The Pelvic Lift: Theme and Variations

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Ida Rolf's pelvic lift is familiar to all Structural Integration practitioners as a primary integrative tool of our work. This article will discuss the history and purpose of this intervention and explore some alternative ways of teaching it for client self-help.

What's In A Name?

If you ask someone outside our community to perform the movement of a pelvic lift, what you will see is a strong upward thrust of the pelvis and active engagement of thigh, buttocks and abdominal muscles. A Google search for "pelvic lift" yields a half million entries. The first webpage listed suggests that a pelvic lift is "the most efficient route to tighter abs" according to a 2001 report of The American Council of Exercise Fitness. On the next page, a yoga version of the pelvic lift called bridge pose is meant to "loosen frozen shoulders, build up your quadriceps and develop that famous 'yoga butt'". Sandwiched between these pages and the "The Bootie Lifter" is John Cottingham's research, first published in the Journal of the American Physical Therapy Association: "Effects of Soft Tissue Mobilization (Rolfing Pelvic Lift) on Parasympathetic Tone in Two Age Groups".¹ While the Rolf pelvic lift has the distinction of being entry number five among 500,000, the mass market definition of "pelvic lift" may indicate that the SI community might well consider new terminology for this intervention.

Amy Cochran and Physio-Synthesis

What many Rolfers have come to call "Rolf Yoga" (this includes arm rotations, leg hinges and the pelvic lift) was adapted by Ida Rolf from exercises she learned from osteopath Amy Cochran in the 1940's. Cochran had developed a system of exercises using the floor as a reference for training upright posture, an innovative idea at the time. What she initially explored as an adjunct to osteopathy developed into a system for reconstructing physical structure through precisely controlled movements. In the early 1930's Cochran had traveled through Europe sharing her findings with professionals in various fields of medicine whom she impressed with the implications of spinal posture on the endocrine and nervous systems.² Cochran's exercises were intended to develop what she called the "Central Line of Power" which was represented as the intersection of the frontal and sagittal planes of the body. The "inner core of support" involved the function of the muscles nearest the bony structure as contrasted to longer muscles near the body surface. (Here, surely, is the genesis of Ida Rolf's concept of "core" and "sleeve".) Cochran's technique involved rehabilitating support of ligamentous and deep muscular systems by releasing tension in some muscles and increasing it in others.³

Amy Cochran's work failed to develop and spread as Rolfing® did. Physio-Synthesis is currently taught in a fitness center in Texas, and by a teacher in California, Ida Thomas, a student of one of Cochran's protégés. Thomas wrote a training manual on the Physio-Synthesis technique that she published in 1998.⁴ Her presentation conveys the sense that she has faithfully adhered to Amy Cochran's original teachings. In it one can find descriptions of the pelvic lift as Ida Rolf must have learned it.

Here are Dr. Cochran's words expressing the purpose of the pelvic lift: "Now tilt and make a pelvic lift. That's the way we begin to take the sway out of the lower back. When you return from the neck down and retard the descent of the pelvis, you are developing the inside of the pelvic girdle and completing the correction of a swayback."⁵

To those of us who learned "Rolf yoga" directly from Ida Rolf, the instructions in Thomas' book have a familiar feel. Her first direction is to "move your waistline to the floor while curling your spine upward at its ends, like a canoe". This is to be accomplished by tilting the pubic bone upward and rolling the waistline back without lifting the pelvis off the floor. The back wall of the abdomen should ease backward and the abdominals should remain soft. The purpose of the next stage of the exercise is to match the strength of the muscles in the front and back of the spine. After repeating the initial tilt, one should press downward with the balls of the big toes and then lift the pelvis off the floor while leading upward with the pubic bone. Once the "inner muscles" (by this Cochran means the psoas) have "taken hold", one should be able lift the pelvis high enough that the thoracic spine clears the floor, but without any arching of the spine. This last detail is what distinguishes Cochran's exercise from the familiar lift as taught in gyms and yoga studios. To lift the spine without arching it is more difficult than it sounds. In the final stage, after tucking in the chin to fix the cervical region, the spine should be slowly lowered one bone at a time. The rectus abdominis muscles remain soft. The teacher

slides one hand under the student's sacrum as far up the spine as possible and then moves the hand down the spine, pausing to let each vertebra sink into her fingers. The practitioner's second hand presses back into the abdomen to encourage the spine to "sag".

