

What Your Bodyworker Should Know About FMS and CMP by Devin J. Starlanyl © 2002

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Please read "What Everyone on Your Health Care Team Should Know" and
"Perpetuating Factors."

A client may come in for therapy with both fibromyalgia syndrome (FMS) and chronic myofascial pain (CMP), yet only one or neither may be diagnosed. She or he may have received inappropriate bodywork, causing further damage. This can put you in a difficult position, unless you are well trained in these conditions and prepared for this eventuality. Inappropriate care is a common but totally preventable perpetuating factor. FMS is not the same as myofascial pain (Gerwin, 1999). It is fundamentally different in an important way (Simons, Travell and Simons, 1999 p 18). This difference will profoundly impact your therapy. FMS, just like CMP, has, as one of its symptoms, chronic pain. FMS, like many other conditions, is not *curable* right now, but it is very *treatable*. FMS is treated very differently than myofascial trigger points (TrPs).

All widespread pain is not FMS. Body-wide TrPs can cause widespread, overlapping composite pain patterns. Other illnesses and even some medications can cause widespread pain without FMS being involved. ***There is no such thing as a fibromyalgia trigger point.*** Some doctors are unaware of these facts. Legally, you can't dispute the doctor's diagnosis. You *can* note observations on your charts and reports indicating the presence and location of contraction nodules and taut bands (associated with myofascial TrPs and *not* fibromyalgia). You *can* diagram referred pain patterns and note associated symptoms. Your notes and charts can teach other care providers. Those notes may be of vital importance in future law cases. They must be accurate, exact, clear and complete.

Fibromyalgia is not musculoskeletal (Simms, 1998). The dysfunction is in the central nervous system. It is biochemical, and these biochemicals affect the whole body. You can't have FMS in just the back or back or the hands. You have it all over or you don't have it. FMS may be *amplifying* local symptoms. Localized symptoms are often caused by myofascial TrPs, but there are many other conditions that can cause localized pain.

FMS is associated with widespread hyperalgesia and allodynia (Russell, 1998). Hyperalgesia is amplification of pain sensations. Allodynia means that nonpainful sensations such as touch, noise, vibration, lights or smells are painful. Anything that results in tissue injury, whether from obvious trauma such as an auto accident

or from subtler biochemical damage, can cause hypersensitivity at the injury site. If there is repeated or continued trauma, other areas can hypersensitize (Yaksh, Hua, Kalcheva et al. 1999). This can lead to “central sensitization” in response to chronic, long-term pain (Staud, Smitherman, 2002). FMS can amplify pain and other symptoms from any source such as an infection or a cut or burn. An examination for FMS tender points or myofascial TrPs can cause an FMS client to go into flare with amplified symptoms for weeks. Clients may need extra pain medication before and after an examination, as well as soothing, gentle bodywork such as craniosacral release to help calm the central nervous system.

The start of each case of FMS probably has multiple causes (Bennett and Jacobsen, 1994). FMS is not progressive (Wolfe, Anderson, Harkness et al, 1997). If your client’s symptoms have been getting significantly worse with time, there is at least one perpetuating factor that is not being addressed. Perpetuating factors are every bit as important in FMS as they are in CMP. You may be able to help your client find some of the mechanical and habit perpetuators. There are clues that will help distinguish FMS from CMP. Restricted motion is not a part of FMS. Generalized fatigue is, but not the specific muscle weakness that is due to TrPs. With TrPs, there is no pain in areas of the muscle not affected by TrPs, unless FMS or something else is causing it. Disturbed non-restful sleep can be found in either condition, but from different causes. You are not going to find hard lumps and bumps and ropy bands in FMS. Those are associated with myofascial TrPs. You are not going to find FMS generalized hypersensitivity and allodynia in CMP. If all of these symptoms exist, your client *may* have both conditions.

