



Myofascial Release Therapy

Myofascial Release Therapy (MRT) is the manual release of myofascial tension, adhesions and old scar tissues using hands and fingers to apply pressure on the injured, tight muscles, tendons, ligaments. Active Release Technique (ART), Myofascial Release Techniques (MRT), Instrument Assisted Release Technique (IART), Groston Technique are all methods used to treat injuries of the muscles, ligaments, tendons, nerves and fascia, otherwise known as “soft tissue injuries.” In our program, we use a variety of methods to address the soft tissue component of an injury

Over the years, I have found that the Vibratory Myofascial Release Therapy (VMRT) is much more effective, especially in athletes, thicker muscles tissues and in older, more chronic injuries. VMRT acts like a well modulated jackhammer as it eases chronic muscle pain that is caused by myofascial restrictions, trigger points and scar tissue within the damaged cells of the muscles and connective tissues. Unlike a jackhammer, the VMRT provides quite, smooth power to superficial or deep tissues.

Vibrational therapy has also been shown to stimulate small, specialized nerves (Mechanoreceptors) within the muscle, tendons and ligament. These nerves are constantly sending electrical stimulation and input from the tissues into the brainstem and other areas of the brain.

Excessive tightening of muscles with scar tissue can cause overall protective stiffening of the muscles, resulting in pain and restriction of motion. The VMRT works by breaking up scar tissue and adhesions in the body’s fascia which cause restricted motion or pain.

Fascia is the thin layer of connective tissue, and is part of the connective tissue system that protects organs, bones, muscles, nerves and blood vessels, while fascia in its non-stretchy form makes up tendons. Essentially fascia extends throughout the entire human body forming a protective barrier.

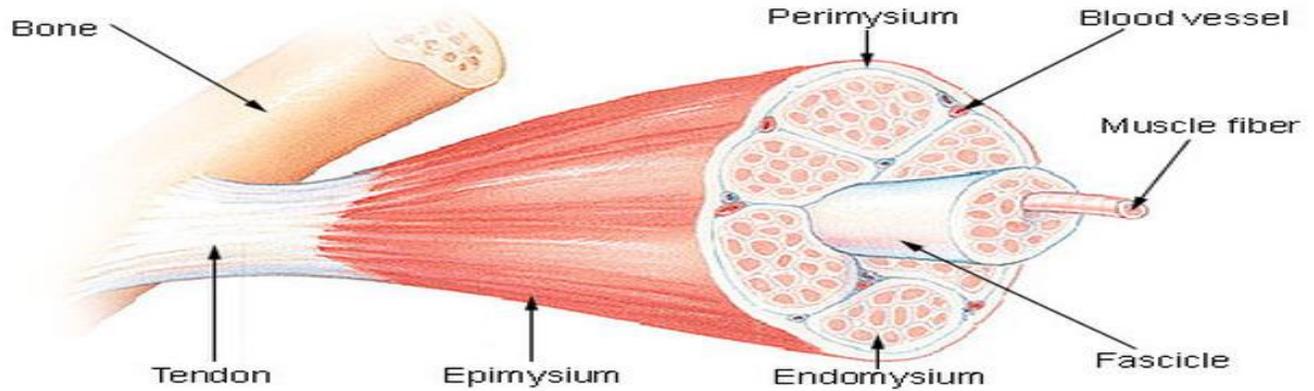
When fascia is damaged, the fascia contracts to protect the muscles from injury and causing surrounding muscles to take on the job of the injured muscle. As the Fascia tightness, it results in pain and limited motion of the muscle tissues and eventually the joints also become restricted. The problem arises when these surrounding muscles are incapable of the performing the desired job and in trying to do so, your body strains what had become the helper muscle.

The VMRT is successful even with older chronic pain ridden areas. The VMRT releases vibrations which penetrate through the various fascia layers, stimulating nerve reflexes, promoting muscles to relax and release latent lactic acid and allowing lymphatic drainage while increasing blood flow to the injured area and allows for greater motion in the region. The VMRT is not a massager; it is far more effective. 1 to 3 minutes of therapy with a VMRT produces results that require more than 1 hour of traditional massage.

The VMRT is used for deep tissue myofascial release; it has many benefits in the treatment of acute and chronic injuries.

