

# MYOFASCIAL RELEASE

DR. ASIF ISLAM PT  
SMC.UOS

# MYOFASCIAL RELEASE

- ✘ The Process of De-Facilitated Fascial Release
- ✘ Position the body for Strain Counterstrain
- ✘ Maintain the position for 90 seconds (2 to 3 minutes for the neurologic patient).
  - ✘ • Focus on
    - ✘ all tissue tension changes,
    - ✘ movements,
    - ✘ pulses,
    - ✘ rhythms.
  - ✘ • While there are changes occurring, maintain the Strain/Counterstrain position with precisely the same forces, not allowing any physiologic movement to occur.
  - ✘ • Continue to maintain this position until all tissue tension changes have ceased completely.

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- ✘ The practitioner is maintaining a fixed point around which the tissue can unravel (Fascial Fulcrum Release).
  - ✘ The unwinding of the fascial tissue that occurs secondary to the continuation of the Strain/Counterstrain technique will happen secondary to the de-facilitation of the spinal segments. This unwinding will not occur unless initiated with the Strain/Counterstrain.

# FASCIAL CONCEPTS

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- ✘ Tissues are the matrix of the body, composed of cellular elements and their derivatives.
- ✘ The cells may be held together by the adhesions of their surface membranes, or by protoplasmic connections;
- ✘ they may be scattered throughout an intercellular ground substance containing tissue fluid, fibrous elements, and organic material.
- ✘ A tissue is a collection of cellular and fibrous elements in which one unique type of cell or fiber predominates.

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× The four primary body tissues include:

**epithelial tissue**

- × for protection,
- × secretion,
- × absorption;

**muscular tissue**

- × For contraction;

**nervous tissue**

- × For irritability and conductivity;

**connective tissue**

- × for support,
- × nutrition,
- × defense.

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- ✘ The connective tissue is a highly specialized and complex tissue.
  - ✘ The connective tissue contains and comprises blood vessels and lymphatic vessels in order to implement the functions of nutrition, defense, and repair.
  - ✘ The cells and fibers dispersed throughout the connective tissue system are embedded in a matrix of semi fluid gelatinous substance

# CONNECTIVE TISSUE PROPER

. Connective tissue can be grouped as follows:

- **Loose connective tissue (areolar).**

- ✗ This tissue contains spaces of fluid, and is involved in cellular metabolism.

- ✗ Intercellular substances include:

- (a) collagenous or white fibers:

collagen fibers are parallel fibers bound together in bundles giving it **tensile strength**;

- (b) elastic or yellow fibers:

elastin contributes to the **elasticity**;

- (c) reticular fibers:

the delicate collagenous fibers function to **support** cells.

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- **Dense connective tissues.**
  - **Regular connective tissues:**
    - × Tendon,
    - × Fibrous membranes,
    - × Lamellated connective tissue.



# SPECIAL CONNECTIVE TISSUE

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- Mucous
- ✗ Elastin: fibers running singly, branching freely, and anastomosing with each other.
- Reticular
- Adipose
- Pigmented
- ✗ Amorphous
- Ground
- ✗ Cartilage
- ✗ Bone
- ✗ Blood and Lymph

# FASCIA

- ✘ Fascia is a rough connective tissue that spreads in a functional 3-dimensional web from the head to the toe.
- ✘ Fascia gives the body form; if all other tissues and structures were removed from the body, the body would retain its shape.
- ✘ This is because every muscle, bone, organ, nerve, and vessel is wrapped in fascia.
- ✘ The fascia separates, supports, binds, connects, and defends everything.
- ✘ The fascia extends to form muscular attachments, to support membranes, to provide intermuscular septa, to give visceral ligamentous attachments, and to invest sheaths for blood vessels and nerves.

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- ✘ The connective tissue found in the interstitial tissues of the viscera forms the **membranes** through which the osmotic processes of nutrition and elimination take place.
  - ✘ The **pressure and tissue tension** provided by the fascia have a marked influence upon the osmotic exchange of fluid.
  - ✘ The fascia affects the delivery of the metabolites into the filtering capillaries.
  - ✘ The fascia affects the **osmotic balance** which exists between the circulatory fluids and the tissue fluids, which preserves physiologic balance.

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- × **Functionally**, the fascia can be separated into layers:
  - × **superficial fascia**, which adheres to the undersurface of the skin
  - × **deep fascia**, which envelopes and separates muscles, surrounds and separates internal organs, and contributes to the contour and function of the body.

# MANUAL THERAPY AND FASCIAL/MYOFASCIAL DYSFUNCTION

## Neuromusculoskeletal dysfunction

causes postural dysfunction.

