Have them explore motion in their acetabulae, and notice how a pelvis that is too posterior contributes to slouching. Let them discover whether they bend over by using their hips or by folding in at the waist. Teach them the micro-squat and show them how to put on their trousers.

Addressing the client's locomotion involves understanding coordinated sequential motions from head to toe. It is best to approach it gradually.

But not all at once. Few clients would be able to integrate all of the foregoing explorations in a single session. For some clients, a single new sensation is plenty of homework for one session. With experience, you will learn to gauge the right amount of education for each client.

Walking

Awareness of swing, swivel, and sway in walking was included to help you begin to see the relationship of postural patterns and movement. Addressing the client's locomotion involves understanding coordinated sequential motions from head to toe. It is best to approach it gradually and in increments. Walking is seldom recognized as a phenomenon of self-expression. To change one's walk authentically involves changes in one's whole being.

When walking is addressed directly, many clients become overly concerned about the right way to walk. The therapist who is a novice in seeing patterns should focus on local activity, like sensation and coordination of the hip joint.

If the client can make a definitive shift in the mechanics of bending, chances are that that shift will positively affect gait, as well. Focus on teaching sensations of easy motion, letting the components of gait accumulate over time. A premature attempt to address locomotion can only result in a walking pattern that feels unauthentic.

Seeing Is Believing

While ostensibly about movement interventions that can help clients with chronic low back pain, the ulterior purpose of this article has been to inspire the massage therapist to add visual assessment to her therapeutic tool box. If the therapist begins to regard posture as micromovement that has congealed in the fascia, then she can approach structural issues as failures of movement.

Acquiring the ability to see the body's stillness and movement requires the curiosity of a sleuth, the patience of a tracker. The first place to practice is your own body. Begin simply and humbly with this question: "What's not moving?" The rewards in the answers are great.

■■■

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Resources

1. Informal remark in a class, quoted by Nicholas French in *Rolf Lines*, 1997, Vol XXV, No. 4, p 17.

2. Rolf, Ida P., *Rolfing: Reestablishing the Natural Alignment and Structural Integration of the Human Body for Vitality and Well-Being*. Rochester, VT: Healing Arts Press, 1989, p. 94.

3. Rolf, Ida P. *Rolfing and Physical Reality*. Rochester, VT: Healing Arts Press, 1990, p. 124.

4. Feitis, Rosemary, and Schultz, R. Louis. *The Endless Web: Fascial Anatomy and Physical Reality*. Berkeley, CA: North Atlantic Books, 1996, p. 109.

5. Janda, V., "Muscles as a Pathogenic Factor in Back Pain," in *The Treatment of Patients*. Christchurch, New Zealand: International Federation of Orthopaedic Manipulative Therapists, 1980, pp. 2-23.