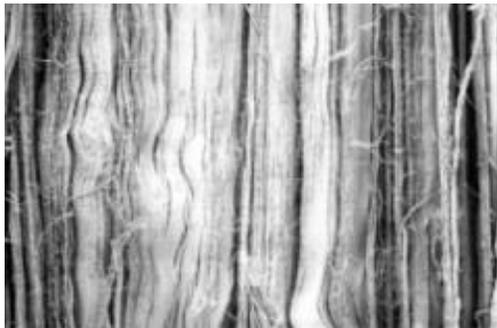
When used in conjunction with our Class IV Laser & LED, the VMRT helps reduce scar tissue formation in acute injuries and breaks up scar tissue that is commonly present in chronic injuries. Another benefit is release of superficial fascia in conditions such as plantar fasciitis. The VMRT improves blood flow and encourages lymphatic drainage which will improve recovery time from injuries. This device has adjustable speeds so that it can be adapted to the comfort level of the patient. The VMRT is a wonderful tool that soothes sore muscles and is a vital part of our specialized treatment program.

Structure of a Skeletal Muscle



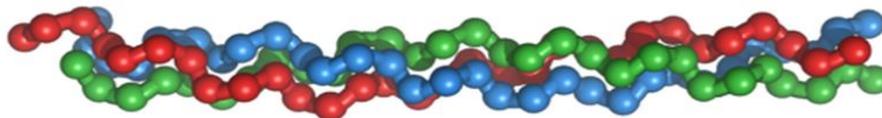
All soft tissue injury must go through a healing process. Ideally, the repaired tissue will resemble something like the original.

The picture **below left** shows the fiber orientation of uninjured soft tissue that is much like the strands of a rope. The picture **below right** shows injured soft tissue with obvious tears and gaps. The torn fibers will necessarily be mended with scar tissue.



In many cases of soft tissue injury the healing process unfortunately results in poorly adapted scar formation resulting in chronic stiffness, weakness, and discomfort. Instead of the uniform lengthening of muscles and connective soft tissues that normally occurs during everyday use, an adhesion results in a "snag" or area of relative density and restriction (illustrated below) that can limit active or passive motion, impair flexibility, and short-circuit full strength of the entire structure until the proper technique is used to release the adhesion.

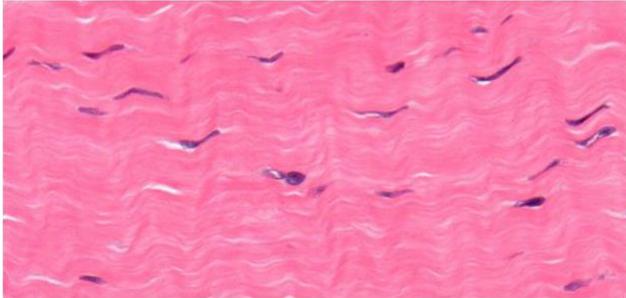
TRIPLE HELIX CHEMICAL STRUCTURE OF COLLAGEN FIBRILS



NORMAL COLLAGEN-BASED TISSUE -vs- SCAR TISSUE & ADHESION

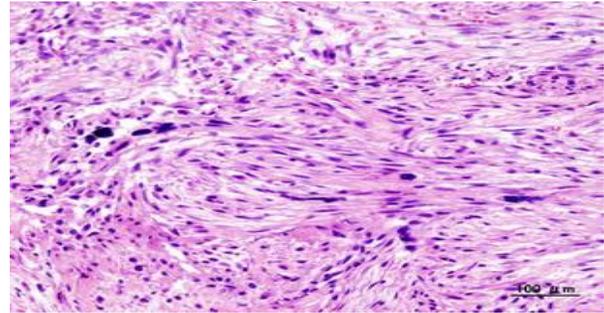
Microscopic view of Normal Healthy Tissue
Properly aligned, healthy functional, pain free tissue

