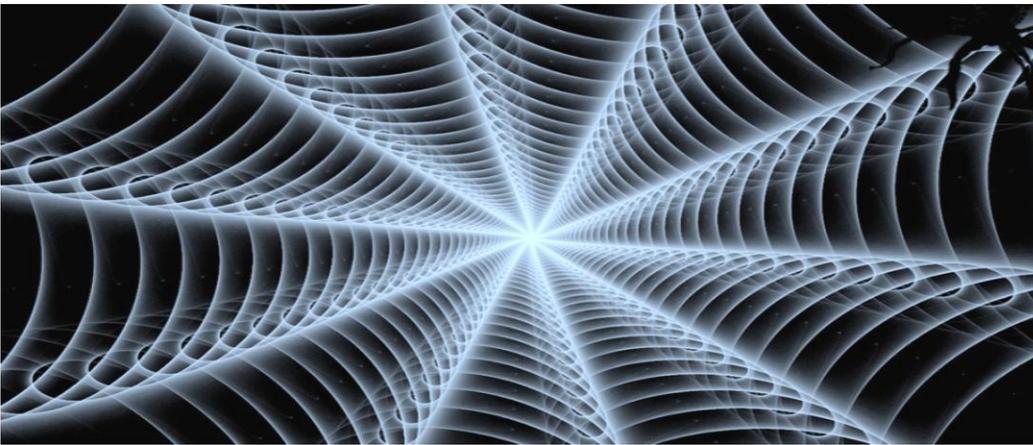


Dr. Allan Oolo Austin, DC, DO, CCRD, CCSP

# TRIGENICS® & FASCIA

FEBRUARY 24, 2014



*The dense innervation of fascia makes it a critical part of the afferent signaling provided by a Trigenics® treatment.*

## The Neurology of Fascia: A New Perspective for the Effectiveness of Trigenics®

Fascia is a connective tissue structure found throughout the entire body, enveloping muscles, blood vessels, and nerves. The fascia exerts a tensional force on the skeleton, creating a “tensegrity” model in the body. While traditional anatomists have viewed fascia as a wrapping that needed to be dissected, the more current understanding of fascia is that it is a complex, dynamic, and densely innervated tissue that can contract and contribute to proprioceptive input. While Trigenics® treatments are targeted towards retraining the nervous system through actions on the muscular system, more recent research demonstrates that

Trigenics® may exert an effect on the fascia as well! As we know, the passive stretch of myofascial structures does not stimulate GTOs. However, as seen with a Trigenics® Length procedure, GTO stimulation does occur when the muscles are actively contracted. Recent research has demonstrated that fascial mechanoreceptor stimulation leads primarily to changes in gamma motor tone, an effect seen in Trigenics® Strength procedures. Schleip stated that “a dynamic muscular loading pattern in which the muscle is briefly activated in its lengthened position promises the most comprehensive stimulation of fascial tissues.” He also

notes that classic ‘joint receptors’ may be less important for normal proprioception than originally thought and it is the superficial fascial layers they are more densely innervated with sensory nerve endings. This most certainly contributes afferent, proprioceptive information to the brain.



## RESEARCH:

Meyers TW. Anatomy Trains. 2<sup>nd</sup> Ed. Toronto: Churchill Livingstone Elsevier; 2009.

Moseley GL, Zalucki NM, Wiech K. Tactile discrimination, but not tactile stimulation alone, reduces chronic limb pain. Pain. 2008;137:600-608.

Schleip R. Fascial plasticity - a new neurobiological explanation part 1. Journal of Bodywork & Movement Therapies. 2003;7(1):11-19.

Schleip R. Fascial plasticity - a new neurobiological explanation part 2. Journal of Bodywork & Movement Therapies. 2003;7(2):104-116.

Schleip R, Muller DG. Training principles for fascial connective tissues: scientific foundation and suggested practical application. Journal of Bodywork & Movement Therapies. 2013;17:103-115.

van der Wal J. The architecture of the connective tissue in the musculoskeletal system – an often overlooked functional parameter as to proprioception in the locomotor apparatus. International Journal of Therapeutic Massage and Bodywork. 2009;2(4):9-23.



## As proprioception increases, pain perception decreases

While this research speaks to the mechanism of Trigenics<sup>®</sup> Length and Strength procedures, it does not explain the often drastic and immediate pain relief experienced after these treatments.

An inverse relationship exists between myofascial pain and proprioception. As proprioception goes up, pain goes down. In a 2008 article by Moseley et al., the authors state that “an increase in local proprioception can significantly lower myofascial pain.” Since we know Trigenics<sup>®</sup> can stimulate fascia and increase proprioception, this explains the incredible pain relief often seen with just one treatment. The authors also indicated that “therapeutically

induced peripheral afferent input needs to be accompanied by a conscious attention of the patient in order to yield a long term anti-nociceptive effect.” That is precisely what is done in all Trigenics<sup>®</sup> procedures!

This research provides incredible evidence for the power of Trigenics<sup>®</sup> and how it provides such amazing results!

All the best,

Dr. A