Structural Integration

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A Rolfer's™ Pelvic/Lumbar Joint Restriction Algorithm

An Interview with John deMahy

By Mollie Day, Certified Rolfer™ and Rolf Movement® practitioner

For ten years prior to training in Rolfing® Structural Integration (SI), Certified Advanced Rolfer John deMahy worked as a nurse in an emergency room (ER) trauma center. This experience gave deMahy an

acute understanding of how to create order in the midst of chaos. Later, as he began to study spinal mechanics through Rolfing SI, it was deMahy's ER experiences that led him to develop an algorithm – a chart of ordered tests and procedures based on the body's flow – for the treatment of joint dysfunction in the pelvis and spine.

Mollie Day: Before we discuss the details of your algorithm and its techniques, would you tell me how the method came about? What's the relationship between what happens in the ER and in a Rolfing session?

John deMahy: When someone is rushed into an ER in critical condition, there are a vast amount symptoms and information about the patient that have to be assessed and analyzed before you take action . . . now! In an auto accident you might be dealing with fracture, lacerations, bleeding, head injury, as well as a cardiac emergency. Life and death can depend on how fast assessments are made and treatments delivered. Algorithms, such as the Advance Cardiac Life Support algorithm, bring order into the chaos. These are sets of specific assessments, "yes" and "no" type questions, usually set up in a flow chart, to guide you quickly to the most effective treatment. As we know in Rolfing [SI], there is a hierarchical relationship in the body's structures. If you try to put someone's head on his shoulders without organizing the support in his feet and legs, it's not going to work. In the ER, you treat the wrong thing first and the patient might die. In Rolfing [SI], you treat the wrong thing first and you're not as effective in organizing the structure.

MD: So understanding the ER triage system helped to you to understand a system of order for joints in the pelvis and spine?

JdM: During my advanced training in 1989, Jan Sultan and Michael Salveson introduced me to the world of spinal mechanics – how the joints function. Watching them work, it was easy to see how this was going to radically change my Rolfing [work], which involved strictly fascial work at that time. I became totally engrossed in studying the spine and pelvis. Spinal mechanics can seem very complicated. I found myself spending more time of my session trying to figure out what was going on in my client's spine, than actually working. That was about the time I started remembering my ER experience, thinking that all my patients would have died had I worked this slow.

I realized that I needed an algorithm to navigate the spinal mechanics. I needed a tool to quickly organize specific assessments and treatments so I could get on with the business of structural integration. So I combed the literature for information, broke it down to digestible chunks and applied Rolfing principle to what I found.

MD: Why are the joints so important to the work? Why not just follow the "Recipe"?

JdM: The majority of acute low back pain is cause by or exacerbated by pelvic or lumbar joint movement restrictions. These restrictions are caused by a neuromuscular reflex, which occurs when the joint is pushed beyond its physiologic barrier. You might say the joint locks to keeps it from dislocating, but also from returning to its functional range of motion. These alterations in joint function not only cause pain but also a constellation of compensations, which can greatly alter the structural pattern. So a strategy that first addresses the cause of these compensation makes the goals of the Recipe easier to achieve.

MD: What is the hierarchical order of the algorithm?

JdM: *Foundation precedes mobility and mobility precedes locomotion*. So first we address [issues of] the foundational joints, which are the pubic symphysis and innominate shears. Second, when those joints are functional, we go to joints of mobility: lumbar facets and sacral-iliac joints. Finally, we address locomotion through the innominate rotation in the walking cycle, at the ilio-sacral joint.

MD: Would you give a clinical example of how a Rolfer could manage pelvic joint mechanics in this ordered way?

JdM: Let's use the example of a yogi with habitual low back pain. You discover that her sacrum is torqued and one leg appears shorter that the other. But, no matter how many times you try to balance it through fascia in the legs and pelvis or through sacral manipulation, it's torqued the next time you look. The sacrum appears to be completely unstable. In yoga there are many *asanas* that can put uneven stress on the pubic symphysis. With this setup, when an aggressive stretch pushes the pubic symphysis joint beyond its physiological barrier, the joint locks. So, a poorly trained or over-zealous yogi can easily find herself with a superior or inferior pubic symphysis restriction. In the algorithm-based principles of the body, foundation comes before mobility: The pubic symphysis comes first. But, in this example, the Rolfer [was] trying to solve a problem of mobility without establishing foundation, namely a functional pubic symphysis.

