

What Is Myofascial Release?

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Myofascial release is a whole-body, hands-on approach for the evaluation and treatment of the human structure. Its focus is the fascial system. Physical trauma, an inflammatory or infectious process, or structural imbalance from dental malocclusion, osseous restriction, leg length discrepancy, and pelvic rotation all may create inappropriate fascial strain.

Fascia, an embryologic tissue, reorganizes along the lines of tension imposed on the body, adding support to misalignment and contracting to protect the individual from further trauma (real or imagined). This has the potential to alter organ and tissue physiology significantly. Fascial strains can slowly tighten, causing the body to lose its physiologic adaptive capacity. Over time, the tightness spreads like a pull in a sweater or stocking. Flexibility and spontaneity of movement are lost, setting the body up for more trauma, pain, and limitation of movement. These powerful fascial restrictions begin to pull the body out of its three-dimensional alignment with the vertical gravitation axis, causing biomechanically inefficient, highly energy-consuming movement and posture.

The myofascial skeletal system, with its combined ability to provide both compressive forces by hydrostatic pressure and tensile strength, creates a space truss system that realistically replaces the post and lintel or lever model. It is imperative that our structure have the ability to respond appropri-

ately to our gravitational field as it plunges down through us. Ideally, we should be balanced around the vertical axis of this constant gravity, otherwise, imbalance almost always shortens the body and increases the expenditure of energy. Myofascial release, along with therapeutic exercise, and movement therapy improve the vertical alignment and lengthen the body, providing more space for the proper functioning of osseous structures, nerves, blood vessels and organs.

“Fascia man” (Figure 5-1) gives a simplified view of how fascial restrictions can spread throughout the body and produce symptoms.

Due to an injury to the lumbosacral area, fascia man may be experiencing occipital headaches, upper cervical pain and dysfunction, feelings of tightness around the thoracic area, lumbosacral pain, and tightness and lack of flexibility in the posterior aspect of the lower extremity. In addition, during traumatization or with the development of structural imbalance, a proprioceptive memory pattern of pain is established in the central nervous system. Beyond the localized pain response from injured nerves, these reflex patterns remain to perpetuate the pain during and beyond healing of the injured tissue, similar to the experience of phantom limb pain. Also in operation is the psychosomatic mode of adaption, which is part of Selye’s general adaption syndrome (see Chapter 8 for a detailed explanation).

Portions of this chapter are adapted and modified from Barnes JF, Smith G. The body is a self-correcting mechanism. Physical Therapy Forum, July 8, 1987. With permission of the publisher.



Figure 5-1. Fascia man demonstrates myofascial restrictions originating in the lumbosacral area. Over time these restrictions spread, creating abnormal pulls and imbalances into the upper cervical region, anteroposterior thoracic regions and posterior lower extremities.

If fascia has tightened and is creating symptoms distant from the injury, all of the appropriate localized treatments will produce poor or temporary results because the imbalance and excessive pressure from the myofascial tightness remain untreated. Myofascial release techniques are therefore performed in conjunction with specific symptomatic treatment. The gentle tractioning forces applied to the fascial restrictions will elicit heat, a vasomotor response that increases blood flow to the affected area, enhance lymphatic drainage of toxic metabolic wastes, realign fascial planes, and most important, reset the soft tissue proprioceptive sensory mechanism. This last activity reprograms the central nervous system, enabling a normal functional range of motion without eliciting the old pain pattern.¹

The goal is to remove fascial restrictions and restore the body's equilibrium. When the structure has been returned to a balanced state, it is realigned with gravity. When these aims have been accomplished, the body's inherent ability to self-correct returns, thus restoring optimum function and performance with the least amount of energy expenditure. A more ideal environment to enhance the effectiveness of concomitant symptomatic therapy is also created.

The therapist or physician is taught to find the cause of symptoms by evaluating the fascial system by visually analyzing the human frame, palpating the tissue texture of the various fascial layers, and observing the symmetry, rate, quality, and intensity of the craniosacral rhythm (see Chapters 10 and 11). The technique requires continuous reevaluation, including observance of vasomotor responses and their location as they occur after a particular restriction has been released. This provides instantaneous and accurate information, enabling the therapist or physician to proceed intelligently and logically from one treatment session to the next, to the ultimate resolution of the patient's pain and dysfunction.

