



R O L F L I N E S J O U R N A L

A newsletter section for Rolf Institute Members to share explorations on Rolfing: philosophy and manual technique as well as business aspects of having a practice

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THE RELATIONSHIP OF THE NERVOUS SYSTEM TO MYOFASCIA
AND ROLFING

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I think that there were some interesting points raised in Robert Schleip's article in the last Rolf Lines.

I would like to share one concept about the relationship between the nervous system and myofascia in the process of Rolfing.

I find it helpful to think of 'neuromyofascia' while I am Rolfing. I am especially interested in the relationship of the autonomic nervous system to myofascial release.

Michael Salvesson, in my auditing class taught about the way that the autonomic nervous system changes in a healthy person with increased sympathetic activity on the in-breath and increased parasympathetic activity on the out-breath. This is the basis of the concept of "vegal tone". (The action of the vegal nerve as parasympathetic response on the outbreath, lowers the heart rate in normally balanced people. You can observe this in a client by taking their pulse while observing their respiratory rhythm.)

Michael worked together for many years with Peter Levine. Peter's work inspired Steven Porges who was a guide to John Cottingham in his research project for the Institute. Steven uses a computer to calculate the difference of heart rate on the in-and out-breath over a five-minute period. This objectifies the measurement that we learned with Michael, and it allows for a quantification which is helpful in research.

John's research showed that people with good "vegal tone" responded well to Rolfing. For example, they relaxed on a pelvic lift and after a session, showed increased flexibility, as measured by greater range of movement.

People with low vegal tone did not show relaxation in pelvic lifts or gains in flexibility.

I remember hearing that Ida had a background in Yoga. In my own study of Yoga, I learned that the body (myofascia) lengthens and releases on the out breath.

I developed a model which says that in normal people, they have sympathetic activity on the in-breath and parasympathetic activity on the out breath. The connective tissue will stretch, lengthen, and release under slight physical pressure on the outbreath.

I find in practice, if I push on the in-breath, I do not get release in my client's myofascia.

In fact, if I push on the client's in-breath, I meet a resistance from their myofascia. This momentarily rigidifies my own spatial configuration. So, even when my client breaths out and is ready to release, I do not move into their body at the depth which is effective, but remain on the surface. I feel the resistance of their tissue as something "hard" all of the time.

This fact of my body rigidifying momentarily when my force meets a force of resistance is not easy to explain in words, but it is the reason that the Chinese martial artists, especially tai chi masters, can be so effective. If they can set up a ridge in their opponent, for a split second as "force meets force", then while the other person's mind and body are frozen in space and time, they have a free play to move in and attack.

If you want to be more consciously effective in your Rolfing, push only on your client's outbreath. Relax and let them hold you out on the in-breath. Push again on the outbreath. You will find you go as deeply as you want and get all the release possible in a short period of time with no effort on your part.

After a while, you can feel the changes in their tissue without needing to watch their breathing pattern fisually - the increased sympathetic activity, hardening the tissue on the in-breath and release under your pressure on the out-breath.

I used to push hard on "resistance tissue". The tissue pushed just as hard back on my shoulder joint! Now, I no longer find resistance tissue. I find tisuse that melts at my touch when my mind is on my work. Five grams of pressure is enough.

The proof of this neuro-myofascial model is that it works for me in practice.

As a post script, this model can perhaps explain what John (Cottingham) found in his research. Perhaps, someone with low vegal tone has a diminished parasympathetic activity on the outbreath. Their myofascial tissue cannot release because of the inappropriate state of the autonomic nervous system.

An early development in Rolfing theory as to go from the muscular model to the myofascial model. Another step is to move up to the neuro-myofascial model.

We have looked at the relationship of the autonomic nervous system to the tissue release. We can also consider the central nervous system. When we move up to consciously sensing the touch of the Rolfer, we are into the cortex. Again, in Yoga, when I want to release tissue, I focus my mind on the place which is feeling tight (as I breath out).

As a Rolfer, it is obvious to me that there is a change in the release when my client consciously sense my fingers in their myofascia.

I have done some rather interesting demonstrations of the effect of consciousness in releasing connective tissue. Many months back, in Rolf Lines, I described how to straighten a sacrum by touching two points on the sacroiliac joint. At the Rolfing meeting this past summer in May, I asked the person that I demonstrated on to focus their attention on these two points. I used two blades of grass to help them focus their mind in the tissue. In ten seconds, the sacrum rotated about 20 degrees to a balanced position.

According to the old model, physical pressure created friction which then heated up and melted the solidified ground substance. That is one model, and it will lead to a technique for connective tissue release. But that model does not explain how I was able to move the sacrum with essentially no physical force.

Somehow, a model of neuro-myofascia which includes the ascending nervous pathways from the connective tissue to the cortex of the brain (so that we can "feel it") can give us a structure to explain events which do not fit the old model.

I have read quotes from Korzybski, (who I have been told was someone that Ida spoke about), to the effect that consciousness could change colloidal structure. (That was in the Lawson-Wood book based on what they had learned from Ida in England.) I find it so!

There was another point in Robert's letter that got me thinking - how our work on the psoas allows the lumbar to "fall back". Tom Myers and Jan Sultan have given me an understanding of structure in man as it relates to the structure of a four legged animal (including human beings when they crawled). If my anatomy of a four legged animal is correct, they bring the femur forward with the psoas and back with the gluteus maximus as they run. That would mean that the psoas and the gluteus maximus might be fundamentally agonist/antagonist. If we can restore or keep this pattern in our two-legged position, as the psoas tightened on the one side, the reciprocal action on the other side would be the tightening of the gluteus maximus pulling the posterior iliac crest backwards and down, and with that, pulling the lumbar back.

So, as Robert pointed out, to find out how the work on the psoas pushed the lumbar back, we cannot explain it in terms of myofascia alone, but we might have an answer in a model based on neuro-myofascia ... which is what he was suggesting.