

Myofascial Lines

Fascia has been enjoying the limelight in the health and fitness field as one of the hottest topics in recent conference programming, workshops and publications. However, are we scratching their heads and wondering, “Okay, great, it’s important, but what do I do with it? How does this affect my sessions? How do I apply this with my clients?”

A great place to start is with Thomas Myers’s 2001 book *Anatomy Trains: Myofascial Meridians for Manual and Movement Therapists* (Churchill Livingstone 2001), which offers a unique perspective on the body’s internal design and has sparked research into fascia (or connective tissue) and its role in human movement and function.

The fascia covering the muscles you’re working are affecting the entire myofascial net. Fascia forms a whole-body, continuous three-dimensional matrix of structural support around our organs, muscles, joints, bones and nerve fibers. This multidirectional, multidimensional fascial arrangement also allows us to move in multiple directions (Myers 2001; Huijing 2003; Stecco 2009).

Fascia is a Force Transmitter ... It Assists in Absorbing Biomechanical Stress

The internal force (from muscle) and external force (gravity and ground reaction) are dispersed throughout the body primarily via the fascial network (so long as the force is not too great). Fascia helps prevent or minimize localized stress in a particular muscle, joint or bone. It also helps to mitigate momentum through its viscoelastic properties. This protects the integrity of the body while minimizing the amount of fuel used during movement. (Myers 2001; Huijing 2003 ; Sandercock & Maas 2009). The myofascial lines depicted in a book called *Anatomy Trains* shows a clear picture of how the fascia mitigates stress—and force—through the body depending on the direction and application of force.

Fascia Can Act Independently of the Central Nervous System

Fascia is always under tension as long as gravity is present (which is why it’s nice to work in the water). This passive pre-tension that has been called “human resting myofascial tone”, or tensegrity, is connective tissue holding bones in place (Alfonse et al. 2010; Myers 2001). Resting fascial tone provides a low-level stabilizing component that helps our posture and allows us to perform movements like getting in and out of a car without thinking about them.

This resting facial tone may also give us the ability to maintain posture with less fatigue and fascial strain as compared with constant muscle activation and energy expenditure.

Because connective tissue has 10 times more proprioceptors than muscle (Myers 2011), the fascial matrix helps us react to our environment faster than the conscious mind can respond. Whether we are unexpectedly stepping off a curb, reacting to an opposing player in a sport or pulling a hand off a hot stove, the fascia responds first.

The Fascia is the Emotional Body

We need to be aware that working the fascia can create an emotional release. Our emotions are stored within the body including in the connective tissue (Shultz R.L. and Feitis, R.).

The physical response to emotion is through the soft tissue. Feelings are felt in the total body but emotions travel through the fascial web. As they travel, the physiological sensation is interpreted as affection, love, anger, interest etc. The reason a client's neck can't straighten and lengthen may be because of being continually bullied in childhood.

Fascia may become stiffer and less compliant when a client is depressed, anxious and fearful (Shultz & Feitis 1996; Lowe 1989). We sometimes see this when clients show up after having a miserable day. Mood greatly influences posture, movement and proprioception. Perhaps enhancing mood may enhance the physical state through the fascial web.

Functional Anatomy for Functional Results

The more we learn about connective tissue, the more we can integrate it with the other systems of the body (muscular, nervous, skeletal) and gain further insight into human movement and performance. The myofascia can give us a unique perspective on how to maximize the ability to mitigate force, save energy and build endurance while improving multijoint mobility and strength. Training the body as a whole in three dimensions, as opposed to training isolated, segmented parts, may be exactly what clients need.

Review

Whole-body integrated movements are ideal for force mitigation.

Movements must load to unload rhythmically.

Movements that are more subconscious allow for better rhythm and timing (less interference from the conscious centers of the brain).

Movements should be multidirectional and should vary in force and tempo.

Movements should have intent and create positive emotions.

Biomechanics dictate which myofascial line is being upregulated (loaded).

Movements should stay within the client's threshold to prevent unwanted stiffness and immobility.

Application in the Water

For aquatic video clips of Myofascial Release please email Donna Lewen donnalewen@icloud.com. Request UE, LE, Neck, Shoulder, TMJ and/or Trigger Fingers.

References

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