- ✘ Postural dysfunction produces fascial tensions.
- ✘ The traction produced by postural dysfunction upon the sensory nerve elements within the connective tissue system may produce pain.
- ✘ As a manual practitioner develops the specialized sense of touch necessary for diagnosis of tissue disorders, differential diagnosis is facilitated.
- ✘ Education of tactile senses can determine if tissue is tense, relaxed, or altered due to imbalance of tissue chemistry.
- ✘ The development of palpation skills is essential for diagnosing fascial dysfunction.

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- ✘ Fascial dysfunction can contribute to changes in health: local, regional, and total body.
  - ✘ Ligamentous tension alterations are important In joint lesion pathology.
  - ✘ Stretching of ligaments can result in hypermobility of joints.
  - ✘ Dislocations of bone, whether mild with imbalance of the articular surfaces, or severe, will result in tendon tension.
  - ✘ This tendon tension is transmitted to muscle fibers which produces compensatory hypertonicity and muscle contractions.

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**Immobilization** may result in fascial dysfunction.

- ✘ Research has provided evidence that long periods of immobilization produces
- ✘ Muscle atrophy,
- ✘ joint stiffness,
- ✘ ulceration of joint cartilage,
- ✘ osteoarthritis,
- ✘ skin necrosis,
- ✘ infection,
- ✘ tendocutaneous adhesion,
- ✘ thrombophlebitis,
- ✘ varying degrees of contracture.

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✘ Research has provided evidence that synovial fluid post immobilization has excessive connective tissue deposition in the joint and joint recesses.

After a time, the excessive fibrous connective tissue deposits form mature scar and create intraarticular adhesions.

Post immobilization, matrix changes have been reported in ligament, capsule, tendon, and fascia.

Research has also provided evidence that functional loading can cause regeneration of tendons.



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- ✘ Enwemeka performed research which showed that controlled passive mobilization promotes gliding and accelerates the rate of healing of tendons.
  - ✘ With the immobilization,
  - ✘ reports of water loss, increased synthesis of new collagen, and an increase in the cross-links between collagen fibers have been presented.
  - ✘ The excessive and abnormal crosslink formation between fibers contributes to joint restriction.

# FASCIAL RELEASE TECHNIQUES CAN BE DIRECT OR INDIRECT TECHNIQUE.

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- ✘ Direct Techniques
- ✘ Move the tissues to the barrier on 3 planes.
- ✘ The tissues are loaded in the direction of the least mobility.
- ✘ A relaxation in the tissue tension will result from the treatment, and heat will be released in the tissues.

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- ✘ Indirect Techniques
  - ✘ On 3 planes the tissues/joints are moved away from the barrier, into the direction of the most mobility.
  - ✘ A relaxation in the tissue tension will result from the treatment, and heat will be released from the tissues.

# TISSUE RELEASE

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- ✘ The therapist monitors tissue tension during Manual Therapy techniques.
- ✘ When the tissue tension changes, softens and relaxes, this is a tissue release.
- ✘ These releases occur during a treatment technique.

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- ✘ This decrease in tissue tension during Manual Therapy has been attributed to several factors.
  - ✘ One factor is the **decrease in gamma gain and efferent gain from the central nervous system**, resulting in a relaxation and elongation of muscle fibers.
  - ✘ Another factor is the **change of elastic resistance to viscous compliance due to morphologic changes**.
  - ✘ There is an apparent relaxation of these elastic fibers.
  - ✘ Tissue tension release occurs simultaneously with a perception of increased fluid throughout the tissues, and a sense of increased energy throughout those tissues treated.

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- ✘ During the treatment technique,
  - ✘ heat is emanated from those body tissues,
  - ✘ There is a sensation of movement,
  - ✘ filling of space,
- these changes increases during the treatment technique and subsides as the correction of the neuromusculoskeletal tissue is completed.

# FASCIAL FULCRUM TECHNIQUES

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- ✘ There are two generic fulcrum fascial release
- ✘ techniques:
  - ✘ • Soft Tissue Fulcrum Myofascial Release
  - ✘ • Articular Fulcrum Fascial Release
- ✘ Application
- ✘ This technique can be performed mechanically with excellent results.
- ✘ Development of palpation skills will enhance these results.

# SOFT TISSUE MYOFASCIAL RELEASE TECHNIQUE

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- ✘ Soft Tissue Myofascial Release techniques can
- ✘ be performed where positive myofascial mapping, decreased fascial glide, static postural dysfunction,
- ✘ and dynamic limitations in motion indicate positive findings of dysfunction.
- ✘ Example: Soft Tissue Myofascial Release of the Knee



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- ✘ Example: Articular Fascial Release of the Knee Joint

