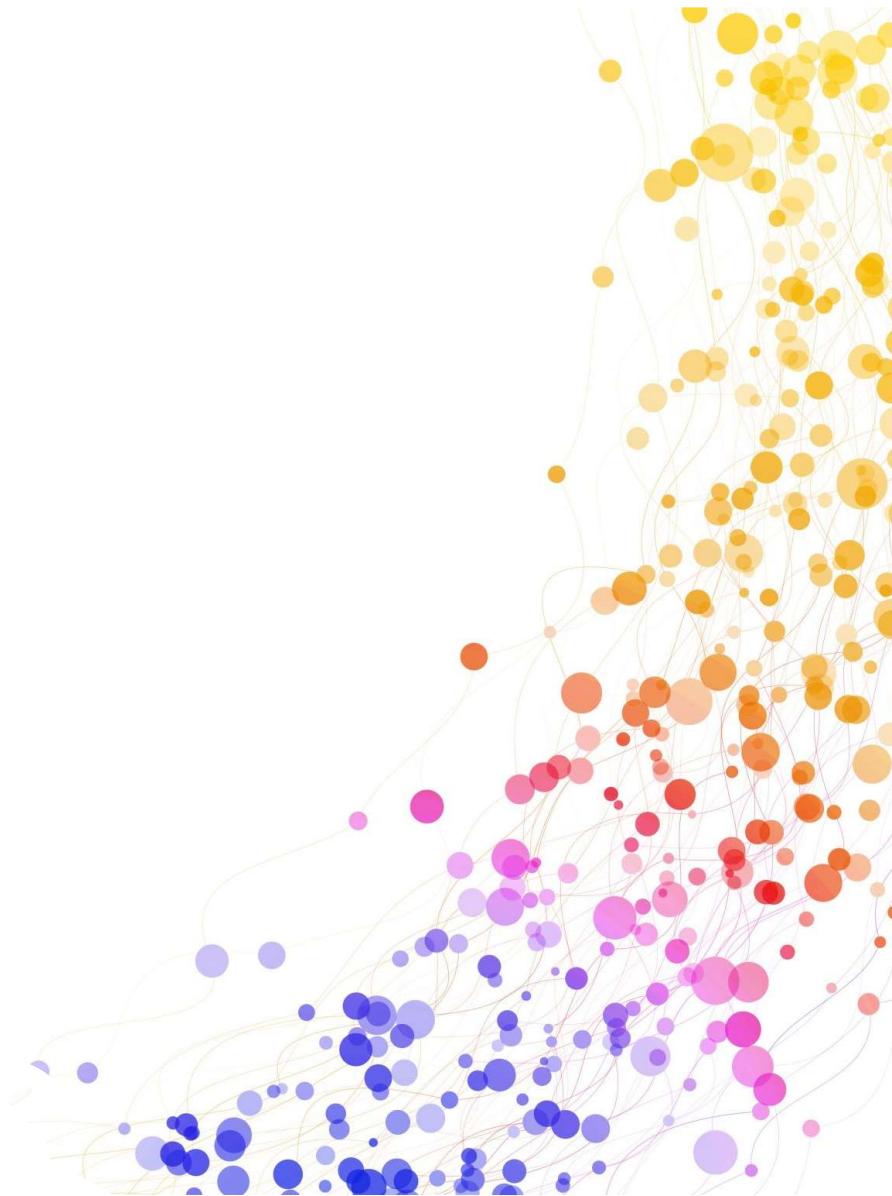


Introduction to Myofascial Release

VICTORIA P WILLIAMS DO 2025
ADAPTED FROM KIM WOLF DO 2024



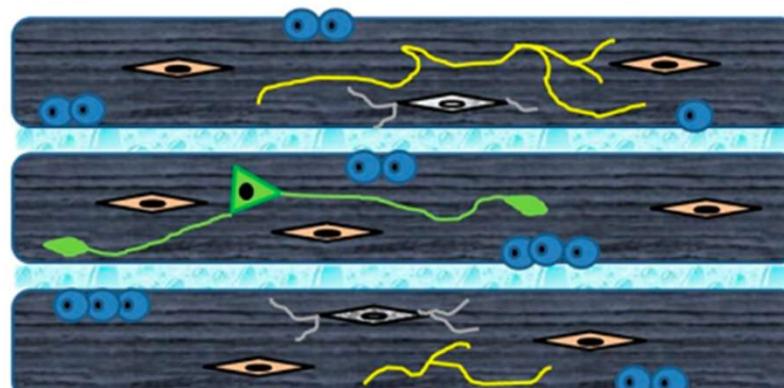
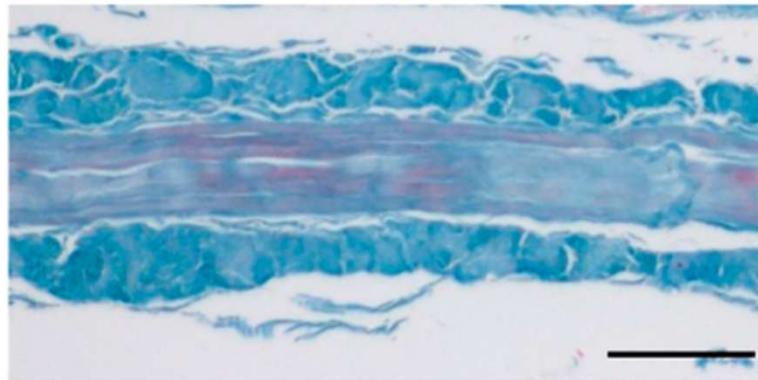
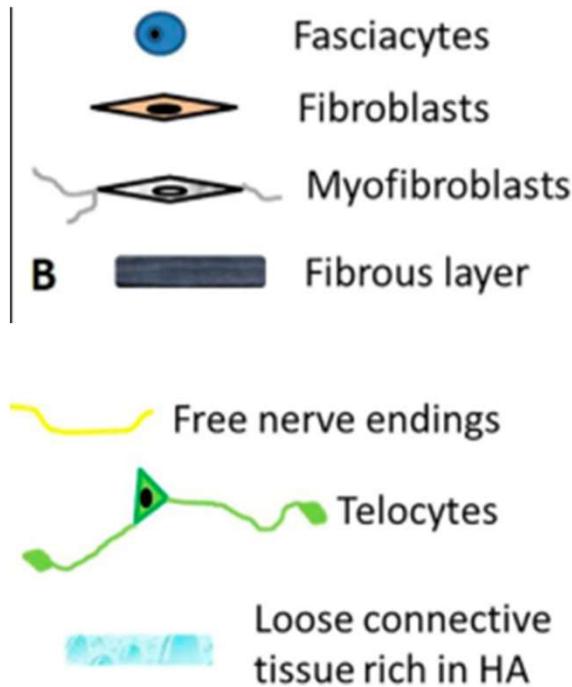
Objectives

1. **Define fascia** and describe its structural and functional properties.
2. **Explain the histologic and physiologic behavior** of fascia, including its response to tension, fluid pressure, and manual force.
3. **Differentiate direct vs. indirect myofascial release** based on direction of ease and engagement.
4. **Describe the principles and mechanisms** behind myofascial release, including the role of mechanotransduction and glide.
5. **Demonstrate proper hand placement, palpation, and treatment setup** for introductory myofascial release techniques.
6. **Recognize clinical indications and contraindications** for using MFR in patient care.

