

ROLFING® FLAGSTAFF

Rolfing: Structural Integration
Rolf Movement Education™

Gibney Siemion, M.S. - Justin Salamon, M.A.

THANK YOU

for your support in 2017!

Please enjoy this gift from us for yourself or use it to purchase a gift certificate.

\$20 off

One \$110 session

**offer expires May 1, 2018
discount valid for existing clients only



2018 NEWS

Greetings! We hope this finds you healthy and enjoying the final cold snaps of winter. We have a few updates for you as Rolfing Flagstaff continues to grow. This summer we will be relocating to a new office space. Our current building was purchased and the new owner will occupy it in its entirety. If you happen to know of a worthy space for our business please contact us! We'll inform you as to where we're going as soon as we find the right space.

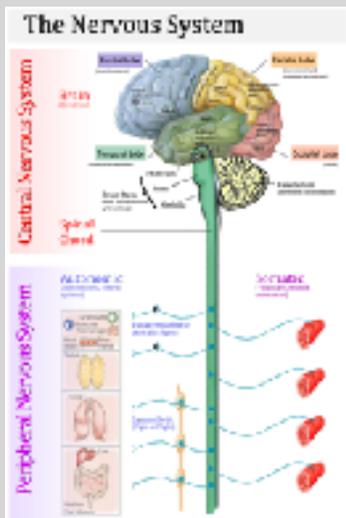
We're in the process of redesigning our website: www.rolfingflagstaff.com. As with any meaningful process, this will take a little time. Also, we'd love your feedback! Please take a few moments to help us meet your needs in the most effective way. Follow this link: <https://www.surveymonkey.com/r/FDN5X8J>.

In our personal lives we welcomed our second child, Elzada "Zadie" Solenne, last April and we are now a happy foursome. Our children have already taught us so much about what it means to be human, how we develop our early motor patterns, and the importance of movement awareness from an early age.



The Nervous System

You may remember from basic biology classes that we have many systems in our body: skeletal, muscular, nervous, integumentary (skin), lymphatic. When functioning in concert, these (and other) systems comprise the whole. But what makes us living and sentient is what *communicates* information between all of these systems and that is the nervous system. The nervous system is comprised of the brain, spinal cord and peripheral nerves. We have nerves sending signals to the periphery - afferent or motor nerves; and nerves bringing



information to the brain - efferent or sensory nerves.

Did you know that we have 3 times as many sensory nerves as motor nerves? We

We have dedicated this issue of our newsletter to exploring the patterns that begin early in our lives.

To health and wellbeing in 2018...

Gibby & Justin

Living Patterns: Breathing and Being

We are fascinated by human development and the living patterns that are common amongst mammals. In this article we hope to introduce you to some concepts including: *breathing* as a way of sensing, *interoception* (our sense of our internal organs and processes), and *proprioception* (our sense of where we are in space). In a future article, we'll touch upon *nociception* (our sense of harmful stimuli). Let's start at the beginning...

Have you ever considered that some movement patterns and preferences begin within the womb? Life in the womb is marked by rapid development of all of the systems of the body. We practice breathing by moving our amniotic fluid in and out of our lungs before we ever take our first breath. We start moving with simple reflex arcs, such as the Moro reflex (a primitive startle reflex¹) and later we develop complex voluntary movements including thumb sucking. Recent research suggests that by the 10th week in utero we have already developed our dominant hand, and that as early as the 8th week the gene expression across our spinal cord (which influences handedness) is asymmetrical, with the left side developing faster (producing a higher number of right handed people). Language development (in the left hemisphere of our brain²) is another early developmental asymmetry. All of this points to the fact that many of our vital skills develop before we ever emerge from the womb.

No clear memory exists of this developmentally important period. In fact, we don't start remembering experiences in an *explicit* way until our right frontal lobe develops its ability to sense and track time. This type of memory with content doesn't arise until we are 2 years old! Still, early experiences are not lost to our nervous system and form our *implicit* memories and the physiological baseline for the rest of our life experiences³. One of the most essential physiological processes is breathing.

Rolfing and the Nervous System

Rolfing is like food for the nervous system. We communicate through touch, talk, and movement education in a way that resonates as “safe” to the nervous system. Change happens when we feel safe and at ease. When you become more mindful, more efficient in movement, with increased perception of your own body, we call it *integration*. When you feel the rich interconnected nature of your own body, we call it *embodiment*.