MD: What you're saying is that you can normalize sacral movement – the sacroiliac joint for example – but if the pubic symphysis is out then the sacrum will de-stabilize?

JdM: Correct, and sometimes it happens before your client leaves the office. Before the mobility in the sacrum and lumbars can be addressed, the foundation must be stable. The algorithm moves you quickly through assessments and treatments. Then you still have time address the Fourth-Hour line, the abdominals, piriformis, et cetera. Then you would want to do movement education to improve core stability to reinforce the symphysis.

MD: How do you fit the algorithm into a Rolfing session or series?

JdM: If I suspect pelvic or lumbar joint restriction, I will go through the assessments of the algorithm. If there are no joint restrictions, I will know in three minutes, the amount of time it takes to test the joints. If there are restrictions, it will take me fifteen to twenty minutes to bring a client through the whole algorithm. And I still have forty for the rest of the session. And I will get more accomplished in the time remaining: once the joints have returned to their normal movement pattern, the neural reflex is gone; joint inflammation and pain are quickly relieved or greatly reduced.

If someone comes in to your session, no matter what "hour" [of the series], if he is having joint restrictions in the pelvis or spine, what you're seeing is not the primary structural pattern. Compensations stemming from restrictions in the axial skeleton overlay the primary pattern. This could include things like leg-length discrepancies, rotations, and side-bends. If this is the case, and you go into your session without addressing the restriction, then you're wasting time chasing compensations rather than primary pattern.

MD: Would you give an example of how you look at the sacroiliac joint and how you present that in your manual?

JdM: The manual is designed as a resource to use during a session, while you are learning. The algorithm chart (see Figure 1) lies open on your desk, as a road map, guiding you through tests and results. It guides you to the specific restriction and suggested procedure. There is a page number at each step so that if you can't remember how a step is performed you can quickly go to the appropriate page. There you will find an image of the dysfunction, and/or a photograph and detailed description of the diagnosis and treatment.

Sacral-illiac restriction is detected with a seated flexion test. With the client sitting on the bench you place your thumbs bilaterally on the PSIS. Instruct the client to roll forward starting at the head with the pelvis moving last. Remember that the sacrum is part of the spine and should be able to move with the spine before engaging the ilium. So if one PSIS begins a superior movement before the other, the SI [joint] on that side is restricted. Then you would ask the client to lie prone on the table, to palpate the sacrum. Compare the sacral base in relation to anterior and posterior for rotation. Then compare the inferior lateral angles for rotation, then caudal and cephalad for side-bending. With this information in your hands the algorithm points out the name of the specific restriction and an effective procedure.