What is Fascia?

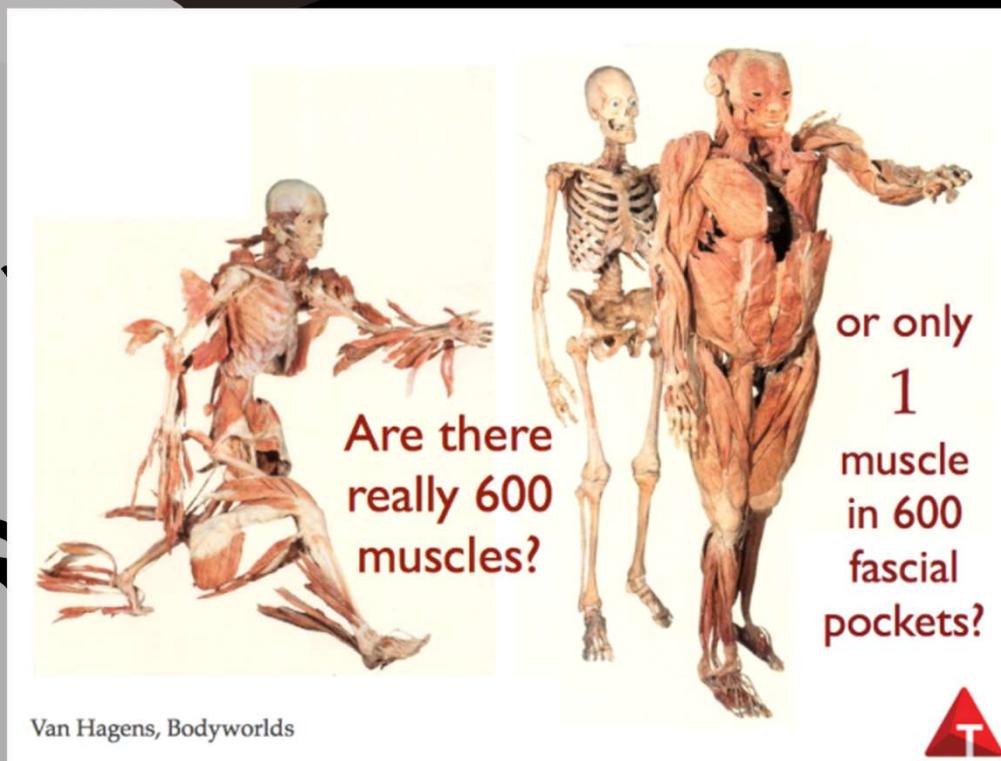
Connective tissue - **cells + fibers + ground substance** in an **extracellular matrix**.

living spiderweb woven throughout the body
organized in layers but also fluid and adaptable
all connective tissue is connected!



Microscopic anatomy of the human deep/muscular fascia. (A): Human fascia lata of the thigh—Azan Mallory staining Bar 250 µm; (B): schematic representation.

What is Fascia?



Body Worlds: FREIA



fascia gives the human form

What is Fascia?

Superficial Fascia

Just under the skin; loose, stretchy, sometimes contains muscle (e.g. face, neck).

Deep Fascia

Dense tissue around muscles, bones, nerves, vessels.

- *Aponeurotic*: thick, separable
- *Epimysial*: thin, tightly bound to muscle

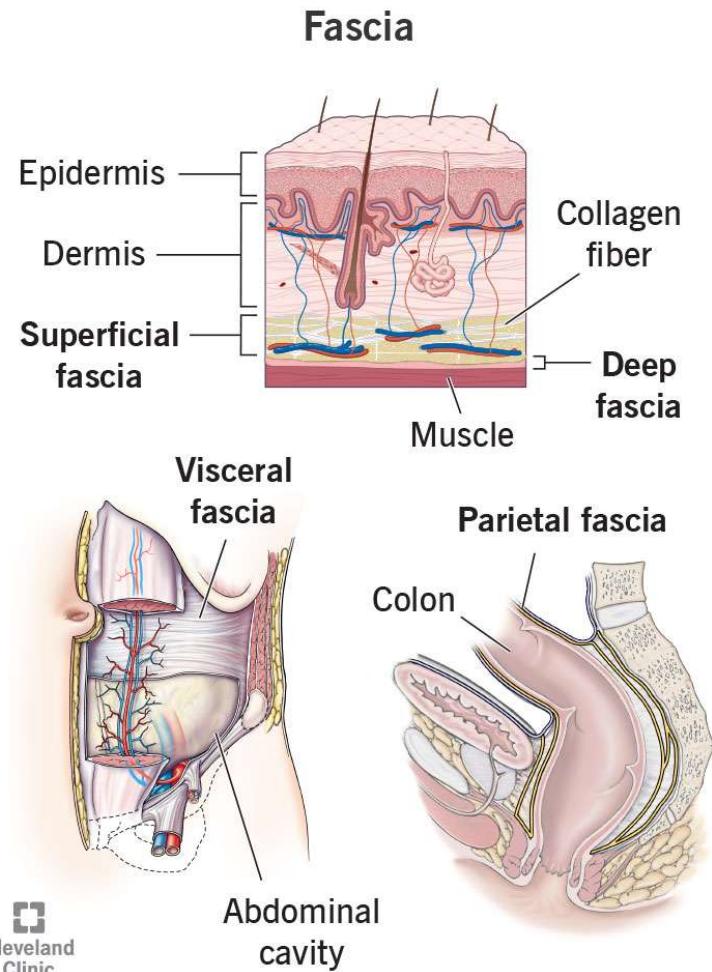
Visceral Fascia

Surrounds internal organs (lungs, heart, GI tract).