The key to treating FMS, just like CMP, is getting the perpetuating factors under control. FMS will perpetuate myofascial pain because it can amplify the pain, muscle weakness, proprioceptive dysfunction and autonomic concomitants of the TrPs. The TrPs will perpetuate FMS because, although FMS *amplifies* pain, the TrPs *generate* pain and will keep the central nervous system hypersensitized. There is no substitute for a thorough study of the Trigger Point Manuals to help you treat TrPs. Every minute you spend with these medical texts will be rewarded. There is a chapter on perpetuating factors, and an extensive section on varieties of bodywork, in Volume I, Edition 2 (Simons, Travell, Simons 1999).

There are precautions you must take when you have a client with both FMS and CMP. Ask for feedback, especially until you are aware of the comfort level of the client, the nature of the client and his or her communications skills, and have established a clinical history. Some clients with FMS may not be able to tolerate background music, and some may be able to tolerate some kinds of background music but may find others disturbing. They will most often not be able to tolerate any kind of aromatherapy or incense. They may require soft lighting. They may not give you an accurate account of the pain that is being experienced. They may have constant pain, and their brain fog may prevent communication as to how much they hurt, or in what way. They may exhibit fight, flight, freeze or startle patterns. They may say the therapy isn’t hurting, and then suddenly they are in

intolerable pain and they may scream, cry, curse or even pass out. Therapy for clients with both TrPs and FMS amplification may lead to sensory overload. Shock may occur, even with the best therapists. Never underestimate the combined effects of these conditions.

During therapy, constantly monitor your client's comfort level. Listen to your client. It is not unusual for a client undergoing myofascial therapy to experience emotional releases. This may come in the form of uncontrolled crying or some other emotional state such as anger or fear. This is a sign to pause and tend to your client's needs, based on the clinical history. If you are trying any new type of therapy on a client with FMS, proceed cautiously. Try a new technique on a small area of the body, or for a brief time only, using the rest of the time with your usual therapy. Some therapies, no matter how gentle, have profound *delayed* results.

Any trauma sustained throughout life can cause cells and tissues to accumulate substances in abnormal quantities. This is called "infiltration" in older literature. This may consist of triglycerides, glycogen, calcium, uric acid, melanin and bilirubin. Calcium may be stored by injured mitochondria (Leahy and Mock, 1992). Successful bodywork can release these substances, resulting in nausea, headaches, and exhaustion. The liver and kidneys can handle only so much of these released biochemicals. Allow your client time to recover from one session before you release more. Explain that there may be post-therapy soreness. Soaking in a tub with Epsom salts and a few teaspoons of ground ginger after therapy may minimize the soreness. Bodywork can also activate latent TrPs, causing temporary symptom increase. This can be discouraging and frustrating for your client. Your client may be able to minimize the side effects by drinking lots of good water to dilute and flush out the waste materials.

A home stretching therapy regimen must be started very slowly and carefully, and must be prescribed like a medication. Each treated muscle needs to be stretched slowly *once* to its full range of motion. These single stretches should be repeated several times during the day. Each stretch should be *within the limits of pain*, and should not produce a lasting ache. When an exercise produces only mild soreness that disappears on the first day, the exercise can be repeated on the second day. If the soreness continues, watch the patient to see if there is something he or she is doing incorrectly. Post therapy soreness should not last more than a day or two. When the TrPs cause only a mild soreness that disappears quickly, gradual *lengthening* exercises can be added to the daily program. Your client should avoid or modify activities with repetitious movement, such as vacuuming.

A muscle with a TrP cannot be strengthened. The muscle is already contracted by the TrP and the TrP inhibits strengthening the muscle (Simons, Travell and Simons, 1999). Trying to strengthen the muscle will simply worsen the TrPs. If TrPs are causing pain even at rest, gentle passive stretch and moist heat may be the only type of bodywork you can do. Teach your clients about perpetuating factors, proper breathing and stretching (Simons, Travell and Simons,

1999). Remind them how long it has taken their body to get in the condition it is in. If a therapy technique causes symptoms to worsen significantly, stop. Try another technique.

