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Trigger Point Pain

Perturbation Gains  
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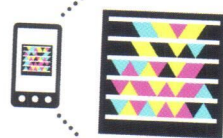
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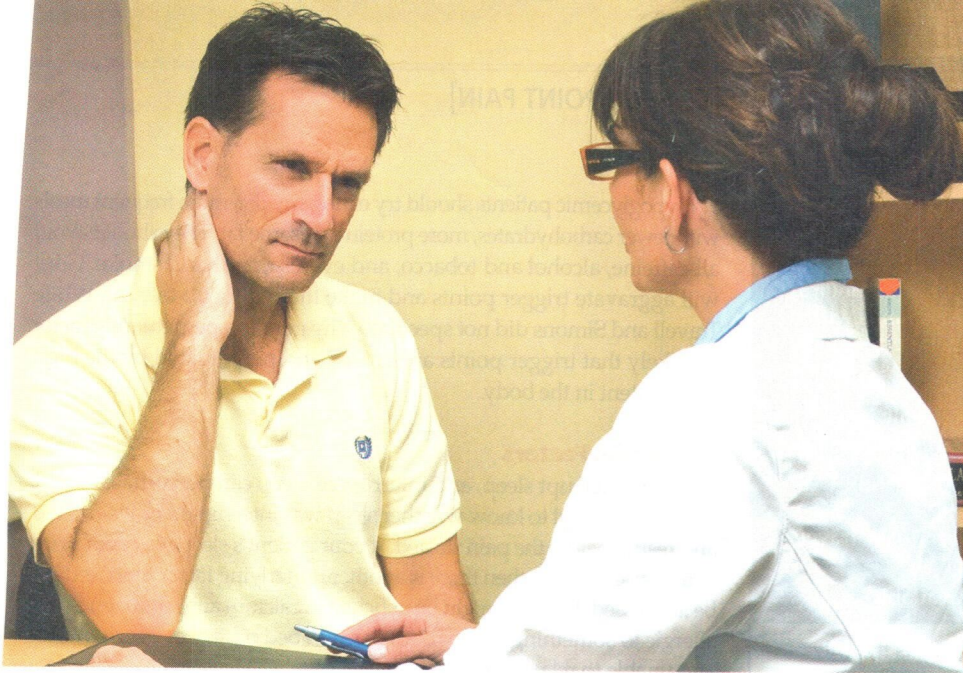
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# Below the Surface

Trigger point pain can be caused and exacerbated by factors often overlooked by therapists

By Valerie DeLaune, LAc

If you're not addressing perpetuating factors, you're not treating trigger points. Renowned researchers Janet Travell, MD, and David Simons, MD, believed that treating the conditions that cause and keep trigger points activated was the most important part of treatment.

Physical therapists are well-versed in ergonomically correct furniture and body mechanics, which are usually the easiest and least expensive perpetuating factors to address. Changing patients' workstations, making sure their bed is firm enough and fitting them for custom footbeds are probably all factors that you address on a regular basis. You may be referring them to chiropractors and osteopaths for joint adjustments. But what might be going on systemically when you see widespread pain that is difficult to resolve?

## Nutritional Factors

Inadequate nutrition is one possibility. Travell and Simons found that almost half their patients required treatment for vitamin deficiencies or insufficiencies to obtain lasting relief from the pain and dysfunction of trigger points, and thought it was one of the most important perpetuating factors to address.

A nutrient insufficiency means that levels are within the lower 25 percent of normal range, which may cause subtle clinical signs and symptoms. Most health care providers will

dismiss lower levels of a vitamin or mineral as being irrelevant, since results are within a "normal" range. However, insufficiencies can cause and perpetuate chronic pain.

Several factors may lead to nutrient deficiency or insufficiency, including an inadequate intake of a nutrient, impaired nutrient absorption, inadequate nutrient utilization, an increased need by the body, a nutrient leaving the body too quickly, and a nutrient being destroyed within the body too quickly. Travell and Simons found the most important supplements for treating trigger points were the water-soluble vitamins B1, B6, B12, folic acid and vitamin C, and the minerals calcium, magnesium, iron and potassium. Other researchers have added vitamin D to that list.

Another possibility is that your patient isn't drinking enough water. A general rule of thumb for people weighing more than 100 pounds is one half of their body weight multiplied by the number of ounces; for example, 140 pounds body weight means 70 ounces of water. Be aware, however, that drinking too much water can deplete vitamin B1 (thiamine). Caffeine can cause a persistent contracture, or caffeine rigor, of muscle fibers, and increases muscle tension and trigger point irritability, leading to an increase in pain. It causes an excess release of calcium from the sarcoplasmic reticulum and interferes with the rebinding of calcium ions by the sarcoplasmic reticulum. Travell and Simons

found that caffeine in excess of 150 mg daily, which is more than two eight-ounce cups of regular coffee, would lead to caffeine rigor.