Parietal Fascia

Lines body cavities (pelvis, abdomen); anchors viscera.

layered pocketed structure but is continuous



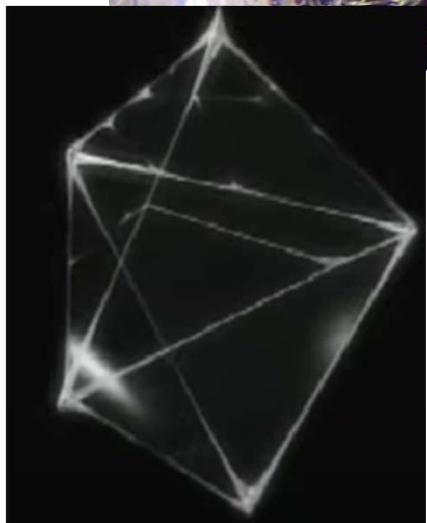
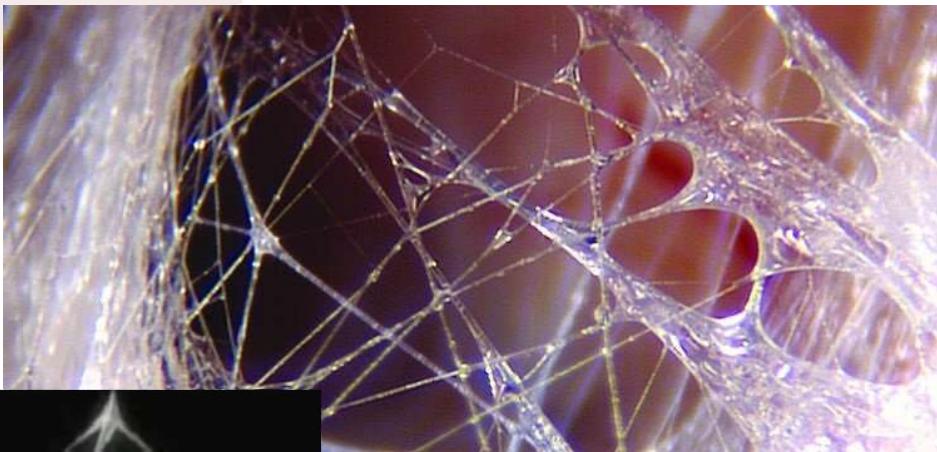
 Cleveland
Clinic
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[Cleveland Clinic](#)

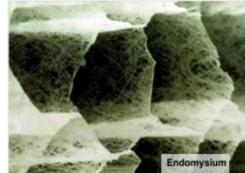
Adobe Stock

What is Fascia?

dynamic fractal matrix
structural and fluid networks



New terminology:
Fascia = all collagenous soft connective tissues



Collagen (mostly Type I & III)

- Provides tensile strength
- Resists stretch
- Major structural element

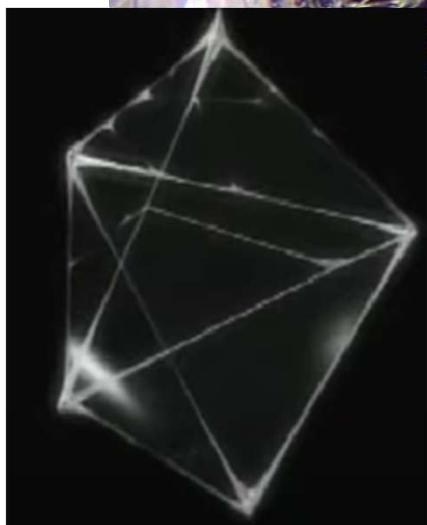
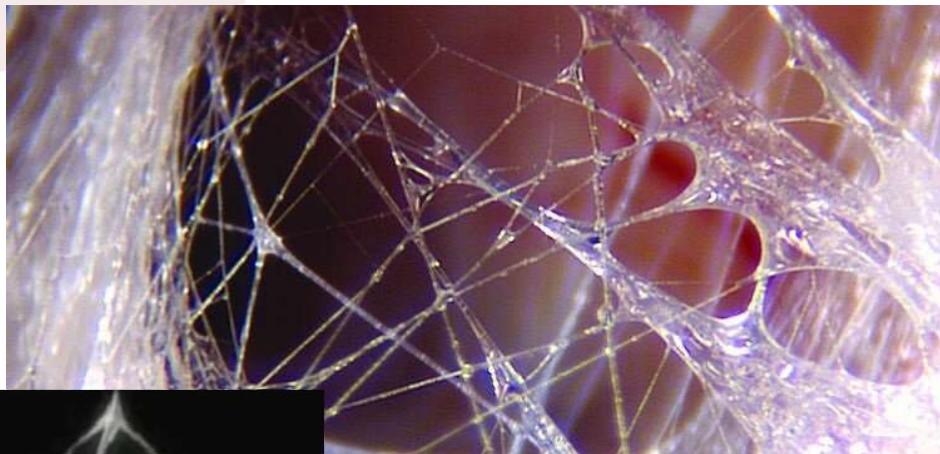
Elastin

- Allows elastic recoil
- Enables tissues to stretch and return to shape

Ground substance: gel-like matrix that fills the space between fibers and cells:

- Made of glycosaminoglycans (GAGs) and proteoglycans (e.g., hyaluronic acid)
- Helps with hydration, lubrication, and nutrient diffusion
- Plays a huge role in viscoelasticity and sliding between layers

What is Fascia?



“Polyhedral, fractal, fluid-filled tensional structure”

“Multi-micro-vacular collagenic absorbing system was to be found everywhere in the body”
where ...

“Each microvacuole is in constant movement, and every microtension creates a global reorganization of the fascial web.”

— Guimberteau, *Architecture of Human Living Fascia*

The behavior of fascia

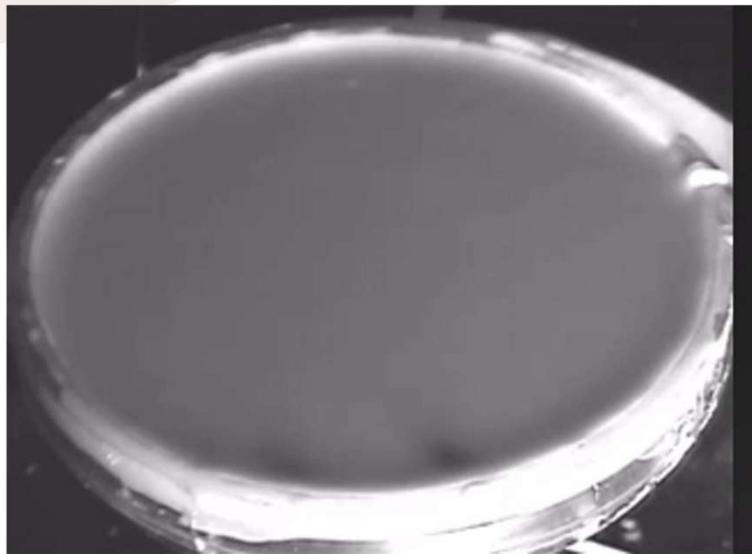


[Dr Guimberteau's Strolling Under the Skin](#)

living fascia under magnification

- **Shimmering Microvacuoles:** Tiny fluid-filled pockets form between collagen fibers, visibly shimmering as the fascia adjusts to movement.
- **Hydraulic Force Redistribution:** These micro-chambers compress, rupture, and re-expand, transmitting and redistributing mechanical forces through fluid.
- **Dynamic Fiber Morphing:** Collagen strands actively slide, twist, and reorganize in real time — shifting between string-like and sheet-like structures.
- **Living Matrix Behavior:** Fascia is a fluid-responsive, self-remodeling system, not static tissue — responding adaptively to every motion.

