69a Introduction to Myofascial Release: The Structure and Function of Fascia

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Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
55 minutes	Lecture: Structure & Function of Fascia

1 hour Total

Add the Ublec activity to this lecture where appropriate.

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Class Reminders

Exams:

- 70a Exam

Special Reminder:

- 71b Sports Massage: Technique Demo and Practice – Pre-Event and Post-Event
  - Please wear athletic clothing to this class.
  - You will be giving and receiving several 10-minute pre- and post-event massages in an athletic context

Preparation for upcoming classes:

- 70b Chair Massage, BMTs, Passive Stretches, and Side-lying Massage
  - Packet C: 11-12

Classroom Rules

Punctuality - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

The following are not allowed:

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

You will receive one verbal warning, then you'll have to leave the room.

Classroom Rules

Cell Phone – Turn it off!

And put it away!

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Class Handouts

Structure

- What is this stuff?
- Where is it?
- How is it arranged?

Elements of Fascial Structure – Types of Fascia

Superficial

1. Located just beneath the skin – comprised of fat and connective tissue

2. It helps to insulate the body, provides a cushion against physical impact, and acts as an anchor for the skin.

Elements of Fascial Structure – Types of Fascia

Deep

1. Surrounds the **muscles**, **bones**, **nerves**, and **blood vessels**

2. Provides structural support and transmits the force generated by **muscle contractions**

Elements of Fascial Structure – Types of Fascia

Visceral

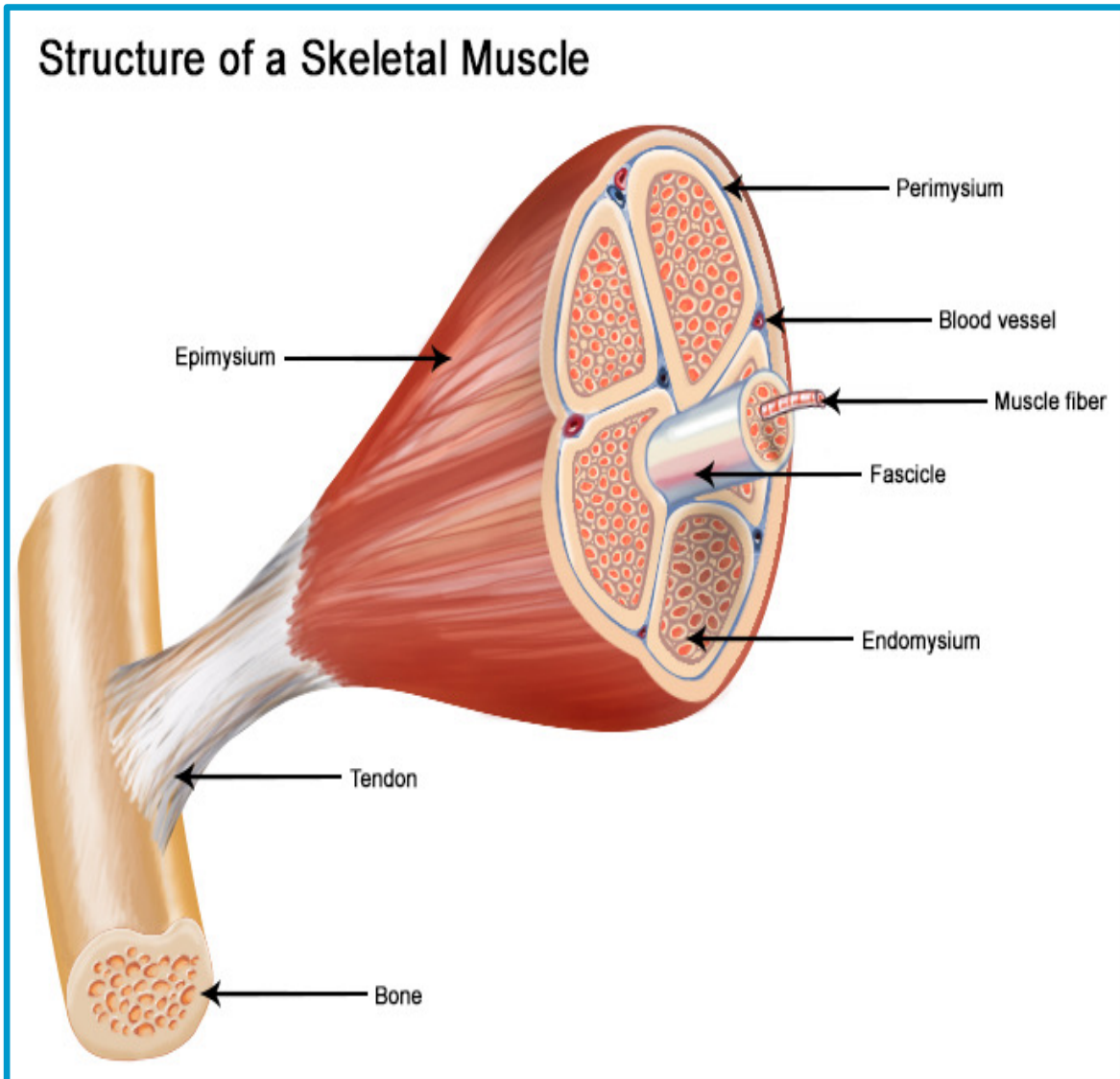
1. Surrounds and supports the **internal organs**
2. Keeps everything in place
3. Can glide against other fascia during **bodily functions**

