

THE REFLEX ARC

This short overview illustrates how trauma, through the reflex arc and base laws of physiology, create the referring trigger point which then progresses as a myofascial pain syndrome.

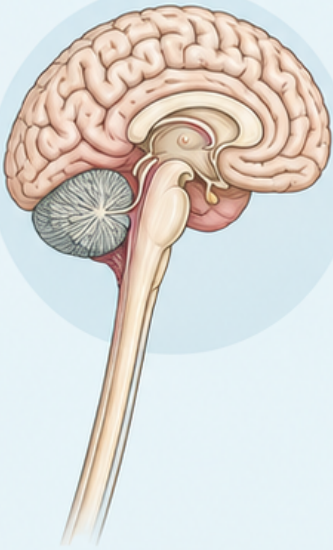
Background

Several physiological principles are important foundations for these concepts:
The reflex arc (any reflex arc) consists of **5 parts**:

- 1 the nerve receptor
- 2 the afferent (sensory) nerve
- 3 the internuncial pool
- 4 the efferent (motor) nerve
- 5 the nerve effector

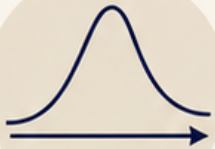
This simple structure in combination with inhibitory and excitatory synapses govern the chain of actions and reactions through the central nervous system.

A slightly more complex version of the reflex arc will be used here.



Arndt's Law

Weak stimuli excite physiological activity, moderately strong ones favor activity, strong stimuli retard activity and very strong stimuli stops it.



Law of Facilitation

When an impulse has passed once through a certain set of neurons to the exclusion of others, it will tend to take the same course on a future occasion, and each time it traverses this path the resistance will be less.



The Normal Reflex Arc

A simplified version of the reflex arc as shown for our purposes has:

- 1 receptors in the muscle fibers, blood vessels and viscera
- 2 afferent (sensory) nerves which lead into the posterior root of the spinal cord
- 3 the internuncial pool, a manifold group of short neurons interposed between the sensory nerves of the posterior root and the motor nerves of the anterior root
- 4 efferent (motor) nerves which lead out of the anterior root of the spinal cord
- 5 nerve effectors in the muscle, blood vessels, skin and viscera.

The function of the internuncial pool is to sort and relay the incoming sensory stimuli into physiologically appropriate motor channels for action.