The fluid nature of fascia



Anatomy Trains recording of "Fingers and Holes in a Shaken Cornstarch Solution"
Robert D. Deegan
Florian S. Merkt
Harry L. Swinney
Center for Nonlinear Dynamics
University of Texas at Austin
[YouTube link](#)

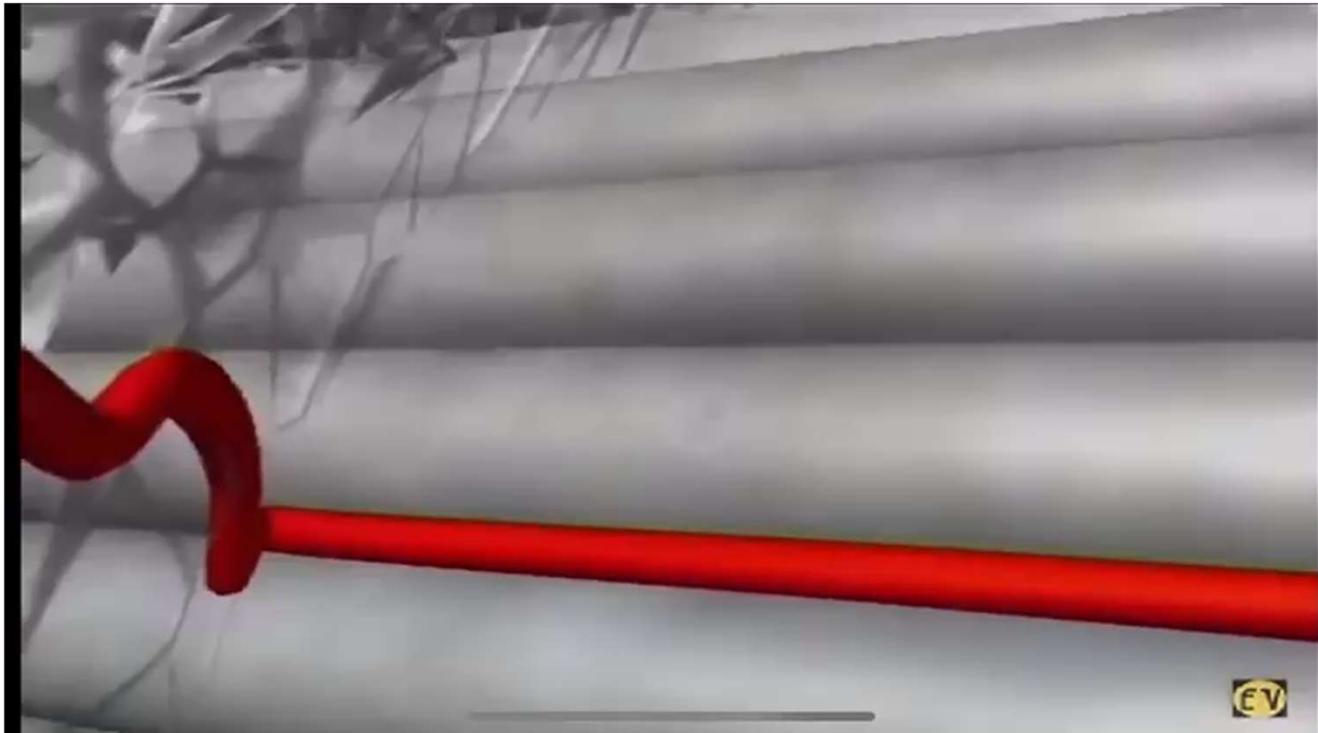
Oobleck experiment

[Science Direct: Fascia](#)

- **Viscosity changes with force:** Like oobleck or custard, fascia acts liquid under slow movement, but firms up under sudden pressure, adapting its resistance in real time
- **Thixotropic behavior:** With gradual pressure, fascia becomes more fluid, enhancing mobility and glide; under fast strain, it solidifies to protect and stabilize
- **Clinical implications:** Knowing fascia's non-Newtonian nature helps optimize OMT—use slow, sustained pressure to engage fluidity, and rapid thrusts when structural support is needed

fascia isn't fixed, responding to input we give it trauma, input can fix the fascia into a fixed pattern

From Micro to Macro: Fascia as a Body-Wide Web



Dr Guimberteau's Strolling Under the Skin

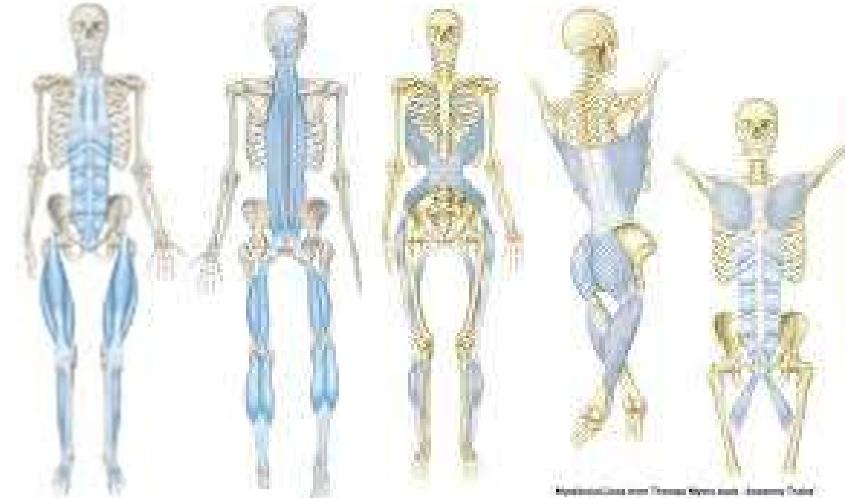
collagen web weaves into structures - sheet like planes but interconnected