Elements of Fascial Structure

- **What is it?**
  - **Simply put**: It is composed primarily of **collagen fibers.**
  - It is a continuous network of **connective** tissue that surrounds and supports structures throughout the body.

Elements of Fascial Structure - Musculoskeletal

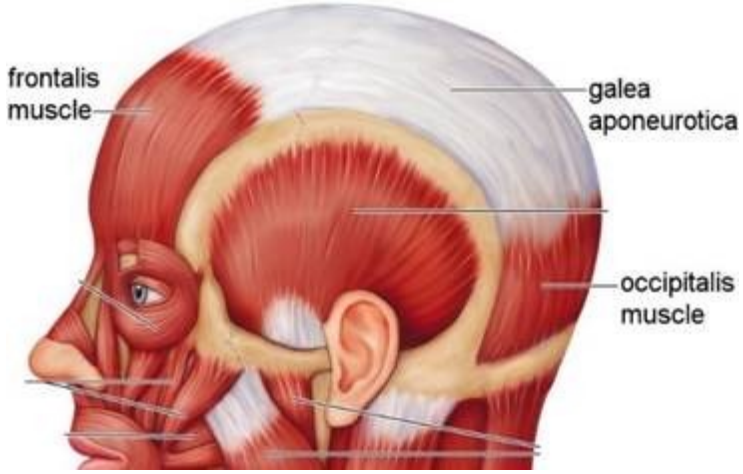
- Musculoskeletal fascia is continuous and surrounds every muscle, fascicle, and fiber from the top of your head to the plantar surface of the feet, and everywhere in between!

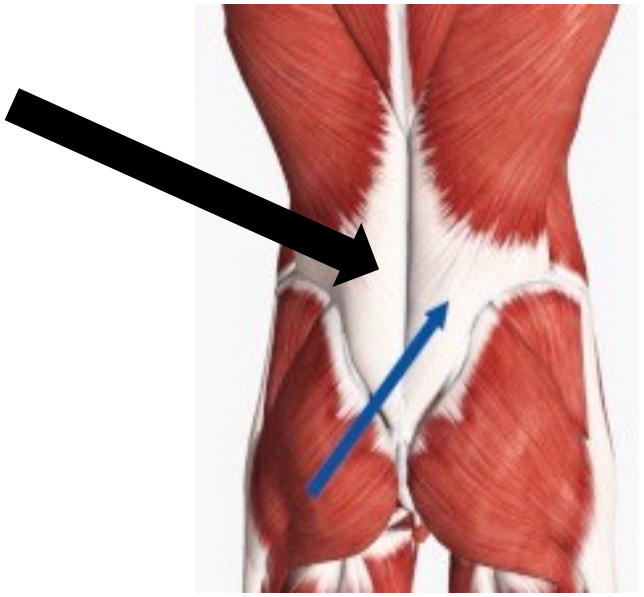


Elements of Fascial Structure - Musculoskeletal

The fibers can be arranged in a variety of ways, which determine the **tensile strength** and stretchability of the particular structure.