In addition, alcohol aggravates trigger points by decreasing serum and tissue folate levels. It increases the body's need for vitamin C, while decreasing the body's ability to absorb it. Tobacco also increases the need for vitamin C.

## Acute and Chronic Infections

Infections are a prevalent perpetrator of trigger points and are often overlooked. It is important to eliminate or manage infections in order to get relief from pain. Chronic infections such as sinus infections, an abscessed or impacted tooth, urinary tract infections and herpes simplex (cold sores, genital herpes, herpes zoster) will perpetuate trigger points and need to be managed if recurrence is frequent.

Both inhaled and ingested allergens can perpetuate trigger points and make them harder to treat, due to the subsequent histamine release. Some people with pain may experience significant relief if they are able to minimize allergic responses. You may need to refer your patient to a specialist for tests.

## Organ Dysfunction and Disease

Organ dysfunction and diseases such as hypothyroidism, hypometabolism, hypoglycemia and gout can cause and perpetuate trigger points, and are the more challenging perpetuating factors to control or eliminate.

Both thyroid inadequacy (also known as hypometabolism or subclinical hypothyroidism) and hypothyroidism will cause and perpetuate trigger points. Even if a patient is on a thyroid supplement, I've noticed that they are still somewhat prone to trigger points. Some studies report the prevalence of subclinical hypothyroidism to be as high as 17 percent in women and 7 percent in men. People who have a low-functioning hypothyroid gland may experience early morning stiffness, and pain and weakness of the shoulder girdle.

Both thyroid inadequacy and hypothyroidism can cause cold (and sometimes heat) intolerance, cold hands and feet, muscle aches and pains (especially during cold, rainy weather), constipation, menstrual problems, weight gain, dry skin, fatigue and lethargy. Muscles feel hard to the touch. Occasionally, people with hypometabolism may be thin, nervous and hyperactive, and a health care provider may fail to consider subclinical hypothyroidism.

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Hypoglycemic patients should try eating smaller, more frequent meals with fewer carbohydrates, more protein and some fat. They should avoid all caffeine, alcohol and tobacco, and even secondhand smoke. Gout will aggravate trigger points and make them difficult to treat. While Travell and Simons did not speculate why gout is a perpetuating factor, it's likely that trigger points are caused and perpetuated by the high acid content in the body.

### Additional Factors

Pain can interrupt sleep, and interrupted sleep can perpetuate trigger points. It's useful to know whether sleep was interrupted or was sound and restful before the pain started. If your patient's sleep was poor prior to the onset of pain, then there is another underlying factor that needs to be addressed. Patients might be deficient in calcium and/or magnesium, allergic to something in the room (such as bed mites), or over-stressed and unable to relax enough to sleep.

Emotional factors can also cause and perpetuate trigger points, and are important to consider. Unfortunately, patients are often dismissed by their doctors as "just being under stress." They leave the doctor's office without their symptoms being assessed or addressed. If patients are in pain long enough, of course they will begin to feel fatigued and depressed. If they are depressed long enough, they will probably develop pain. Often, people suffering from severe depression, anxiety, chronic fatigue and/or extreme pain lack the energy to participate in their own healing. They may have difficulty feeding themselves properly or even getting out of bed, and cannot manage even mild forms of exercise such as walking—the very things that would make them start to feel better.

Walking and deep breathing are great relievers of tension and depression. Even walking for 10 minutes per day, especially outside, can be beneficial. You may need to refer your patient for counseling, or to a health care provider who can rule out physical causes of emotional symptoms.

### What PTs Can Do

Even though physical therapists and rehabilitation clinicians can't diagnose and treat most of these conditions, it's important to recognize these important perpetrators of trigger points, including their symptoms, so you can refer your patient to the appropriate health care provider. It's helpful to form an alliance with health care providers who are familiar with trigger points; not only can they order the pertinent laboratory tests, but they will understand why you think an evaluation may be helpful in treating your patient's pain. ■

### Resource

1. Travell, J., & Simons, D. (1999). *The Trigger Point Manual, Vol. 1*. Philadelphia: Lippincott Williams & Wilkins.

Valerie DeLaune is a licensed acupuncturist and certified neuromuscular therapist in Anchorage, AK. She is author of four books and several articles on trigger point and acupuncture topics, and teaches trigger point workshops nationally. Visit [www.triggerpointrelief.com](http://www.triggerpointrelief.com)



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