Fascial Architecture: Organizing the Body Through Tension & Continuity



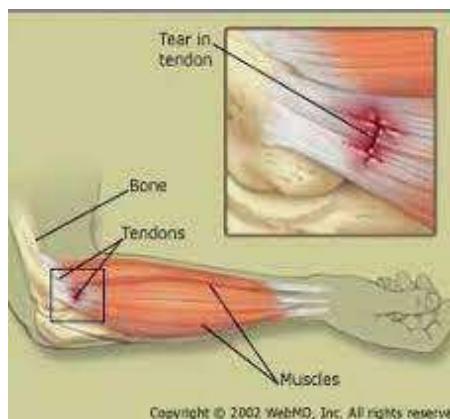
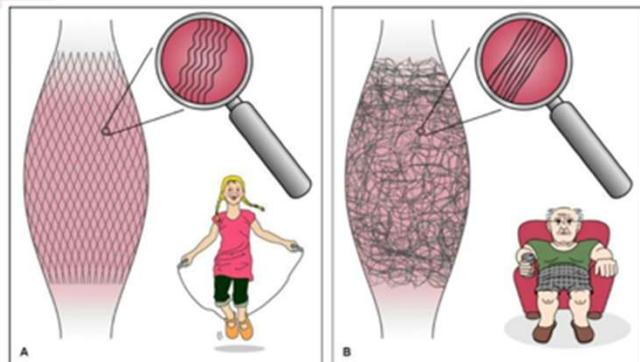
Body Worlds Guatemala

body wide fascial patterns - myofascial meridians
omn works bc treat the whole body as a dynamic structure



Anatomy Trains: Fascia

Fascia Over Time: Aging, Gravity & Pathology



Age-related fibrosis & stiffness

Increased collagen and reduced hyaluronic acid (HA) with age leads to thickened, less elastic fascia — reducing glide and increasing passive stiffness. ([Science Direct](#))

Gravity-induced densification

Prolonged static loading (sitting, standing) compacts fascia, restricting movement. Daily loading helps maintain glide and healthy tissue tension.

Pathological changes from injury & inflammation

Trauma and chronic inflammation cause scar-like fibrosis, reducing fascial adaptability and impairing coordinated movement.

Reduced shear in pain syndromes

Chronic low back pain is linked to ~20% reduced thoracolumbar fascial shear strain, impairing mobility and reinforcing pain cycles. ([Biomed Central](#)).

fascia can stiffen

Fascia: External Influences like Myofascial Release

- Fascia is capable of changes in length (plasticity and elasticity) (O'Connell, 2011; Findley, 2012; Warner, 1997).
 - MFR provides peripheral neuroreflexive alterations in muscle tone and neural facilitation, in part by its influence on mechanoreceptors (O'Connell, 2011; Findley, 2012).
 - The application of MFR allows for connective tissue plastic changes, which are associated with release of energy (hysteresis). This may include heat, electromagnetic, and piezoelectric changes (O'Connell, 2011; Findley, 2012).
 - External forces applied to fascia facilitate restoration of normal structure and function (Findley, 2012).
- Educational Council on Osteopathic Principles. *A Teaching Guide for Osteopathic Manipulative Medicine.* 1st ed. 2018. Page 89.

touch increase hydration
engaging with living adaptive matrix

Myofascial Release (MFR)

Definition:

Myofascial release (MFR) is a system of diagnosis and treatment, first described by A.T. Still, MD, DO, and his early students, that engages continual palpatory feedback to achieve release of myofascial tissues.

A.T. Still, MD, DO, and his early students first described techniques similar to MFR. Principles of direct and indirect soft tissue treatment were organized into a system of diagnosis and treatment termed “myofascial release” by osteopathic physicians Anthony Chila, DO, John Goodridge, DO, John Peckham, DO, and Robert C. Ward, DO.



I know of no part of the body that equals the fascia as a hunting ground. I believe that more rich golden thought will appear to the mind's eye as the study of the fascia is pursued than any division of the body.

- *Philosophy of Osteopathy*
A.T. Still

Myofascial Release (MFR)

Definition:

Direct MFR: the dysfunctional myofascial tissues are loaded, and **restrictive barrier** is engaged with a constant force.

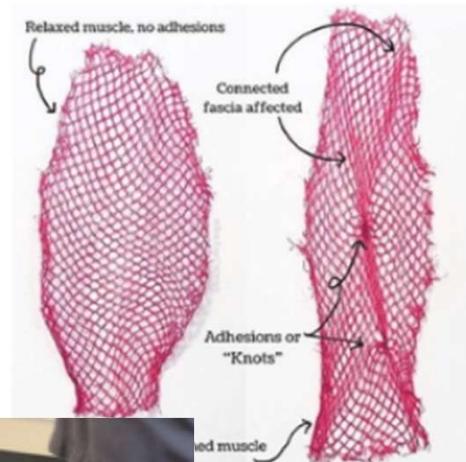
encouraging change in an active way

Indirect MFR: The dysfunctional myofascial tissues are loaded and then guided towards the position of greatest ease.

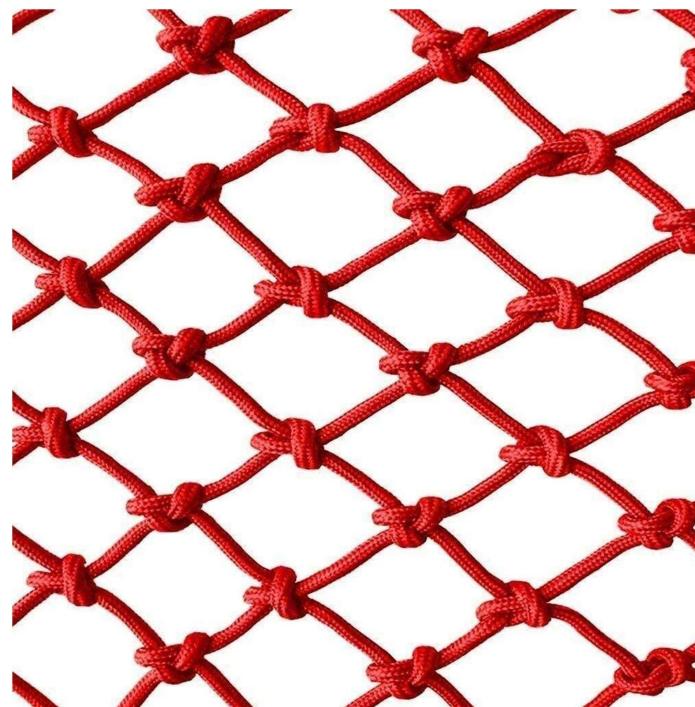
gentler good for acute pain, trauma or sensitivity and unwinds