Exercise must be prescribed carefully, and monitored closely. When the TrPs cause only a mild soreness that disappears quickly, gradual *lengthening* exercises can be added to the daily program. *Your client must be out of pain with normal range of motion for two weeks before strengthening exercise is initiated, and then it must be gentle and introduced very gradually.* This means the TrPs must be **gone**. Janet Travell spoke these words frequently, but they were not often heard. When your client can perform 10 lengthening contractions easily, these can be replaced with 1 muscle shortening contraction. Holding a healthy muscle in maximal contraction for 5 to 10 seconds daily will maintain the strength of the muscle (Simons, Travell and Simons, 1999). One additional repetition may be added each day if the exercise soreness disappears that day. FMS clients tend to underestimate the amount of exercise they've experienced. That may be caused by the fact that in FMS, exercise causes a reduction in body temperature and blood flow to the brain, the opposite of what healthy people experience. Due to FMS cognitive deficits, your client may not be able to think clearly enough during exercise to set sensible limits.

Proprioceptor disturbances and autonomic symptoms can be associated with any TrP. Proprioceptors are receptors that are concerned with your spatial awareness. This includes where you are in relation to objects around you, as well as the relationships between one part of your body and another. Proprioceptor dysfunctions can include imbalance, dizziness, tinnitus, and a distorted weight perception of objects you pick up. Autonomic nervous system TrP symptoms can include abnormal sweating, dizziness, eye tearing, persistent runny nose, excessive salivation, and "goose bumps" on your skin. TrPs can also entrap blood and lymph vessels, nerves and ducts.

When there is trauma, whether mechanical or biochemical, there is tissue change. There may be fibrosis (Simons, Travel, Simons 1999, p 81), scarring and/or calcification. Scars form in areas of direct tissue insult and are part of normal tissue repair. Scar TrPs can cause prickling or burning, and do not have recognizable referral patterns. They must be worked carefully. Scars may cover vast areas of tissue damage under the skin. Immobility can cause the formation of microadhesions after trauma that become progressively more fibrotic with more immobilization. (Cantu and Grodin, Myofascial Manipulation, chapter 4). The fabric of the muscle feels like concrete. Fibrotic changes occur in surrounding tissue not directly traumatized. Traumatized tissue creates biochemicals that infiltrate the surrounding tissue. This causes a homogenous change in the connective tissue over wide areas around the trauma. Calcification is the hardening of muscle due to the deposition of calcium salts. This is more common in areas of attachment TrPs, and I believe it to be more common with metabolic dysfunctions such as FMS. In the attachment areas, tissues have a lot of surface area. They are folded and

convoluted, leading to greater flexibility, but also leading to greater chance of tearing and scarring, tissue changes. Tissue in the attachment areas can become scarred or sclerotic. The attachment TrPs are caused by the sustained tension due to the central TrPs.

In patients with coexisting FMS and CMP, we have discovered the presence of multiple geloid or hard, clearly definable, measurable masses that seem to overlie resistant TrPs. These make bodywork very difficult, as they can be extremely sore to touch. They are accompanied by interstitial swelling and extremely taut areas of dense tissue. The geloid mass may be one of the first objective indications that FMS and CMP together form a separate illness that is more than the sum of the two (Starlanyl, Jeffrey, Roentsch, Taylor-Olson, 2001-2; Starlanyl, Jeffrey 2001).

These tissue changes will take a lot of time and work to reverse. If you plan to work on such an area, talk about it with your client first. Breaking up abnormal deposition of collagen hurts, and this pain is amplified by FMS. You may need to conference with the client's doctors on this. You may want to suggest extra pain meds for before and after these sessions. This can be done with diplomacy, such as: "I have noticed xyz. This is how I'd like to proceed. This may cause temporary increase in pain level, according to these references. I would like to avoid further sensitizing the already hypersensitized central nervous system. Could we talk about options?"

Mechanical skeletal asymmetry and disproportion are like land mines waiting to go off. Any long-standing loss of range of motion on one side of the body usually means that the other side is overworked. That compensation is often viewed as the problem, rather than the body's attempt at a solution. (For a detailed discussion of asymmetry evaluation and other perpetuating factors, see Starlanyl and Copeland, 2001).

