“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
MYOFASCIAL RELEASE
Objectives

• Review basic anatomy.
• Describe diagnosis of somatic dysfunction using a fascial model.
• Summarize the basic concepts of myofascial release (MFR) as a treatment method.
• Demonstrate how to treat somatic dysfunction using MFR.
• Describe when to use these treatment methods by providing Clinical Scenarios as examples of patients who might benefit from this approach.
4 Tenets of Osteopathy

• The body is a unit; the person is a unit of body, mind, and spirit.
• The body is capable of self-regulation, self-healing, and health maintenance.
• Structure and function are reciprocally interrelated.
• Rational treatment is based upon an understanding of the basic principles of body unity, self-regulation, and the interrelationship of structure and function.
Somatic Dysfunction

- Is defined as the impaired or altered function of related components of the somatic (bodywork) system including: the skeletal, arthrodial, and myofascial structures, and their related vascular, lymphatic, and neural elements.
Myofascial Release

• First described by AT Still.
• Utilizes continual palpatory feedback to achieve release of myofascial tissues.
• Can be indirect or direct or both at the same time.

(O’Connell - pg 698)

Francis Feidler DO. Household Osteopath. 1906
Diagnosis Fascial Preference

Diagnosis fascial preference in three planes.

Flexion/Extension

Y

Sidebending

Z

Rotation

X

https://acewebcontent.azureedge.net/blogs/opengraphimages/blog-examprep-070715.jpg
The Right Brain

• “The determination of appropriateness of treatment is not a conscious or left brain function, but rather is transmitted entirely in a right brain manner through the sensation of touch. When the therapist responds to the proprioceptive feedback from the patient, the therapist will find that the direction of stretch, the amount of force, and the duration of the stretch is quite different from when the therapist was using any other technique of stretching.” (Manheim pg 1)
Range of Motion (ROM)

AB – Anatomic Barrier – End of passive range of motion.

PB – Physiological Barrier – End of active range of motion.

Neutral – Midpoint position at which tissue tension is equally balanced between two ends of ROM.
Range of Motion

RB - Restrictive Barrier – End of active range of motion due anatomic or somatic dysfunction.

Shifted Neutral – Shifted midpoint of balance tissue tension away from RB.
After determining the direction of myofascial tension, hold the tissues firmly against soft tissue resistance.

REDUCED ACTIVE ROM

Hold Tissues here
Indirect MFR

After determining the direction of myofascial tension, **exaggerate** the position of ease.
Myofascial Release

1. Position tissues as appropriate barrier(s).
2. Maintain firm, but gentle pressure. The tissues will then begin to creep due to viscoelastic properties.
3. Follow the tissues as they move to maintain pressure at the direct or indirect motion barrier.
4. May take 15-120 seconds of stretch.
5. Continually reassess the balance position until release is felt or balanced motion is obtained.
6. **Release may occur as a sudden give/relaxation in the tissue tension or the motion stops.**
7. Reassess to determine efficacy.
8. Repeat as needed to affect different tissue layers.
Anatomy of the Neck

Fascia and Musculature

Vertebra in the Cervical region
Indirect Myofascial Release of the Cervical Vertebra

1. Place your fingers posterior to the transverse processes and check tissue motion in all three planes (be sure to check compression).
2. Position the vertebra at the **indirect** motion barrier.
3. Allow a myofascial unwinding to occur by constantly reassessing the position of ease and maintaining the tissues at the indirect motion barrier.
Indirect Myofascial Release of the Cervical Vertebra
Connective Tissue Properties

• Connective tissue and muscle comprise 80% of the tissues of the body.
• Connective tissues are viscoelastic material with properties of both viscous (fluid) materials and elastic materials.
• When connective tissue is placed under a load the fibers will stretch until they reach the anatomic barrier.
Connective Tissue Properties

Connective tissue is composed of both elastic and collagen fibers.

Collagen fibers are as strong as steel of the same diameter, but is ten times more elastic, thus demonstrate viscoelastic properties.
Connective Tissue Properties

I – Elastic fibers
II – Elastic fibers with collagen recruitment
III – All of collagen and elastic fibers being stretched.
Connective Tissue Properties

Relaxation – When connective tissue is stretched to a fixed length, overtime the force required to hold it decreases.

The tissue relaxes until it reaches its elastic limit.

Friedman pg 4
Connective Tissue Properties

**Creep** – Viscous property. The lengthening of the connective tissue over time under a constant force until the elastic limit is reached.

![Image of creep](image)

![Graph](graph)

Friedman pg 4
Ankle Anatomy

Tendon Sheaths of Ankle
Lateral View

Superoextensor retinaculum
Sheath of tibialis anterior tendon
Lateral malleolus and subcutaneous bursa
Inferior extensor retinaculum
Sheath of extensor digitorum longus and peroneus tertius tendons
Sheath of extensor hallucis longus tendon
Extensor digitorum brevis muscle
Abductor digiti minimi muscle
Peroneus longus tendon
Peroneus brevis tendon
Calcaneus
Abductor digiti minimi muscle
Peroneus longus tendon
Tubercity of 5th metatarsal bone
Soleus muscle
Peroneus longus muscle
Peroneus brevis muscle
Calcanal (Achilles) tendon
Common sheath of peroneus longus and brevis subcutaneous calcaneal bursa
Sulcetinuous calcaneal bursa
Superior peroneal retinaculum
Inferior peroneal retinaculum
Calcaneus
Exterior digitorum longus muscle
Superior extensor retinaculum
Indirect Myofascial Release of the Ankle

1. Grasp the talocalcaneal area with one hand and grasp the distal leg with the other.
2. Evaluate the range of motion at the ankle joint in all three planes and position at the indirect motion barriers.
3. Allow a myofascial unwinding to occur by constantly reassessing the position of ease and maintaining the tissues at the indirect motion barrier.
4. Reassess.

Clinical Application: ankle pain, acute and chronic ankle sprains, osteoarthritis of the ankle, Post-Surgical
Foot Anatomy
1. Evaluate the foot for restrictions of motion at the various joints.
2. Place one hand proximal to the restriction and one hand distal to restriction.
3. Evaluate the range of motion at the joint in all three planes and position at the direct motion barrier.
4. Allow a myofascial unwinding to occur by constantly reassessing the position of ease and maintaining the tissues at the direct motion barrier.

Alternately,
Unwind the entire foot by placing one hand over tarsal metatarsal joints and the other hand under the calcaneus. Position at the direct motion barrier and allow an unwinding to occur.

Clinical Application: foot pain, pes planus, plantar fasciitis, osteoarthritis of the foot, Post-Surgical
Summary

• Indirect myofascial release starts at physiological barrier opposite the direct barrier – indirect barrier.
• Direct myofascial release starts at direct pathophysiological barrier – direct barrier.
• Constantly reassess and hold tissue at barrier to allow fascial unwinding (creep) to occur.
• Recheck when motion stops.

• Questions?
References