MFR will be considered as **non-segmental “classic” MFR**.

passively stretches fascia to release



Myofascial restriction



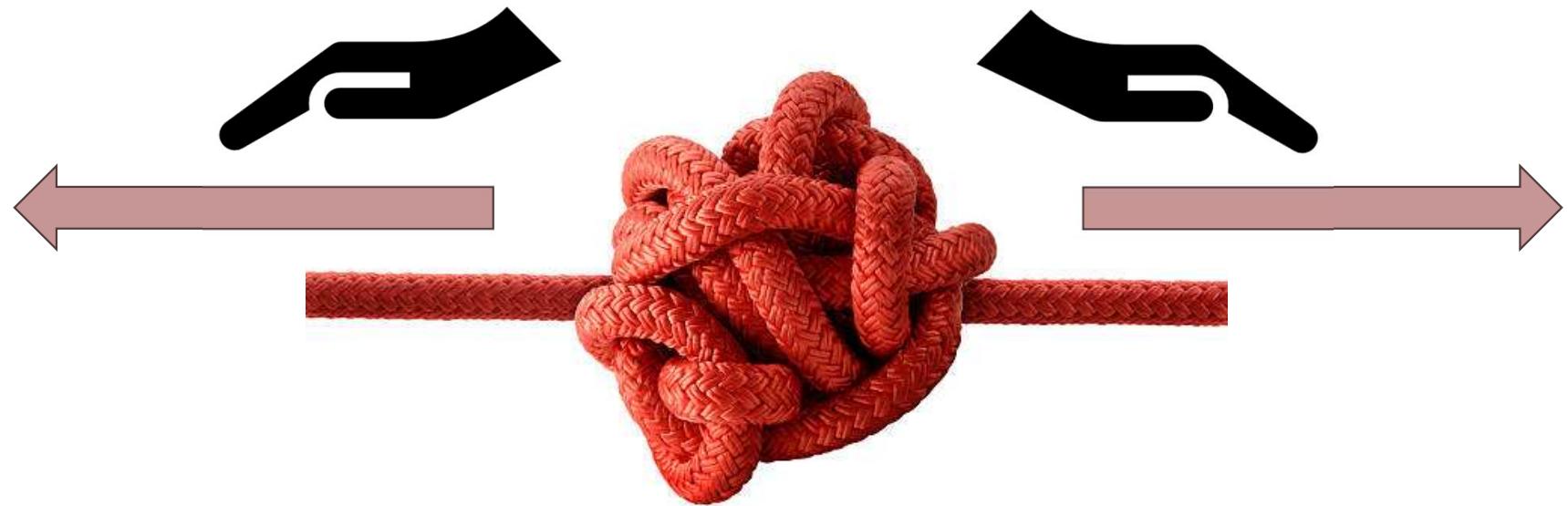
The Functional Lines: myofascial "tracks" and bony 'stations'

Myofascial restriction

disorganized pattern
myofascial restriction = somatic dysfunction
what the body is doing to self-regulate

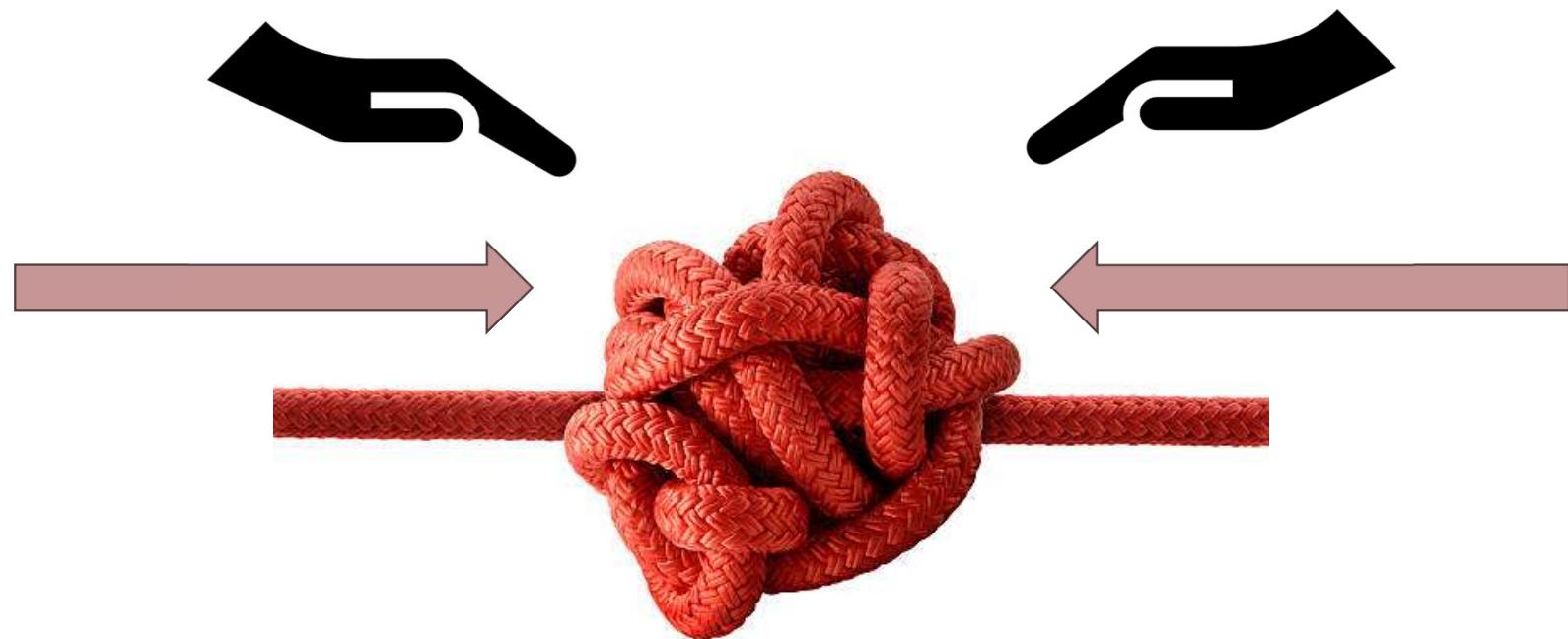


Direct Myofascial Release (MFR)