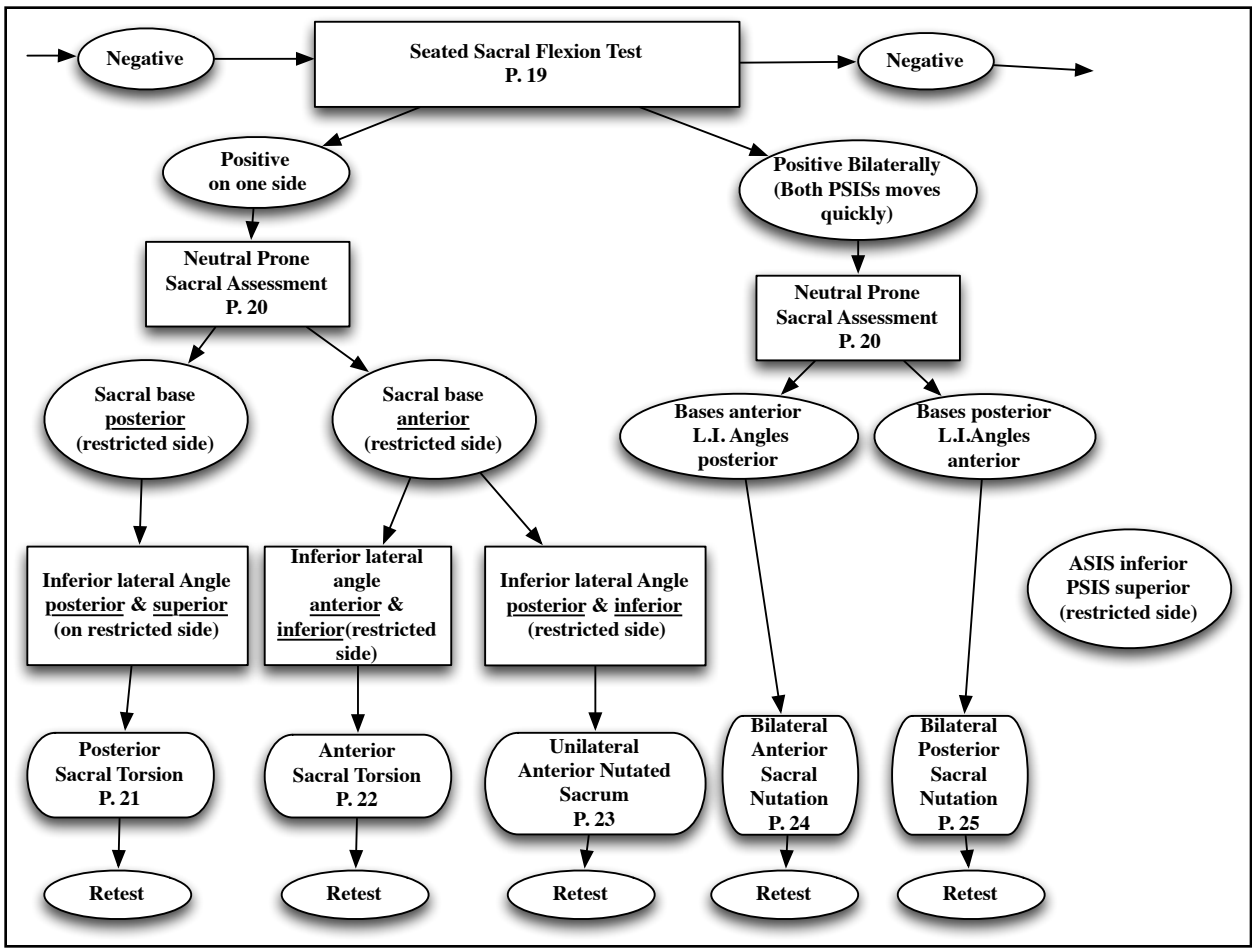

Figure 1: The sacral section of the Pelvic/Lumbar Joint Restriction Algorithm.

MD: What is the technique you use to mobilize the joint?

JdM: I use muscle energy techniques first developed by Fred Mitchell Sr. D.O., and I reinforce these techniques with principles of Rolfing [SI]. The technique works by stimulating a different reflex to temporarily override the reflex holding the joint. The client is moved into a position just before the joint restriction is engaged in every plane; flexion or extension, rotation, and side-bending. Then the client is asked to gently pull away from the restriction against an unyielding hold from the practitioner. When the client lets go a post-contraction relaxation reflex is stimulated. At that point there are a few seconds in which you can freely move the joint back into normal range. Once in normal range of motion, pain and inflammation are quickly reduced.

MD: You teach this work, so you obviously believe other Rolfers can benefit from it.

JdM: When you first start studying spinal mechanics, it can be overwhelming. You start looking at the sacrum or spine and think: *there could be anything wrong in there*! But when you learn the architecture of the joint, you see that there are only certain movements available in each joint. And when you study the architecture of the skeleton, you learn that there is a hierarchical order to the way joints function in relation to one another. To learn a strategy for handling that information, I created the algorithm. For me, it is beneficial in that it saves time and prevents confusion. I've tested it myself for eighteen years, and I've taught it to other Rolfers who are also using it effectively. One of the standards of scientific research is:

“Can what you’ve done in your laboratory can be reproduced in another lab?” This is a reproducible strategy.

There is a sense of confidence that develops as you become able to understand and explain why the client was in pain and what you are going to do to get [him] out of pain. I always ask my clients, “You have seen lots of practitioners, has anyone explained to you why you’re in pain?” The answer is usually no. So I pull out my models and explain it all. The sense of relief that you see in your clients’ eyes, when they finally understand why they’ve been hurting and how it is going to change, is very rewarding.

John deMahy, R.N., Certified Advanced Rolfer, began his career in emergency and orthopedics nursing. He has had a robust Rolfing practice in New Orleans since 1989. Greatly influenced by the work of Philip Greenman D.O., John is the author of Joint Restrictions in Structural Integration*. This text presents his simple and effective algorithm for the assessment and treatment of joint restrictions in the lumbar spine and pelvis. He is a graduate of the Rolf Institute® (1985) and Louisiana State Nursing School (1978). John taught kinesiology at the University of North Carolina Charlotte. He continues to teach continuing education in manual therapies as well as anatomy and kinesiology at various yoga teacher trainings.*

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