Integration and embodiment are processes that occur in the nervous system and require a dance between Rolfer and client. Rolfers offer a safe space, listening, gentle hands and novel input for the nervous system. Change happens for the client to the degree that this relationship is sensed as “nourishing” by the nervous system. We hope to make all of your sessions with us nourishing.

Rolfing: Structural Integration is hands-on manual therapy coupled with movement education to help you feel more comfortable, coordinated and resilient.

Each of us took her/his first breath upon emerging from the womb and began a process that does not cease until our last breath. At rest adults breathe in and out 12-18 times per minute. Yet in those early weeks and months a range of breaths between 20 and 40 per minute is considered normal⁴. **Our respiratory rate and quality is not just a reflection of our age, it is a window into our state of being.** Take a moment to observe your breath for a few cycles. Note the rhythm, quality and changes in muscular tension that happen throughout your body simply from attuning your awareness to your own physiological processes. Do you pause after your inhale or your exhale? Where do you feel your breath move? Where *don't* you feel a response to your breath?

Our attention and perception can quickly influence our state of being. It is no wonder that in the Rolfing process we begin with breath and return to it again and again throughout every session as both a tool for change and a way to check in with our present state. It is the foundation of our sense of self and an important skill used for sensing our body. The sense of our physiological state is also called *interoception*, a fancy word to describe our sense of our internal organs, particularly our gut⁵. There are many nerve endings (mechanoreceptors) in the gut, particularly in the visceral ligaments, that provide this information. The mechanical action of breathing affects the information sent from these nerve endings to our brain, and it is recognized that our interoceptive sense of breathing (and heart rate) are correlated with well-being⁶.

In contrast to interoception, *proprioception* is our sense of where our body is in space⁷. It is this sense that allows us to touch our nose with our finger. First we need to have a map of where our finger is, and where our nose is. Then we need complex motor patterns to make the two touch. These maps in our brain and spinal cord are constantly changing and developing.



Need a gift idea?

Give the gift of self-care and the opportunity for your loved ones or employees to focus on health and wellness.



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Your likes & reviews help to spread the work about our local business.



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Our brain is continually monitoring information from our body which originates from an unfathomable number of nerve endings. The skin is richly innervated with nerve endings that provide a broad array of information about the outside world: pressure and vibration (pascini corpuscles), lateral stretch (ruffini endings), and heat / cold⁸. We even have fibers that sense slow touch: c-fibers that when stimulated help modulate our danger sensors or nociceptors (look for more on *nociception* in our next article)^{9,10}. Fascia is invested with nerve endings, particularly the periosteum, that surrounds bone. Joints have many mechanoreceptors like golgi tendon organs that sense muscular contraction and rate of stretch¹¹. Muscles also have muscle spindle fibers that sense the length of the muscle.

Somehow all of this information is used by our brain to make changeable, comprehensive maps of our bodies. Why does this matter in the context of Rolfing? When we experience trauma or injury, we often create protective holding patterns that essentially remove the affected area from our senses or send us danger signals to avoid movement. **Rolfing helps us to remap areas of kinesthetic amnesia with the use of intelligent, listening touch, breath and movement.** We strive to be your safe companion as we explore the mysteries of living patterns.

1 <http://www.neurorestart.co.uk/primitive-reflexes/>

2 <https://www.sciencedaily.com/releases/2017/02/1702071705337.htm>

3 <https://oli.cmu.edu/jcourse/workbook/activity/page?context=c09d34ff80020ca601e9e670ad44bbb8>

4 <https://www.webmd.com/children/child-breathing-too-fast#1-2>

5 <http://www.fasciaresearch.com/images/PDF/InnervationExcerpt.pdf>

6 <http://rstb.royalsocietypublishing.org/content/371/1708/20160014>

7 <https://www.theatlantic.com/health/archive/2015/12/propioception-body-parts-sense-research/420765/>

8 <http://www.fasciaresearch.com/images/PDF/InnervationExcerpt.pdf>

9 <https://link.springer.com/article/10.1007/s40750-016-0052-x>

10 <https://www.physio-pedia.com/Nociception>

11 <https://www.unm.edu/~lkravitz/Exercise%20Phys/spindleGTO.html>



The body is solid material wrapped around the breath.

- Ida Ph.D., founder of the Rolf Institute for Structural Integration