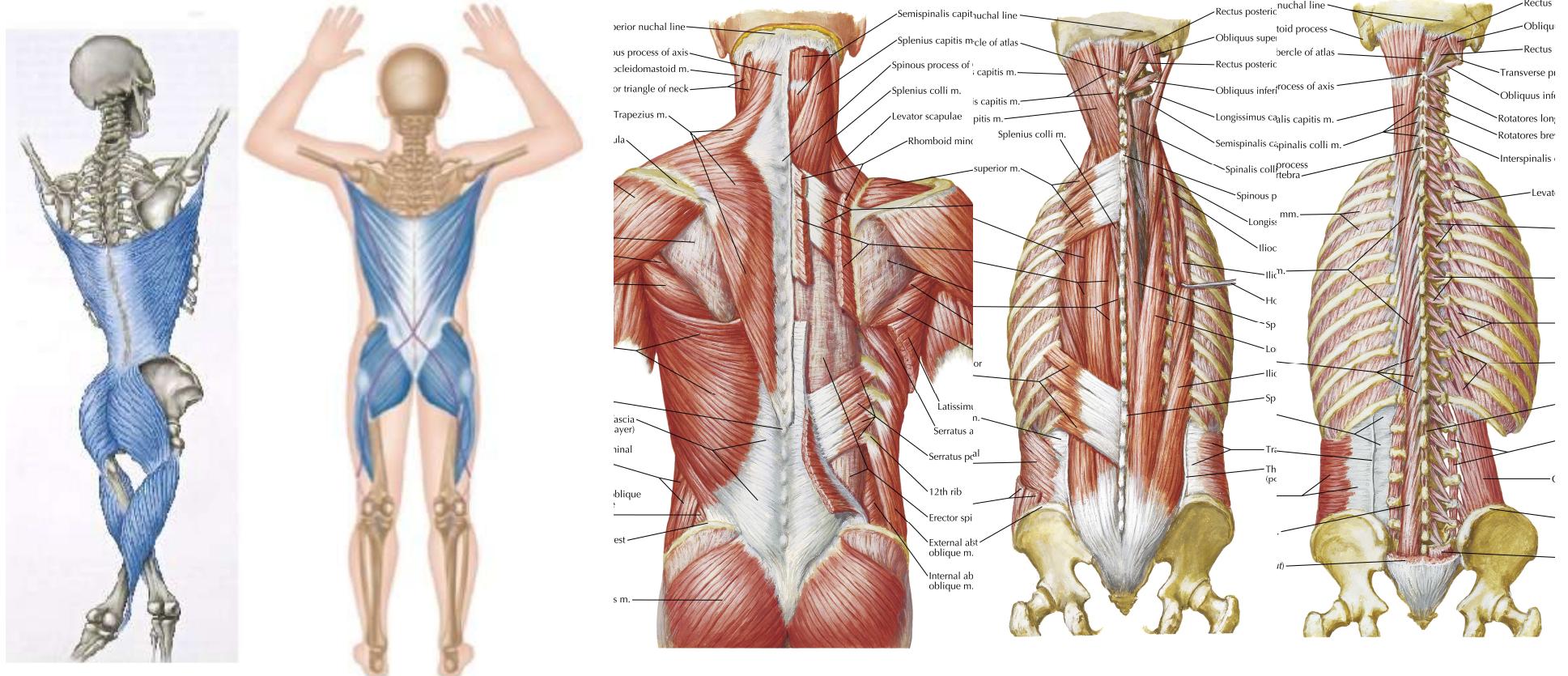
Direct MFR: the dysfunctional myofascial tissues are loaded and restrictive barrier is engaged with a constant force.

Indirect Myofascial Release



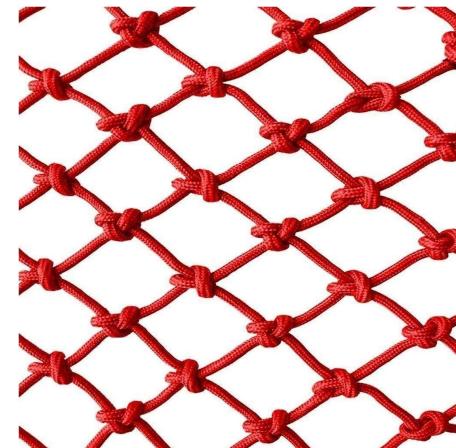
Indirect MFR: The dysfunctional myofascial tissues are loaded and then guided towards the position of greatest ease.

Fascial planes: How to find an ease and barrier



place one or two hands and palpate where things want to go

Fascial planes: How to stack the planes (2D version)

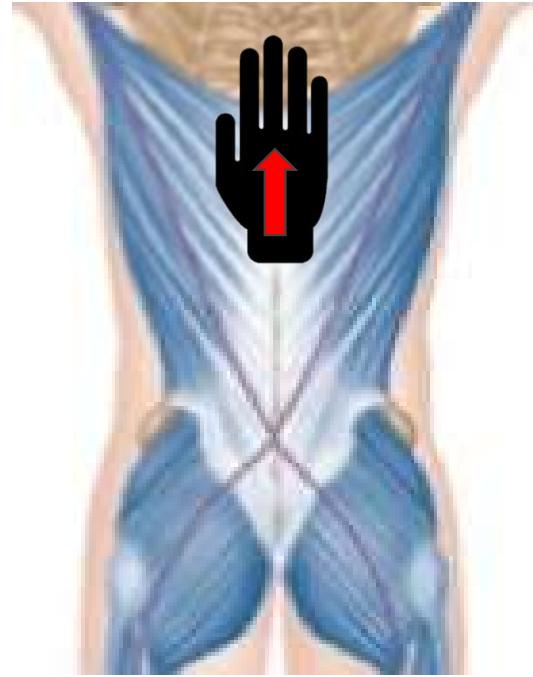


Fascial planes: How to stack the planes (2D version)

ease of movement not how far it will go



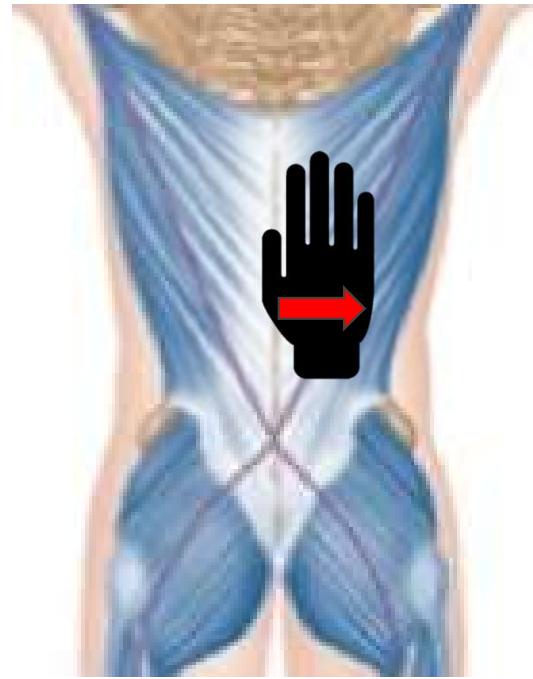
Fascial planes: How to stack the planes (2D version)



