

What Is Myofascial Pain Syndrome?

A Brief Explanation for Patients from

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MYOFASCIAL TRIGGER POINTS: WHAT ARE THEY?

A trigger point is identified as a self-sustaining hypersensitive focus of muscle from which impulses emanate to bombard the central nervous system giving rise to referred pain and tenderness. Manual Medicine (1985, 1:68) lists eight characteristics that identify a trigger point. Two characteristics are objective, four are semi-objective, and two subjective:

(1) The complete medical and pain history analyzes all traumatic episodes for muscular stresses and subsequent pain. The precise activity or movement that caused acute onset helps to identify which muscles were overloaded.

(2) Equally subjective, but the prime importance, is a precise drawing of all the patients pain patterns. The patient identifies exactly with one finger everywhere it hurts. The known pain patterns of the muscles are then applied in reverse to identify which muscles are most likely to be the cause of pain.

(3) Restricted stretch range of motion is identified by screening tests. Involved muscles cause pain when passively stretched or when contracted in a shortened position. However, motion is most restricted in the direction of stretch.

(4) Palpation of the exquisitely tender trigger points causes a "jump sign" that is also semi-objective. The patient winces and/or vocalizes.

(5) The palpable taut band that harbors the trigger point is purely objective.

(6) The second objective finding, a local twitch response of only the taut band, clearly identifies a trigger point without distinguishing whether it is active or latent. This response is the transient contraction of muscle fibers that comprise one or more taut bands. The twitch is elicited by sudden increase, or release, or pressure during snapping palpation.

(7) Reproduction of pain by pressure on a trigger point is subjective. Nonetheless, it convinces both the patient and practitioner that the tender spot is a source of spontaneous pain.

(8) Semi-objective strength-testing reveals weakness: either a painless "breakway" weakness, or effort limited by pain. In the former, the involved muscle increases resistive force to a point and then "gives way" short of normal strength. The involved muscle has "learned" to avoid a painful contraction by limiting the force exerted.

WHAT CAUSES TRIGGER POINTS?

Although active trigger point pain often originates in disc disease, nerve entrapment syndrome, viscerosomatic pain and certain muscle pain of unknown origin, direct trauma or acute injury to a muscle, immobilization, abuse, chilling of fatigued muscles and a variety of mechanical, environmental and occupational factors precipitate and perpetuate many of the more common myofascial trigger point symptoms. Predisposing factors may include general fatigue, chronic infection, medications, general stress, repetitive occupational movements or positions, or inadequate nutritional levels. In totality, these conditions may, and often do, lead to a variety of combinations that ultimately yield chronic pain and dysfunction.

When acute strain, due to sudden overload or overstretching a muscle activates a trigger point, the muscle can often repair itself spontaneously within a few days if the demands to it are sufficiently reduced and it is not immobilized. However, in the presence of perpetuating factors, the active trigger point becomes a self-sustaining focus of neuromuscular

hyper-irritability. Chronic strain due to excessively repetitive or sustained muscle contraction can activate the perpetuating trigger points and the abused muscles. Usually it is one event that initiates trigger point activity in a muscle while other conditions perpetuate it. Muscles have remarkably long "memories" and although the injured tissues may heal, skeletal muscles "learn". They readily develop habits of guarding which limit movement and impair circulation. This guarding habit may continue long after the initiating trauma. This same protective guarding occurs when muscles are repeatedly overused or abused. The symptoms, therefore, usually outlast the precipitating events, owing to persevering reflex patterns and continuing mechanical stresses on the affected body structure. Chronic pain, stiffness, and dysfunction of the muscles results.

TREATMENT BY TRIGGER POINT MYOTHERAPY

Medical studies have shown that the pain cycle is often eliminated by applying direct, sustained, firm, external pressure on the trigger point (i.e., myotherapy). Trigger point elimination can also be affected by stretching the affected muscles while applying fluori-methane, a coolant spray, to the overlaying skin followed by full range of motion and/or PNF (proprioceptive neuromuscular facilitation) stretching. The goal is to inactivate the trigger point, produce relaxation in tense, contracted muscles and restore shortened and otherwise stretch-resistant muscles to their full range of motion without that experience of pain. It is to be noted, however, that lasting relief must include an ongoing stretch/exercise program of muscle retraining and re-conditioning along with the recognition and treatment of multiple systematic and mechanical factors that can reactivate and perpetuate the trigger points. Trigger point myotherapy usually provides only temporary or partial relief unless steps are taken to eliminate these factors and bring the muscular system to balanced functioning potential.

If sustained gains are not noticed after several sessions then other more aggressive measure may be considered. These include, but are not limited to, the following:

Acupuncture de-activation of trigger points (see Dr. Sniezek's Acupuncture Brochure on web site),

Soft tissue trigger point injections (using sterile saline, Serapin, Marcaine, xylocaine, steroid, or combination),

Combination of physical therapy modalities (heat, electrical muscle stimulation, ultrasound, PNF stretching and strengthening exercises).

ARE THERE ANY "DO'S OR DON'Ts" FOR ME ON THE DAY OF TREATMENT?

Yes. To enhance the value of a treatment, the following guidelines are important:

Do not eat an unusually large meal immediately before or after your treatment,

Do not over-exercise, engage in sexual activity, or consume alcoholic beverages within six hours before or after treatment,

Plan your activities so that after the treatments you can get some rest, or at least not have to be working at top performance. This is especially important for the first few visits.

Continue to take any prescription medicines as directed by your regular doctor. Substance abuse (drugs and alcohol), especially in the week prior to treatment, will seriously interfere with the effectiveness of the treatments.