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Fascial Line Mobility

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Introduction
Bring fascial line science to practical experience in this full-body mobility session that will take you through static, active and dynamic mobility sequences that target the fascial lines of the body. Gain understanding and practice fascial line movement patterns to enhance performance, decrease tension and increase flexibility. This session is suited for group fitness and personal training.

Definition

> "The fascial system surrounds, interweaves between, and interpenetrates all organs, muscles, bones, and nerve fibers, endowing the body with a functional structure, and providing an environment that enables all body systems to operate in an integrated manner"
>
> Fascia Research Congress

> "Fascia is the biological fabric that holds us together. It is our connective tissue network, the 3-D spider web of fibrous, gluey, and wet proteins that binds [all of our trillions of cells] together in their proper placement. Understanding fascia is essential to the dance between stability and movement – crucial in high performance, central in recovery from injury and disability, and ever-present in our daily life from our embryological beginnings to the last breath we take."
>
> Tom Myers (author of Anatomy Trains)

Three layers of Fascia
1. Superficial
2. Visceral
3. Deep

Structure of Fascia
Fascial connective tissues basically consist of two components: **cells** and **extracellular matrix**.

Cells: most of the cells are
- **Fibroblasts** – which function as construction and maintenance workers for the surrounding matrix

Extra cellular matrix (ECM): two parts – **ground substance** and **fibers**

- **Ground Substance** (the spaces between everything else) – consists mostly of water, which is bound by proteoglycans (or glycosaminoglycans). ECM is very viscous; its consistency is very much like mucus.

- **Fibers:**
    - **Collagen** – strong and most abundant fibers that give fascia the property of plasticity
    - **Elastin** – provides fascia with elasticity
    - **Reticular fibers** – hold and connect vessels and nerves within the fascia.

Qualities of Fascia

1. **Viscoelastic Properties**

   Fascia helps **prevent or minimize localized stress** in a particular muscle, joint or bone, and it helps harness momentum created from the operating forces mainly through its viscoelastic properties. This **protects the integrity of the body** while minimizing the amount of fuel used during movement.

2. **Force Transmitter**

   Fascia mitigates stress and force through the body depending on the direction and application of force (Myers 2001; Huijing 2003; Sandercock & Maas 2009).

3. **Mechanoreceptors**

   Numerous mechanoreceptors (Golgi tendon organs, Ruffini endings, Paciniform endings) have also been identified within the fascial matrix; these may be **contributing to the smooth-muscle-like contractions and communicating with the central nervous system** regarding the amount of shear forces within the connective tissue (Myers 2011).

4. **Tensegrity**

   Fascia is always under tension as long as gravity is present. This passive pre-tension has been called **human resting myofascial tone.**

5. **Communication**

   Fascia can instantly and simultaneously communicate essential information necessary for survival and daily function to all the cells of the body. This is facilitated ad maintained for optimal health and performance through movement. (Stretch to Win, Ann and Chris Fredrick 2017)

Keys to Fascia Resilience. How do we keep fascia healthy?

1. Movement, movement, movement!!!

2. Soft tissue work / Body Work (manual therapy, such as Rolfing, massage, etc.)
3. Self-Myofascial Release (including compression and de-compression techniques)
4. Different styles of yoga and/or stretching techniques
5. Flow Yoga
6. Bouncy moves
7. Strength and stability exercises

Anatomy Trains – The Fascial Lines – (Thomas Myers)

Muscles operate in an integrated framework within the fascial webbing that form traceable "meridians or lines" of fascia that distribute strain, tension, fixation and compensations

Understanding the patterns of myofascial meridians helps to restore function of the fascia and build a platform for performance

The fascial lines give musculoskeletal anatomy a 3D feel and describes how movement and force are distributed within the body as a unit

Fascial Line Flexibility

Encourage multidirectional movement in all planes of motions

Superficial Front line:

Superficial Back line:

Lateral line:

Spiral line:

Deep Frontal line:

Arm lines:

Fascial Line Mobility Flow
Practical

Standing
Squat floor touch with back extension
Squat floor touch with back extension with transverse rotation
Standing cross behind lateral line stretch to lateral lunge with side bend to cross over curtsey with oppositional rotation
Cross front with internal hip rotation with single arm overhead, step back to transverse lunge with alternate overhead reach

Kneeling
Child's pose with hip rocks with spine stretch, lateral arm reaches
Cat and cow add lateral bends and hip shifts
Kneeling single arm rotation to thread the needle
Kneeling hip extension with single arm circle
Dynamic downward facing dog (crouch and extend)
Downward facing dog with a twist to T stand to hip and spine extension
Downward facing dog to low lunge to dynamic hip rock
Low lunge with dynamic twist

Seated
Roll up with anterior arm reach
½ straddle with lateral stretch to opposite side lateral extension
Single leg lateral hip stretches with dynamic forward bend with ½ roll up in ½ clock
Forward bend to single leg reverse plank

Supine
Ankle plantar and dorsi flexion
Alternate bent knee, add abduction and adduction
Knee hug to front roll
Side lying upper body and arm circle
Side lying cat catching its tail
Supine bent knee spine rotation
Full body knee tuck and extend
The X factor

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