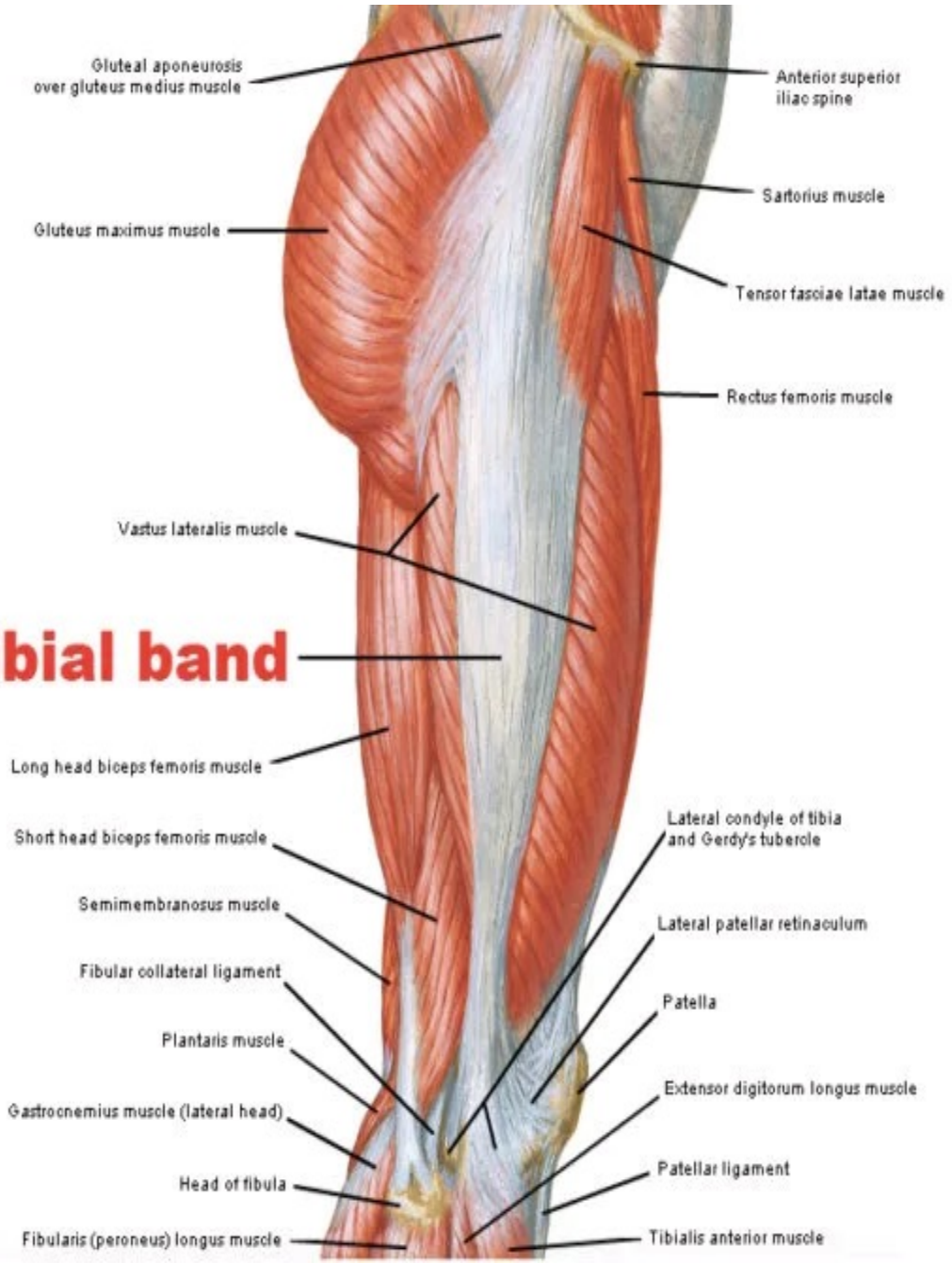
- For example: An **aponeurosis** is a broad, flat sheet of fascia that can act as an anchor for many muscles pulling in different directions (Like the Galea Aponeurotica or **Thoracolumbar Aponeurosis**)





- Another example:

  Collagen fibers can be arranged in a **<u>rope-like</u>** structure like the Iliotibial Band (IT Band)



Function

- How does it behave?
- Why and How can it “stretch” or “release”?

How does fascia "behave"?