Just Lift

My exposure to the ideas of Physio-Synthesis inspired me to re-read my notes from classes with Ida Rolf in 1969 and 1970. Dr. Rolf presented the pelvic lift both as a manual intervention and as an exercise for clients to practice at home, although she did not teach us the shoulder high lift described in <image>

Figure 1. Both Rolf and Cochran stressed the psoas diaphragm relationship as well as the importance of balance between the psoas and rectus abdominis. Illustration by Stephen P. Miller. Reprinted with permission from *The New Rules of Posture*, by Mary Bond (Rochester, VT: Healing Arts Press, 2007.)

Thomas' book. As a manual intervention the maneuver was intended to relax the lumbosacral fascia so that the lumbars could "fall back". It was also intended to sedate the nervous system. "A pelvic lift is always in order in an emergency," Rolf said, and of course, Cottingham's 1988 research, mentioned earlier, bore her out. Over and over my notes mention the Ganglion Impar⁶ in connection with pelvic lifts. That Dr. Rolf thought this bit of anatomy had more impact on function than was then recognized was a mark of her genius in recognizing the importance of pelvic floor balance to whole body integration.

Dr. Rolf was emphatic about the specific language to use in evoking the pelvic lift. You had to teach it just so. Here, as I remember it, is the litany:

"Just turn your tail under." Once the client had achieved this, you said, "Good."

"Now, *just* lift." You put your hands on the client's knees and instructed her to move the knees forward toward the feet to enable the lift. The emphasis on "just" was deliberate. This was how you made the client understand what very little effort was appropriate. At this point you slid

your hand under the sacrum and lumbars to work the tissue and help the client succeed in following the remaining instructions. "Now, *just* bring your waistline back." "And now, *just* let your tail go." "Good!"⁷

Modern Versions

These days, versions of the Rolfing pelvic lift run a gamut from direct release of lumbosacral tissue and easing of vertebral rotations to indirect craniosacral unwinding. Positioning and intent are more sophisticated than they were in the days when our only goal was to get the waistline to fall back. Through Jan Sultan's

External/Internal

model we've learned to imbue our touch with varying intention depending on the angle of pelvic inclination and degree of lumbar lordosis. For clients who exhibit posterior pelvic tilt with a flattened lumbar curve it no longer makes sense to encourage the lumbar area posteriorly. With such clients we may address the lumbars with a tonifying rather than soothing intention, and may find it beneficial to work with the hips

extended rather than with knees bent. We've also become more informed about vertebral rotations than we were in Ida Rolf's time.

Yet while our understanding of structure has evolved, the basic pelvic intervention has changed little from Amy Cochran's time. A fine description of the myofascial technique is to

be found in Michael Stanborough's text, "Direct Release Myofascial Technique."⁸ The

intervention differs only in the explicitness of the instructions from the technique as taught by Dr. Rolf. Stanborough's term for this intervention is "pelvic roll with lumbosacral traction". This change in terminology clarifies the intent of our intervention and distinguishes it from the objectives of other pelvic lift entries on the Google list. We might also consider the words "lumbosacral decompression" to describe an indirect approach in which the practitioner waits passively for tissue to soften. For teaching the movements as client homework we might simply call it "low back decompression."

Client Homework

As a Rolf movement teacher, I've spent many years teaching Rolf's exercise to clients for self-help. I'd like to share some observations that can clarify the process and also offer an innovation that turns our time-honored maneuver to an additional purpose.