Fascial planes: How to stack the planes (2D version)



Fascial planes: How to stack the planes (2D version)



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Fascial planes: How to stack the planes (2D version)



Fascial planes: How to stack the planes (2D version)



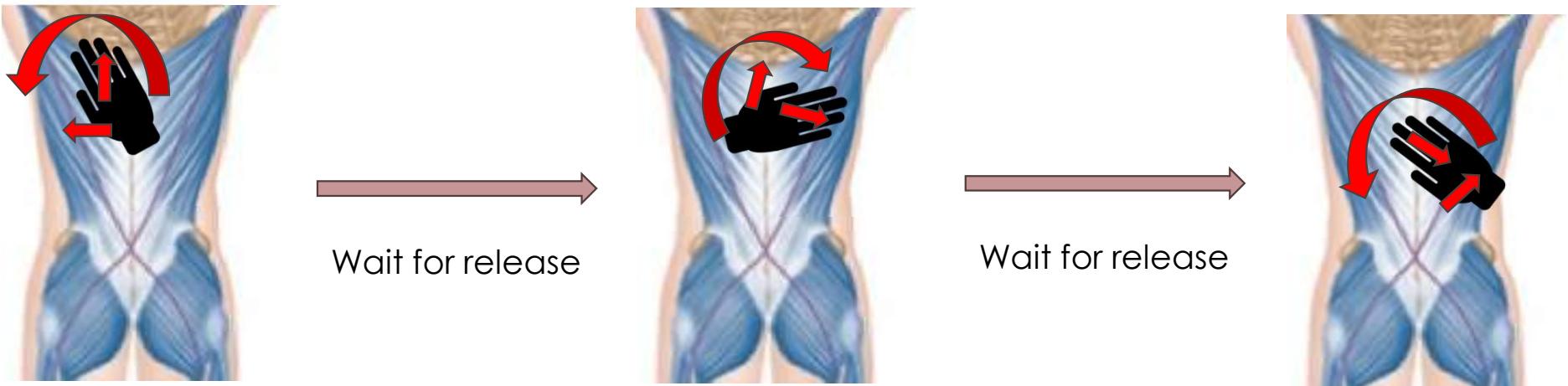
Myofascial release: How to stack the planes (2D version)

- Positioning into the direction of ease/barrier of the SD or traumatic pattern in as many planes of motion are possible
- Apply an activation force (generally inherent force, physician-guided force, and/or respiratory cooperation)
- Hold and monitor tissues until release is expressed. Characteristics of change in the tissues include: warmth, softening, increase in motion, palpation of fluid flow, or improved presence/vitality of primary respiratory mechanism
- Reposition as necessary until normal tissue balance is achieved
- Recheck



helping tissue readapt to physiologic motion

Myofascial Release: How to unwind by continually stacking the planes



feeling the guidance of the ease and barrier

Fascial planes: How to stack the planes with two hands

Indirect MFR:

Movement of a patient by the physician into the position of ease for all planes until desired tissue release or fascial unwinding has occurred.



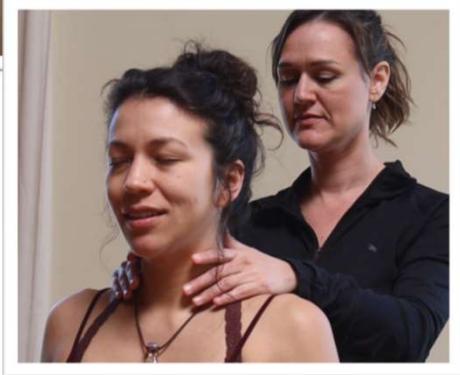
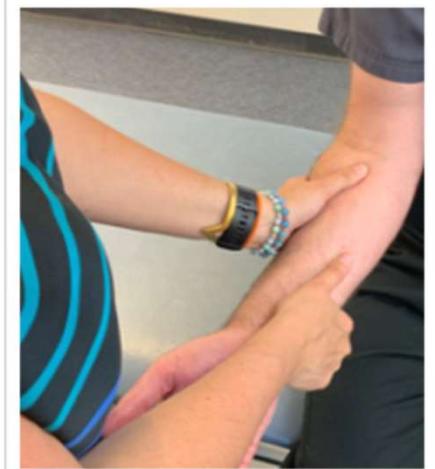
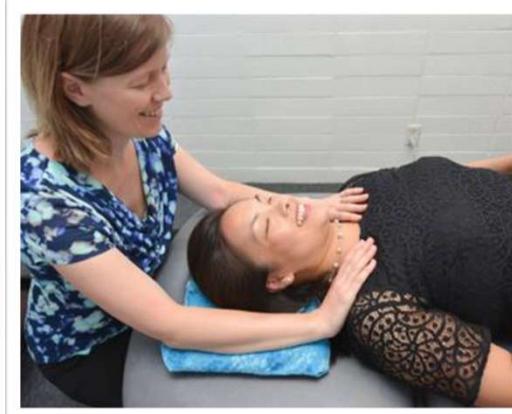
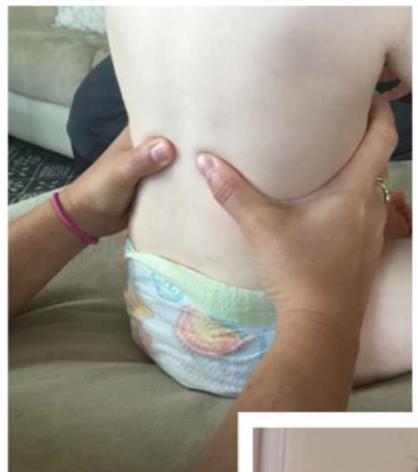
generally short lever MFR because close in vicinity

Direct MFR:

Movement of a patient by the physician into the restriction for all planes, applying steady force until tissue release or fascial unwinding is completed.

can place fingers, hands, forearms on any part of the body

Myofascial release (3D version)



Indications and Contraindications

Indications MFR is used to treat somatic dysfunctions involving myofascial tissues or other connective tissues.

Contraindications

Absolute or relative contraindications include but are not limited to the following:

1. Cautions and relative contraindications for local application in patients with:

- A. Fractures
- B. Open wounds
- C. Soft tissue or bony infections
- D. Abscesses
- E. Deep venous thrombosis (threat of embolism)
- F. Anticoagulation
- G. Disseminated or focal neoplasm
- H. Recent post-operative conditions over the site of proposed treatment (wound dehiscence)
- I. Aortic aneurysm

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