- Fascia serves many functions:

1. **Structural Support** – helping to maintain the **integrity** of the body by providing a framework to help **distribute mechanical stress** during **movement**

2. **Protection** – cushioning **muscles and organs**

3. **Movement Facilitation** – transmitting **mechanical forces** generated by muscles

4. **Compartmentalization** – divides the body into "**pockets**" to determine direction of movement or to help contain infection or injuries

5. **Sensory function** – it contains sensory receptors that provide feedback about position and movement, playing a role in **proprioception** (our spacial awareness)

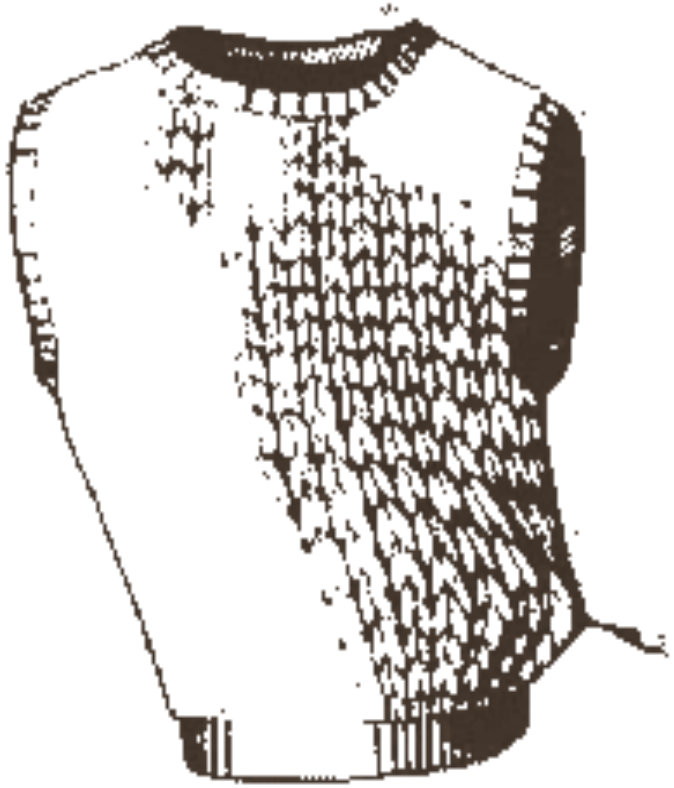
Fascial Health – Why & how can it stretch?

- Fascia has **elastic** properties which allow it to stretch and return to its original shape (like a rubber band!)
- It also has "**plastic**" properties, meaning it can adapt to sustained tension by lengthening over time
  - This is evident in a person's level of flexibility and range of motion
- Healthy fascia is **well-hydrated**, which aids in its ability to glide against other structures and maintain or increase a person's **flexibility** and **range of motion.**
- Fascia is **avascular** (does not have blood supply), but it DOES have the ability to allow for blood-flow around and through its fibers – which is vital for health and mobility.

LET'S WATCH "THE FUZZ" VIDEO!!!

How can fascia "stretch"?

- Any work you do affects the fascia of the rest of the body – like tugging on the thread of a knit sweater or a washcloth!
- Fascial lines work in diagonal or "X" patterns
  - Think of how this relates to the sweater:
  - When you pull in a longitudinal or latitudinal direction, there will not be as much translation of force as there would in a diagonal / oblique / bias stretch
  - There is much more translation of force in aponeuroses than strap or rope-like formations because of the need for a wider variety of action directions for pull.



Fascia has a few distinct patterns in the human body:

Dysfunction

- **What can go wrong?**
- **Why is it important to address?**

Elements of Fascial Dysfunction – What can go wrong?