My first step is to make clear to a client how the movements I'm teaching are different in purpose and execution from yoga or Pilates exercises they may have already learned. I like to explain why mobilizing the spine in this particular manner is essential to the goals of structural integration, and how it is applicable to their particular case. This helps clients value the exercise and avoid a tendency to think the movements are too subtle to accomplish anything. I frequently ask a client to notice how her usual version of a pelvic lift compresses the lumbar area.

I prefer to invoke the pelvic action from the feet rather than from the pelvis as Cochran and Rolf did. This approach helps clients connect the motion through the legs right away and lets the

> pelvic movement emerge as a sensory experience rather than as a "doing". By going slowly and adding sensory details in pace with a client's evolving proprioception, I avoid the confusion and even crises that can occur when a client practices this powerful exercise in the wrong way.

> Begin with the client lying supine, knees bent

and feet flat on the floor or table. Depending on the client's adaptability, heels and knees should be in line with the hip joints. If the hips are stiff, the feet can be wider apart. If a client has an inflexible thoracic kyphosis, her head and neck should be supported with a prop. The first instruction is to push the feet evenly into the floor. Sometimes I say, "deepen your footprint into the table" or a similar phrase that evokes a sensory response. At this point I have my hands placed very lightly against the client's tibial tuberosities and I comment, "notice how the pressure of your feet causes your legs to move forward into my hands." For many clients, that is enough to attend to on the first round of instruction. After a moment's rest we begin again: "this time, as you simultaneously press down into your feet and reach your shins forward into my hands, notice that your sacrum rocks back a little." Once they have felt the sacrum roll posteriorly, I ask them to lower the sacrum to the starting position without additional instruction. For many clients, that much is all I offer for a first lesson to take home and practice. All they're asked to do is to sense and value the connection between feet and sacrum. To add the lifting and lowering movements too soon tempts people to engage already overused muscles of the thighs and abdomen. In so doing they overpower the subtle sensations involved in mobilizing the deep structures of the pelvis. At this point, if I decide to intervene manually, I instruct the client to exaggerate the forward reach of her shins



Figure 2. Client position for initiating a pelvic lift. Illustration by Stephen P. Miller. Reprinted with permission from *The New Rules of Posture*, by Mary Bond (Rochester, VT: Healing Arts Press, 2007.)

enough for me to slide my hand under the sacrum for myofascial work or for indirect listening and balancing.

I've found that calling attention to the shins as distinct from the knees produces some important effects. If you say "knees", clients engage the thigh muscles more than necessary. In contrast, "shins" evokes a more balanced use of the thigh and hip musculature and psoas. It also creates a better connection through to the feet. The combination of pushing into the full surface of the feet and reaching through the shins invites decompression at the ankle that allows for talar glide. I've found it is also important to monitor how a client pushes her feet into the floor. If the feet are resting mostly on the lateral arches, the movement cannot be coordinated through the inner line of the leg. It is important to see that weight is distributed through the medial arches and that the distal phalanx of the big toe is grounded.

For a second lesson in developing the spinal decompression exercise, I repeat (and, if necessary, correct) the previous movements and then add: "lift only so far as you can without clenching your buttocks or closing your pelvic floor." Because of prior fitness training, clients tend to lift the pelvis high off the table. This involves tightening the muscles around the back of the pelvic floor, which immediately blocks connection to the feet.⁹

Now comes the meat of the exercise, the lengthening contraction of the iliopsoas. A lengthening or eccentric contraction is a gradual relaxation of a concentric contraction. In this case the client has contracted the psoas in lifting the pelvis, and now, by asking her to lower the spine sequentially, you are demanding a lengthening contraction of the psoas. Rather than returning it to its normal resting state—too short in most people—the procedure is meant to achieve a new and longer resting state.

