



## **Trigger Point Dry-Needling**

*Pain is defined by the International Association for the Study of Pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage.”*

Myofascial pain syndromes are those that are defined by some of the muscle or muscular origin. They are either inflammatory or non-inflammatory and can arise from many causes, including: nutritional deficiencies, mechanical and structural dysfunctions, and hormonal deficiencies. The most common types are Fibromyalgia and Myofascial Pain Syndrome (FMS or MPS). Although these are the most common; they are not the only reason for Myofascial pain.

Myofascial pain will typically produce a taught band of fibers that run the full length of the muscle and are relatively painful to touch. These bands can also create dysfunction in an area of the body because they limit the motion from wither tightness of the muscle or pain limiting the motion. Pain at the specific site of the muscle is called a Myofascial Trigger Point (MTrP); which is capable of producing similar pain symptoms in various other places in the body when touched. The pain elicited from pressure on the MTrP is called referral pain and usually falls into specific patterns associated with each muscle.

MTrP's are often treated through Manual Physical Therapy, where a deep pressure is applied to the most tender point in the muscle belly that is affected. The point is held for 20-90 seconds and the muscle is moved through a range to help relieve the tension. Trigger Point Dry Needling (TDN) offers a similar effect; however, the length of time to stimulate the painful, tight band is typically less and the effect lasts longer.

The procedure for TDN is that the muscle is palpated by the treating therapist until the tightest portion and typically most painful is found. A small needle is then inserted into the dysfunctional muscle tissue. The desired response is called a “twitch” response, where the patient may describe a sensation of the muscle going into spasm on its own. Patients also report a sense of a deep ache in the area being stimulated as well as pain into the referral area for that particular muscle group. Almost all patients are good candidates, unless there is some other disease process occurring, or there is an extreme fear of needles. The patient who does best with this procedure is a non-smoker who enjoys light exercise two or more days a week.

### **There are five treatment effects that occur with TDN:**

- Immune system calls in white blood cells to the area; thus producing
- Inflammation: natural part of the healing process
- Biomechanical: tissue relaxation and change in available ROM
- Vascular: there is typically an increase in blood flow due to less pressure in the arteriole system from tight muscles
- Neurological: nerves innervating the muscles are stimulated and can also have better function due to increased vascularity of the tissue.

During treatment with TDN, patients are asked *not* to take typical NSAIDs, such as Ibuprofen or Aleve, due to the inflammatory process being created.