When the location of the fascial restriction is determined, gentle pressure is applied in its direction. This has the effect of pulling the elastocollagenous fibers straight. When pressure is first applied to the elastocollagenous complex, the elastic component is engaged. This has a springy feel. The elastic component is slowly stretched until the hands stop at a firm barrier. This is the collagenous component. This barrier cannot be forced; it is too strong. Instead, gentle sustained pressure will release it (Figure 5-2).

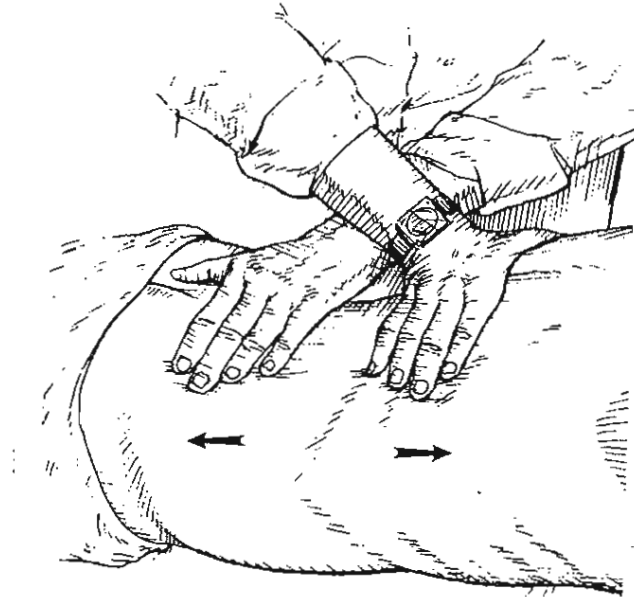


Figure 5-2. To perform myofascial release to the paravertebral area, gentle sustained pressures are applied. As the fascial tissue releases, follow the motion three-dimensionally until you reach the next barrier.

This fact has to do with viscous flow phenomenon, that is, a low load (gentle pressure)

applied slowly will allow a viscous medium to flow to a greater extent than a high load (quickly applied pressure). The viscosity of the ground substance has an effect on the collagen, since it is believed that the viscous medium that makes up the ground substance controls the ease with which collagen fibers rearrange themselves. As this rearranging occurs, the collagenous barrier releases, producing a change in tissue length. It is important to keep in mind the properties of fascial tissue. Viscoelasticity "causes it to resist a suddenly applied force but results in gradual elongation to a constantly applied force over time. Creep is the progressive deformation of soft tissues due to constant low loading over time. Hysteresis is the property whereby the work done in deforming a material causes heat and hence energy loss."² The therapist or physician follows the motion of the tissue, barrier to barrier, until freedom from restriction is felt.

The Arndt-Schultz law also explains how the gentle, sustained pressures of myofascial release can produce such consistent changes and improvements. The law states that "weak stimuli increases physiologic activity and very strong stimuli inhibit or abolish activity."³

The development of one's tactile and proprioceptive senses enhances the "feel" necessary for the successful completion of these techniques. We were all born with the ability to feel the releases and the direction in which the tissue seems to move from barrier to barrier. When first learning myofascial release, students can perform the techniques mechanically. With a little practice, they discover the feel and move to a higher level of achievement.

No prior knowledge of mobilization or manipulation is required to learn the concept and techniques of myofascial release. The procedures should be combined with neuromuscular technique (muscle energy), mobilization, and manipulation by skilled practitioners, however, since it is usually fascial restrictions that created the osseous restrictions in the first place.

The biomechanical, bioelectrical and neurophysiological effects of myofascial release represent an evolutionary leap for our professions and our patients. This is a total approach incorporating a physiologic system that, when included with traditional therapy, medicine, or dentistry, acts as a catalyst and yields impressive, clinically reproducible results.

REFERENCES

- ¹ Barnes JF, Smith G. The body is a self-correcting mechanism. *Physical Therapy Forum*, July 8, 1987.
- ² Twomley L, Taylor J. Flexion, creep, dysfunction and hysteresis in the lumbar vertebral column. *Spine* 1982;7(2):116-122.
- ³ Dorland's medical directory, 26th ed. Philadelphia: WB Saunders, 1985.