The small amount of time you spend with your client must be balanced by a home exercise regimen. Start slowly. Add new activities or therapies gradually. Be realistic. The wrong exercise can be every bit as damaging as the wrong medication. Consider all the variables and options. Exercise can be a great help in relieving symptoms, but any type of bodywork you choose should avoid repetitious exercises (Simons, Travell and Simons 1999, p 109). Tell your clients to avoid activities that produce repetitive muscular loads, such as shoveling snow, raking leaves, vacuum cleaning, painting walls, or unloading a dishwasher.

It can be frustrating to schedule FMS clients. Their fibrofog can cause havoc with your scheduling. You may want to make arrangements for clients canceling at the last minute, canceling frequently, or arriving at incorrect times. Try to schedule clients with FMS on the hour at the same time every week or whenever you have them scheduled, so it is easier to remember. You may want to draft a few handouts for clients who often have chest pain, shortness of breath, migraines, or leg cramps often. Be very clear about your instructions for post treatment home

exercise, stretching, hot baths, etc. Write out your instructions for stretching and other care between bodywork sessions. With preparation and care, you can greatly enhance your clients' quality of life.

See the Reading Room Bodywork Section for helpful books for you and for your clients.

In my opinion, Clinical Mastery in the Treatment of Myofascial Pain, by Lucy Whyte Ferguson and Robert Gerwin, should be read and reread by anyone who practices any form of myofascial pain medicine. If you want to know in which order to treat TrP-laden muscles and how to release difficult areas and so much more, it's here, waiting for you.

Myofascial trigger points (TrPs) cause muscle dysfunction and loss of range of motion (ROM) even before they cause pain. Overlapping TrP pain patterns can cause confusion for care providers and patients. Specific ROM tests can help you distinguish between different TrPs. A great tool to help care providers find specific TrPs and document the dysfunction and its sources is the range of motion charts. Visit Round Earth Publishing and check out this valuable resource at <http://shop.store.yahoo.com/roundearth/rach.html>.

References

Bennett, R. M. and S. Jacobsen. 1994. Muscle function and origin of pain in fibromyalgia. *Ballieres Clin Rheumatol* 8(4):721-746.

Cantu, Robert L. and Alan J. Grodin. 1992. *Myofascial Manipulation: Theory and Clinical Application*. Aspen Publishers Inc: Gaithersburg MD.

Gerwin, R. D. 1999. Differential diagnosis of myofascial pain syndrome and fibromyalgia. *J Musculoskel Pain* 7(1-2):209-215.

Leahy M, Mock L. E. III. 1992. Myofascial release technique and mechanical compromise of peripheral nerves of the upper extremity. *Chiro Sports Med* 6(4):139-140.

Simms, R. W. 1998. Fibromyalgia is not a muscle disorder. *Am J Med Sci* 315(6):346-350.

Simons D. G., Travell, J. G., Simons L. S. 1999. Travell and Simons' Myofascial Pain and Dysfunction: The Trigger Point Manual. Vol 1, 2nd edition. Baltimore: Williams and Wilkins.

Starlanyl D. J., Copeland M. E. 2001. *Fibromyalgia and Chronic Myofascial Pain: A Survival Manual*. 2nd edition. Oakland: New Harbinger Publications.

Starlanyl D. J., Jeffrey J. L., Roentsch G., Taylor-Olson C. 2001-2. The effect of transdermal T3 (3,3',5-triiodothyronine) on geloid masses found in clients with both fibromyalgia and myofascial pain: double-blinded, N of 1 clinical study. *Myalgies* 2(2):8-18.

Starlanyl D. J., Jeffrey J. L. 2001. Geloid masses in a client with both fibromyalgia and chronic myofascial pain. *Phys Ther Case Rep* 4(1):22-31.

Staud R., Smitherman M.L. 2002. Peripheral and central sensitization in fibromyalgia: pathogenetic role. *Curr Pain Headache Rep* 64:259-66.

Wolfe, F., Anderson J., D. Harkness et al, 1997. Health status and disease severity of fibromyalgia: results of a six-center longitudinal study. *Arthritis Rheum* 40(9): 1571-1579.

Yaksh T. L., Hua X. Y., Kalcheva I .1999. The spinal biology in humans and animals of pain states generated by persistent small afferent input. *Proc Natl Acad Sci* 96(14): 7680-6.