- **Dehydration –**

  when the body is deprived of adequate water, every fiber is affected

  - This can lead to fascial stiffness and **adhesions**

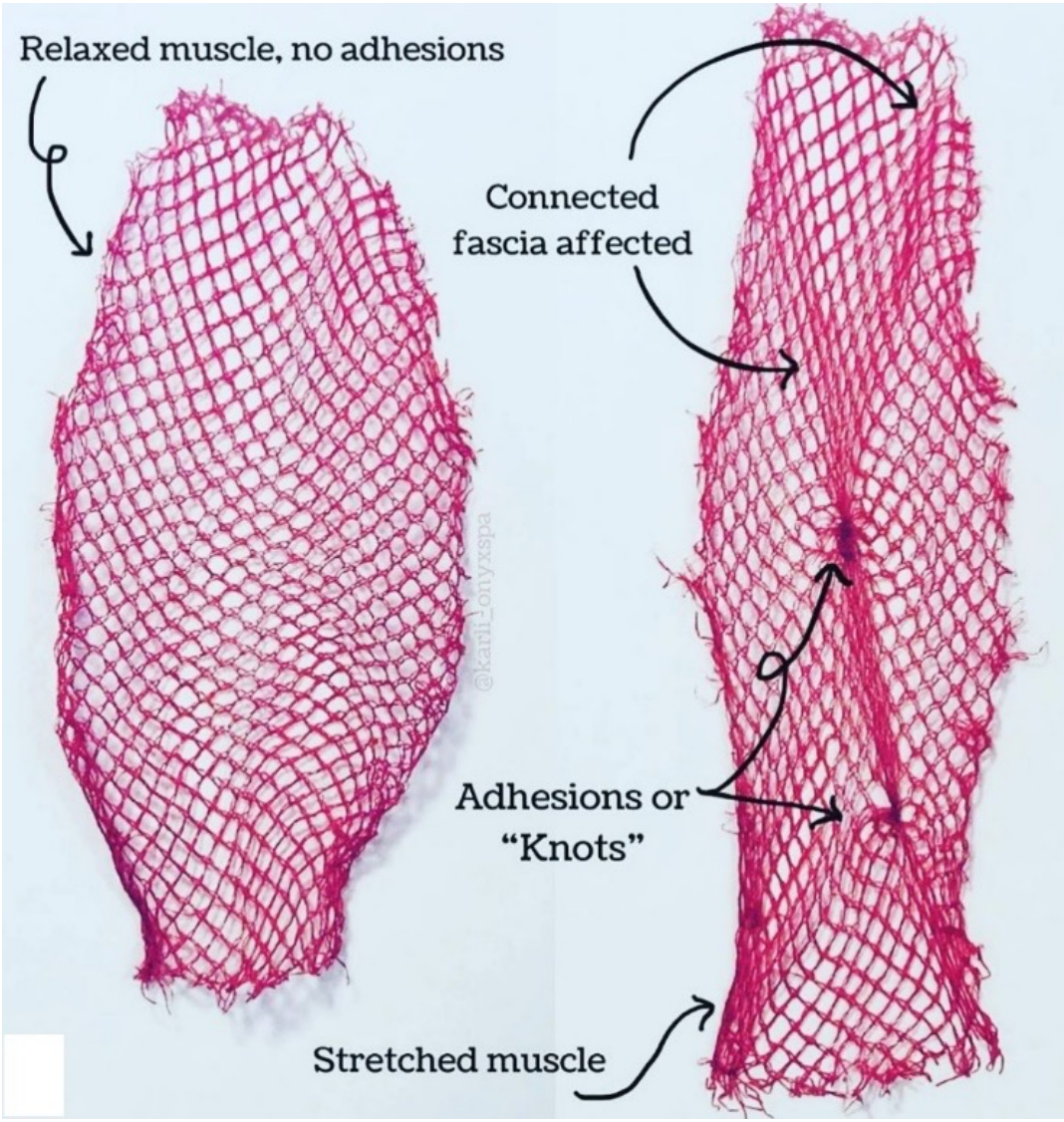
Elements of Fascial Dysfunction – What can go wrong?

- **Adhesion = fancy word for "glue"**
  - Layers of fascia stick together, reducing mobility and causing pain

<u>Has anyone here ever had or heard of a"knot"?</u>

Guess what?

That's an adhesion!



Elements of Fascial Dysfunction – What can go wrong?

- Fasciitis = **<u>Inflammation</u>** of the fascia
- Plantar fasciitis affects the …

  you guessed it …

  plantar surface of the foot!

How can LMTs help?

- **Assessment**
  - Observation of posture, movement patterns, compensations
  - Palpation of superficial tissue and noticing areas of tension or restrictions

- **Soft tissue manipulation (the basic components in each MFR session)**
  - Slow, sustained pressure at an **oblique** angle
  - No **lubricant** (also important that the client have no lotion on their bodies!)

- **Trigger Point therapy**
  - Using **ischemic** (or "pinpoint") compressions

- **Stretching / Movement Integration**
  - **Passive** AND **active**

How can LMTs help?

- **<u>Client feedback</u> to ensure comfort and effectiveness**
- **Home care recommendations**
  - Hydration
  - Stretches
  - Postural Awareness

Engaging the client's participation is crucial to success!

How effective is MFR?

- Effectiveness may vary depending on factors such as:
  - the condition being treated
  - the skill level of the therapist
  - the frequency and duration of treatment.

- Numerous studies and clinical trials have demonstrated positive outcomes when MFR is incorporated into bodywork sessions.
  - improvements in pain reduction
  - increased range of motion
  - enhanced muscle flexibility
  - overall well-being for various conditions such as:
    - musculoskeletal disorders
    - chronic pain syndromes and
    - postural imbalances.

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