I use whatever words produce a slow sequential lowering of the spine, such as: "maintaining the slight reach of your shins, begin to lower your spine one vertebra at a time." The first time a client attempts the lowering movement it is usually jerky, especially as they approach the distal end of the psoas. It is helpful to point this out to clients—they won't think it's important otherwise—and comment that the jerky phenomenon is due to their brain being unused to coordinating the muscle in this way. By refining this movement they are teaching the psoas, and therefore the lumbar area, to become more resilient, adaptable and supportive. On the next attempt at lowering the spine, invite the client to slow down when they approach the sacrum, picturing it as if made of rubber, or flexible like a dolphin's tail.

It is common to forget about the shins and feet as the client focuses on evoking the subtle movement of the spine. I find it helpful to keep my hands on the client's shins and to suggest that the shins are magnets gently drawing the thighs forward. This action establishes fixed points at the distal attachments of the psoas muscles which facilitates maximum coordination of the psoas in lengthening.

Sacroiliac Mobilization for Walking

The pelvic lift as Cochran and Rolf taught it evokes only anterior/posterior motion of the hips and spine. Physio-Synthesis exercises consist almost entirely of movements in the sagittal plane. Cochran seems to have assumed that if the core of the body were brought into balance, then appropriate movement would naturally occur. Thomas' book nowhere discusses human movement apart from performance of the exercises. There is no description of how everyday actions should look or feel. Ida Rolf stated often that balanced orientation of verticals and horizontals in the body was what produced the arcing of movement that was a hallmark of an integrated structure. And yet her instruction for "rolfed" walking consisted primarily of "Bring the top of your head up. Waistline back!" along with what she called "the magic sit" (bending the knees and straightening) to align the hinges of the legs and feet. She thought of walking in terms of the sagittal plane and did not seem to have been interested in the details of contralateral motion.

What we now understand through the research of biomedical engineer, Serge Gracovetsky¹⁰, and the work of Gael Ohlgren and David Clark of the Rolf Institute® is that efficient human gait requires motion in the horizontal and frontal as well as sagittal planes. According to Ohlgren and Clark, walking is a complex global motion of counter-rotating helices¹¹. Essential to this process is the anterior/posterior rotation of the innominate bones at the sacroiliac joints in sync with the reciprocal movements of the sacrum.

What follows is a combination assessment tool, manual intervention and movement re-

education process that I stumbled upon in trying to help my clients develop the movements of the pelvis necessary for integrated contralateral walking. For this purpose I found Rolf's pelvic lift essential but insufficient. To address motion at the sacroiliac joints I've modified the first part of the intervention. I'm sure I'm not alone in having experimented with this, but I have not

seen it described anywhere.

Alternating Sacroiliac Rocking

Having taught the basic motion of reaching through the upper shins, I then ask the client to repeat the movement with one leg only. Standing beside the client I have my right hand lightly on her left shin, and my left hand resting within the right side of the pelvic basin. As she pushes into the left foot I encourage her to let the movement translate diagonally upward so that her weight settles into the right sacroiliac area. After the initial experiment we repeat the action on the same side with the intent to



Figure 3. Students demonstrate hand positions for assisting a client with alternating sacroiliac rocking."

feel the movement travel upward through the pelvic floor and across the pelvis. We then try the movement in the opposite direction, right foot to left ilium. It can help for the client to picture the movement as a shallow "X" between each foot and its opposite SI joint. If the client is unfamiliar with the location of the sacroiliac joint, I tell her to aim for the dimples at the top of her buttocks. If she rocks too far laterally she will feel activity in the hip joint but will not mobilize the SI joint.

As we work, my hand placement is global enough to notice my client's tendency to tighten the abs or overly engage hip muscles. I can also monitor the relationship between the feet and pelvic floor and sacrum. Both of us will notice that the movement flows more readily in one direction than in the other. The client's coordination reflects imbalance in her pelvis and hips and, more than likely, global imbalances as well. Depending on what I feel, I may then intervene myofascially in the deep rotators, adductors, psoas, iliacus, QL, lumbar fascia or up or down the line as necessary. When we reassess the motion it should be in better balance. The

> alternating SI rocking can also be used to evoke balance between the two sides of the pelvis prior to intervening with a bilateral pelvic lift.

