[PATIENT HANDOUT]

# The Truth About Trigger Points

Ten percent of the U.S. population has at least one chronic disorder of the musculoskeletal system. That means 23 million people are affected, making musculoskeletal disorders the main cause of disability in the working-age population.

Trigger points typically accompany disorders of the musculoskeletal system. These hyperirritable areas in skeletal muscle are associated with tangible nodules in stiff bands of muscle fibers. They are known to emit pain directly at the affected area and produce a local twitch response.

Trigger points can also be formed via acute trauma or repetitive microtrauma. Constant local pain can result in reduced range of motion in the distressed muscles. Trigger points have a tendency to display in muscles used to retain body posture, such as neck, shoulder and pelvic girdle muscles. They can also present as a tension headache, tinnitus, temporomandibular joint pain, diminished range of motion in the legs and low-back pain.

Associated with and caused by trigger points, myofascial pain syndrome (MPS) is a condition illustrated by chronic and, in some cases, severe pain. MPS differs from fibromyalgia, a condition that causes widespread pain and tenderness.

## TYPES OF TRIGGER POINT PAIN

With more than 620 possible trigger points in the human body, these pain points—when they become active or latent—present in the same muscle spots in every person. Therefore, maps of trigger-point areas can be used for everyone who is diagnosed with this type of pain. There are a few different types of trigger point pain:

Active trigger point. It is common for the majority of trigger points to refer pain somewhere else in the body through nerve pathways. Consequently, an active trigger point actively refers pain either locally or to another location. Active trigger points cause pain at rest.

Latent trigger point. This type of trigger point doesn't cause spontaneous pain. It may, however, refer pain actively when the myoskeletal structure containing the trigger point is put under pressure or strained. Inferior muscle coordination and balance can result from latent trigger points as they influence muscle activation patterns. Both active and latent trigger points are commonly referred to as "Yipe" points.

Key trigger point. A latent trigger point is created or activated since key trigger points have a pain-referral pattern along a nerve pathway.

Satellite trigger point. These are set off by a key trigger point. Therefore, if the key trigger point is effectively treated, it will resolve the satellite by either completely treating it or restoring it from active to latent. This is unlike primary trigger points, which when treated, do not treat secondary trigger points.

## DIAGNOSIS AND TREATMENT

Trigger points can be diagnosed by having a physician observe signs, symptoms and pain patterns, and via manual palpation. Often, the physician will feel a hard nodule, which typically indicates there is a taut band of muscles containing trigger points. By running a finger perpendicular to the muscle, a twitch response activates a response, which causes the muscle to contract. Many health care providers can also sense a heat differential in the local area of a trigger point. While no laboratory tests or imaging techniques have been established for diagnosing trigger points, modalities such as ultrasonography, electromyography, thermography and muscle biopsy have been studied.

Patients with chronic musculoskeletal pain can be treated pharmacologically with analgesics and medications to induce sleep and relax muscles. Antidepressants, neuroleptics or nonsteroidal anti-inflammatory drugs are commonly prescribed.

Non-pharmacologic treatment modalities employed by health care professionals, including physical therapists, include myotherapy mechanical vibration, pulsed ultrasound, electrostimulation, ischemic compression, injection, dry-needling, the "Spray and Stretch" technique, low-level laser therapy and stretching techniques to treat trigger-point pain.

By successfully inactivating trigger points, trigger-point injection offers prompt, symptomatic relief, and is recommended to patients with symptomatic active trigger points that display a twitch response to applied pressure and produce a pattern of referred pain. ■

**Resource**

1. American Family Physician (www.aafp.org)

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