



Fascia matters: Unraveling the mystery of fascia to unlock our body's potential



GUEST CORNER

LIZE
LUBBE

Physical therapy often deals with the intricacies of the body's musculoskeletal system. Among its many components, fascia and muscle play pivotal roles in movement and overall function. While they are both essential for balanced body movement, they serve distinct functions and have unique structures. Understanding these differences is crucial for effective treatment and rehabilitation strategies in physical therapy.

WHAT IS MUSCLE?

Muscles are specialized cells composed primarily of proteins, particularly myosin and actin. These proteins facilitate movement through a contract-release cycle that generates force. Muscles are broadly classified into three types:

1. **Skeletal muscle** is flexible muscle fibers that mainly attach to bones via tendons, govern gross and fine motor movements, such as walking, grasping, and maintaining posture, and play a vital role in thermogenesis (heat production) during physical activity. Their voluntary nature allows for precise control, enabling refined movements and coordination.

2. **Smooth muscle** is involuntary muscle found in the walls of internal organs and is responsible for processes like digestion and circulation.

3. **Cardiac muscle** is involuntary muscle found exclusively in the heart, pumping blood and maintaining circulation.

UNDERSTANDING THE CRITICAL SUPPORTING ROLE OF FASCIA

To provide a foundational understanding: fascia can be likened to the thin, white film found under chicken skin or the delicate membrane that peels from an orange. Yet, this comparison only scratches the surface of the fascia's complexity:

- Fascia is a sophisticated and integral network of connective tissue that exists throughout the entire body, with no definitive beginning or end. This web-like structure comprises layers of fibrous tissue that encapsulate and interconnect muscles, nerves, blood vessels, and organs. Major components of fascia include collagen and elastin, allowing it to adapt to a wide range of movements and provide both tensile strength and elasticity.

- Between the multiple layers of connective tissue, is a gel-like substance called hyaluronan (hyaluronic acid) that facilitates smooth gliding movements among the fascia's layers, reducing friction and potential damage during motion.

THE MULTIFACETED FUNCTIONS OF FASCIA

Fascia acts as a protective barrier,

shielding muscles and organs from injury while also allowing for flexibility and movement. Its structure enables it to absorb shocks and distribute mechanical stress during various activities, reducing the risk of strains and injuries. A healthy fascia is flexible and stretches with you.

1. **Structural support and stability:** fascia provides the necessary structure and stability to maintain the alignment of muscles, organs, blood vessels, and nervous tissues. It acts as a supportive framework that helps keep various body parts in place, ensuring optimal function during dynamic activities.

2. **Facilitating movement:** by allowing muscles and associated tissues to slide smoothly over one another, fascia plays a crucial role in enabling fluid movements. Its design allows to stretch and adapt making it essential for coordination and movement efficiency.

3. **Sensory communication:** fascia is densely packed with nerve endings (approximately 250 million) making it one of the richest sensory organs in the body, transmitting signals regarding pain, tension, or relaxation to the brain. Sensations often attributed to muscle activity may originate from the fascia intertwined with muscle fibers.

4. **Proprioception** (our body's ability to perceive its position and movement in space) **and coordination:** when you move, fascial tissue sends crucial feedback to the central nervous system ("CNS"), which interprets these messages and relays instructions back to the muscles. This process ensures timely and appropriate responses to physical changes, enhancing coordination and reducing the risk of injury.

5. **Healing and restoration:** when an injury occurs, fascia can become inflamed and restrict movement, but its ability to remodel and adapt can aid recovery.

6. **Emotional and stress response:** there's a growing understanding of the connection between fascia, stress, and emotional well-being. Tight fascia may reflect or contribute to physical manifestations of stress, tension, or trauma by storing emotional energy.

HOW PHYSICAL THERAPY CAN HELP TO MAKE A DIFFERENCE

Physical therapy can play a crucial role to restore tight fascia and enhance overall function by:

1. Conducting a comprehensive evaluation to understand the patient's specific condition, identifying areas of tightness, restrictions, and potential underlying issues.

2. Performing a biomechanical assessment which analyzes movement patterns and helps identifying factors that contribute to fascia tightness.

3. Applying manual rehabilitation techniques to release tension such as Myofascial release, trigger point, mobilization, end range stretches, sensory input for mind body connections.

4. Treatments to enhance mobility (since fascia plays a vital role in motion) by manipulating fascial restrictions to

increase flexibility and overall mobility.

Fascia trains through recoil, multidirectional rhythm stretches, sensory mindful body perception vibration and end range tension stretches to allow for freer movement of muscles and joints. *

5. Pain management modalities to improve blood flow, reduce pain and tension and aid in relaxation of the fascia.

6. Therapeutic interventions that improve posture, reduce compensatory patterns, and thereby prevent further musculoskeletal issues.

7. Therapeutic exercises to improve coordination and proprioception (since fascia is integrated within the sensory system) to improve awareness of body position and movement in space.

8. Therapeutic interventions to improve emotional and stress response such as guid-

ance about correct breathing methods to stimulate the Vagus nerve to help balance the parasympathetic and sympathetic systems.

9. Education and self-management with home exercise, foam/ball rolling techniques, and correct breathing and body mechanics.

By unraveling the mystery of fascia and understanding its critical function in our body and health, we unlock not only the body's potential but also optimize the pathway to healthy performance and longevity. If you are experiencing pain or discomfort, consult a healthcare professional for an accurate diagnosis and appropriate treatment plan.

*<https://fasciaguide.com/experts/robert-schleip/>

The LLPT-team sends all our readers positive energy and health for a joyous Thanksgiving with your loved ones.



Lize Lubbe is the owner of Lize Lubbe Physical Therapy with its main practice located at 892 Route 35 in Cross River 190 Goldens Bridge Rd/Rt 22 in Katonah and a PT Studio in the premises of Apex Fitness (where her team focus on the rehabilitation of sports-related injuries). Learn more by calling 914-875-9430, emailing contact@lizeclubbept.com or visiting www.lizeclubbept.com.

We have moved. Note our new address at 190 Goldens Bridge Road/ Route 22, Suite 5 (at the lower level), Katonah, NY 10536.

It is an easily accessible location with ample parking.



We are hands on PTs!

The professional services of the team at **Lize Lubbe Physical Therapy** provides a wide range of PT rehabilitation services to patients young & old, including:

- Pre & Post Surgery Rehabilitation
- Sports Injury Rehabilitation
- Neurological Rehabilitation
- Treatment of Musculoskeletal & Orthopedic Conditions
- Postural, Balance & Gait Training
- Pain & Headache Management
- Body Rebalancing Through Diaphragm Breathing & Pelvic Stability



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