Alternating sacroiliac rocking evokes the natural walking movements of the innominate bones and sacrum. Once learned, a client can practice SI rocking as part of a whole program for evoking contralateral gait. It is important for her to understand, however, that while this movement in the supine position mobilizes a specific set of joints, it does not precisely mirror all the movements of the hips and legs in walking. As Ohlgren and

Clark have described

walking, each innominate bone rotates anteriorly as the ipsilateral foot and thigh swings back into toe-off. Another way of saying this is that when the hip is extended and the toes are pushing off, the innominate on that side goes into anterior tilt. When the knee comes forward into the next step, the pelvis goes into posterior tilt. The sacrum and lumbar spine should be able to respond to the rotary motions of pelvis and legs. With every step each femur rotates very slightly internally with weight-bearing and push-off and externally when that leg swings forward. If the hip joint is balanced and adaptable, the rotary actions of the femur do not interrupt the forward direction of the knee because of the way the femur is offset in the hip joint. The alternating rotation of the femurs results in a

clockwise and counterclockwise rotation of the pelvis as a whole at the same time that the innominates are swiveling forward and back. In the feet there is a subtle pronation to supination action in the tarsals as each foot moves from heel plant to push-off. During hip extension there is a subtle screw-home motion at the knee. Above, the thoracic spine rotates in tandem with the motions of the lumbar spine and sacrum.¹² Needless to say, "alternating sacroiliac rocking" is but a single puzzle piece within the spiraling jigsaw of walking. But for some clients it can be the key to activating integrated contralateral motion.

Despite my years of familiarity with the Rolfing pelvic lift, writing this article has put me in touch with how much I had taken it for granted. It has been useful to me to review my roots. I hope others will have found the journey useful as well.

Endnotes

- 1. Cottingham, John T. et al, 1988, Effects of Soft Tissue Mobilization (Rolfing Pelvic Lift) on Parasympathetic Tone in Two Age Groups, Journal of American Physical Therapy Association, Vol. 68, No. 3.
- 2. Cochran also met with psychologist Roberto Assagioli, founder of Psychosynthesis, who suggested the name for Cochran's work.
- 3. Thomas, Ida M., 1998, <u>Physio-Synthesis: Inner Muscle Balancing</u>, Verdugo City, CA: Thomas Publishing, p. 17.
- 4. Thomas, Ibid. The book is out of print. Thanks to Scott Pyeatt for lending me his copy.
- 5. Thomas, Ibid., p. 98.
- 6. Ganglion Impar is the fused terminus of the sympathetic chain located at the level of the sacrococcygeal junction.
- 7. My thanks to Rose Sher who confirmed my memory of this wording with her notes from a class with Dorothy Nolte to whom Rolf assigned the task of teaching her movement work.
- 8. Stanborough, Michael, 2004, Direct Release Myofascial Technique, London: Churchill Livingstone, pp. 84-85.
- 9. For more on this topic see: Bond, Mary, 2006, *Posture and the Perineum*, <u>Massage and Bodywork Magazine</u>, Evergreen, CO, Associated Bodywork & Massage Professionals, Vol. XXI, No. 5. Gracovetsky, Serge, 1988, *The Spinal Engine*, New York: Springer-Verlag; and
- Newton, Aline, 2003, Gracovetsky on Walking, Journal of The Rolf Institute, Boulder, CO, Vol. 31, No. 1, pp. 4-8.
- 11. Ohlgren, Gayle and Clark, David, 1995, Natural Walking, Rolf Lines, Vol. 23, No 1, pp 21-
- 12. Ohlgren, Gayle and Clark, David, Ibid., and Bond, Mary, 2007, *The New Rules of Posture*, Rochester, VT: Healing Arts Press, Chapter 9.