

How the musculoskeletal system acts as a protective mechanism should not be underestimated.

One of the important functions of the musculoskeletal system is to offer protection. It can happen in obvious ways. It provides padding, insulation, and movement. When the nervous system senses a fragile structure, it provides supportive tension.

Proprioceptors in the soft tissues of the knee sense when joint space is compromised or distorted. Reflex arcs automatically change function in the surrounding muscle by creating trigger points.

These trigger points create several important changes that increase total load:

- ❖ Each myofascial band is tightened
- ❖ Referral patterns are elicited when the muscle lengthens
- ❖ The muscle is less able to contract
- ❖ Movements are restricted creating more complex motor planning
- ❖ Facilitated pathways can be activated
- ❖ Over extended periods, the myofascial band becomes chronically shortened

This applies to the other systems in the Holistic Model. Referred trigger point phenomenon by itself can encumber other systems by creating:

- ❖ Intestinal disturbance
- ❖ Blurred vision
- ❖ Impaired hearing
- ❖ Fight or flight response
- ❖ Pain
- ❖ Stress
- ❖ Depression

All of these factors can add to total load, narrowing the Window of Performance as well as retarding recovery. The body has limited options for movement. It becomes encumbered by pain and restriction.

Learning to operate with these kinds of restrictions is a natural part of development. Trigger points are a part of learning to move, walk, play, eat and otherwise develop as a child. As we develop, our bodies develop reflexes that change movement patterns as trigger points become active and inactive. This makes trigger point mechanisms that adjust our motor planning to help the body avoid further injury. We can look at the function of trigger points as a part of the body's planning and function. Why are these trigger points resistant to release and what is their purpose?

Let us look at an example of how to apply this therapeutically:

- ❖ Once the governing restriction in the atlantooccipital joint is released,
- ❖ Restricted movement in T12/L1 releases as it is no longer needed to protect the dysfunction at the AO
- ❖ Proprioceptive change releases the trigger point in longissimus thoracis as it is no longer needed to protect the thoracolumbar joint
- ❖ This reduces referred pain into the PSIS.
- ❖ Reduced pain in the PSIS allows choices that are more diverse in pelvic function and motor planning in the lower extremity.
- ❖ Somatic release of these structures happens more quickly and completely, if still needed.

**Myofascial protection creates encumbrance on the system.
When the governing infraction releases and
the accessory supports are no longer needed,
the accessory component usually releases spontaneously.**

This concept is important in identifying governors and their accessories that create pain and dysfunction. Once the accessory patterns are no longer needed to protect the body from harm, they can be easily released or unwound.

This helps us to understanding the problem of returning symptoms. When the unreleased governing component is in acute need of support, the accessories in the pattern will return quickly. When the unreleased governing pattern is less acute, the symptoms and accessory patterns will subside for a longer period.

Understanding the hierarchy of governors helps the practitioner sequence the session so that protection is removed in an efficient manner. This allows the practitioner to get more things accomplished in a session with less effort and discomfort.

Restoring function to a muscle before it is treated structurally is important in this perspective.

Structurally lengthening muscle that is not functioning creates confusing assessment for the practitioner and odd symptoms for the client. Muscles that are neurologically shortened will not be able to offer protection as well when the supporting fascia has been lengthened.

See STRUCTURAL AND FUNCTIONAL TECHNIQUES

Structure underlies function - that is true in this perspective as well. The relationship between structure and function needs to be understood in detail when addressing pain and injury. The structure of governor needs to be addressed before the structure of the accessorized muscle is addressed.

Occasionally, mostly in chronic cases, the accessory component develops enough local support to remain active after the governor is released. This can happen for example, when joints remodel or fascial planes adhere.