Figure 1

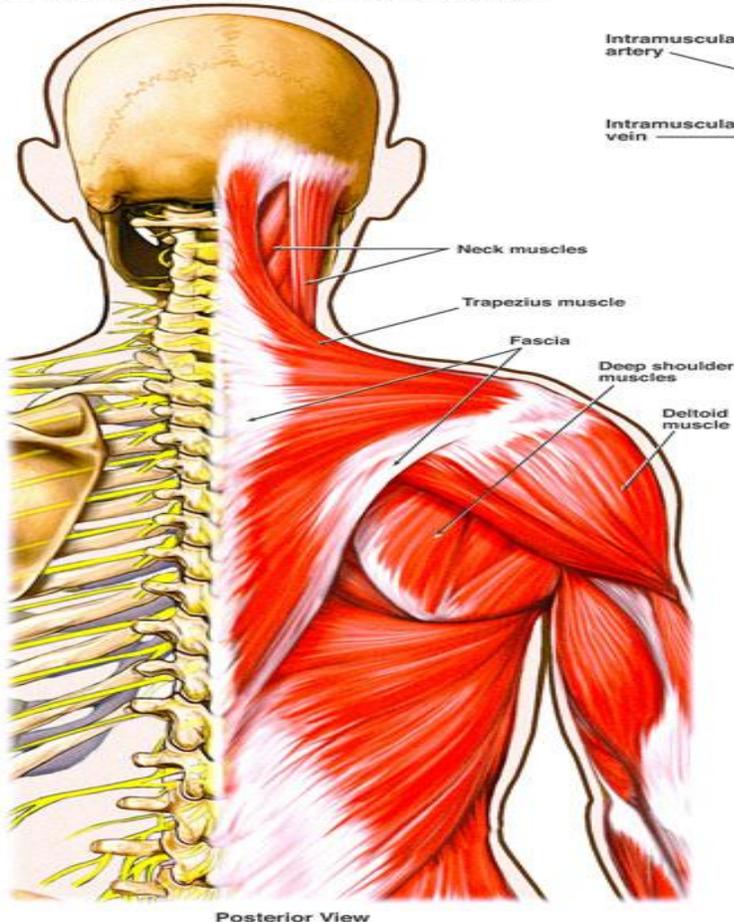


Microscopic view of Damaged, Scarred Tissue
Dis-organized, irregular mis-aligned, painful cells
Similar to Dis-organized, tangled wire

Figure 2

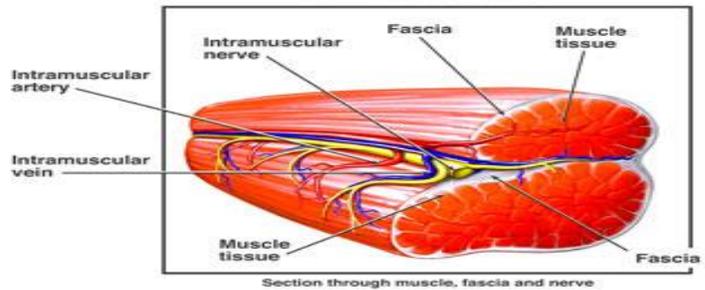


Myofascial injuries commonly occur in cases of whiplash and sudden trauma. Muscle sprain or strain is the usual cause of acute (immediate) and chronic (long-term) pain associated with these injuries.

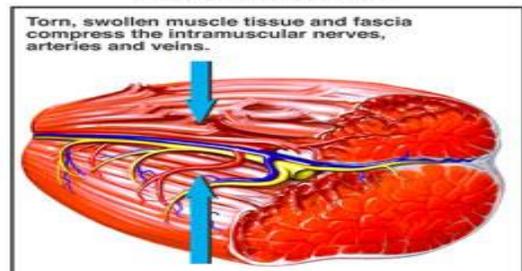


Posterior View

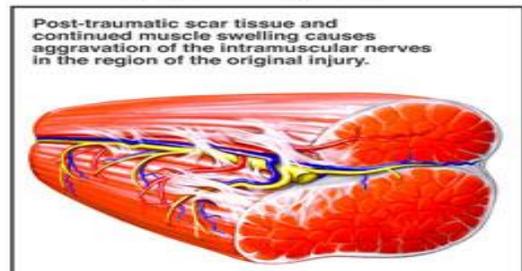
Normal Condition



Acute Condition



Chronic Condition



* These statements have not been evaluated by the Food and Drug Administration. This information is not intended to diagnose, treat, cure or prevent any disease.