

# **Five Essential Techniques for Treating the Fascial System with MFR**



**Presented by:  
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## **Five Essential Techniques for Treating the Fascial System with MFR**

### **Course Description:**

Five Essential Techniques for Treating the Fascial System with MFR:

Treating the fascial system may appear complicated at first glance as there are a multitude of techniques and approaches to address our complex human body.

This hands-on workshop focuses on the principles and practice of 5 primary MFR techniques which can be applied and used to treat fascial restrictions throughout the body

### **Course Schedule:**

Day 1:

9:00 – 10:30: Introductions and Physical Assessment

- Postural Assessment
- Evaluation tips and tricks
- Documenting tips and tricks
- Full evaluation of partner

10:30 – 10:45: Break

10:45 – 11:15: Evaluation of Fascial Tissue and Cross Hand Releases

- 4-Way Tissue Assessment
- Skin Rolling
- Fascial Snap

11:15-12:00: Cross Hand Release “Hands-On” Lab in Prone:

- Lumbosacral- page 14
- Paraspinals- page 14
- Latissimus Dorsi – page 15

12:00 – 1:00: Lunch Break

1:00 – 1:30: Cross Hand Release “Hands-On” Lab in Prone Continued:

- Ischial Tuberosity to calcaneus- page 15
- Medial Scapular borders- page 16

1:30-2:00 Cross Hand Release “Hands-On” Lab in Side lying:

- Lateral Trunk- page 16
- ITB- page 17

2:00-2:30 Cross Hand Release “Hands-On” Lab in Supine:

- Lateral Neck- page 17

2:30 – 2:45 Break

2:45 – 3:30 Cross Hand Release “Hands-On” Lab in Supine:

- Pectoral- page 18
- ASIS to anterior thigh- page 19
- ASIS to anterior ankle- page 19

3:30– 4:45: Myofascial Release “Hands-On” Lab Arm and Leg Pulls

- Supine Arm Pull- page 20
- Side lying Arm Pull- pages 21,22
- Supine Leg Pull- page 23
- Prone leg Pull- page 24

4:45 – 5:00: Review and Q/A

Day 2:

9:00 – 9:30: Explanation of Myofascial Mobilization /Transverse Plane Releases/ Scar Releases and Principles behind each.

9:30 – 10:30: Myofascial Mobilization “Hands-On” Lab:

- Psoas Release- page 25
- Subscapularis Release- page 25
- Quadratus Lumborum Technique- page 26
- Piriformis Release- page 26

10:30 – 10:45: Break

10:45 – 11:15: Myofascial Mobilization “Hands-On” Lab:

- Levator Scapulae- page 27
- Gluts- page 27

11:15-12:00 Explanation of Transverse Fascial Planes. Discussion of indications/common symptoms or diagnoses related to dysfunction at each Transverse Plane. Begin Transverse Plane “Hands-On” Lab:

- Pelvic Floor Release- page 28
- Respiratory Diaphragm Release- page 29

12:00 – 1:00: Lunch Break

1:00 – 2:30

- Thoracic Inlet Release- page 29
- Suboccipital/OA Release- page 31
- Transverse Plane Releases for Joints- page 32
- Transverse Plane Releases for Scars- page 32

2:30 – 2:45: Break

2:45 – 4:30: Scar Release “Hands-On” Lab

- Evaluation of scar
- Scar Release with Cross Hand Principle- page 33
- Scar Release with Myofascial Mobilization Principle- page 34

4:30 – 5:00: Review and Q/A

## **Course Learning Objectives/Outcomes:**

**Learning Objectives:** Five Essential Techniques for Treating the Fascial System with MFR is a 14-hour introduction to the anatomy and physiology of connective tissue, as well as an introduction to the principles and practice of myofascial release.

The following topics are covered within the context of this introduction:

- The basic anatomy and physiology of the fascial system.
- The importance of the fascial system and its relationship to other physiological systems in the body.
- Beginning level evaluation techniques and palpation of anatomical landmarks to establish postural asymmetries and connective tissue integrity.
- Differentiation between soft tissue mobilization and myofascial release techniques.
- Practical application and practice of beginning level myofascial release techniques.
- Discussion on how to integrate treatment of the fascial system with traditional physical therapy and massage techniques.

**Learning Outcomes:** At the close of this class the student will have an introductory level proficiency of the following:

- The student will understand basic anatomy and physiology of the fascial system.
- The student will be able to identify the importance of the fascial system with at least three other physiological systems.
- The student will be able to evaluate the bony landmarks of the pelvis and shoulder girdle and identify postural asymmetries.
- The student will be able to assess connective tissue mobility and integrity.
- The student will be able to formulate a treatment plan based on evaluation findings.
- The student will be able to perform a combination of beginning level myofascial release techniques based on their treatment plan.
- The student will be able to identify scar tissue and use three techniques to treat the scar tissue.
- The student will exhibit beginner level proficiency with cross hand releases on at least 5 body parts.
- The student will exhibit beginner level proficiency with transverse plane releases on at least 5 body parts.
- The student will exhibit beginner level proficiency with myofascial mobilizations on at least 5 body parts.
- The student will exhibit beginner level proficiency with arm pulls in two positions.
- The student will exhibit beginner level proficiency with leg pulls in two positions.
- The student will understand basic indications and contraindications for using MFR.

- The student will understand resources available to obtain updates on fascial research.

## What is Connective Tissue or Fascia?

Connective tissue is made up of two proteins, collagen and elastin, and a polysaccharide gel complex called the ground substance.

Collagen fibers contribute to the strength of fascial tissue and guard against overextension. This is because it has three polypeptide chains that line up to form fibrils so that there are no weak points that would give under strain.

Elastin is rubber-like in nature. It provides elasticity to tissue and absorbs tensile forces.

The ground substance is made up of hyaluronic acid and proteoglycans. The hyaluronic acid is highly viscous and lubricates the collagen, elastin, and muscle fibers so that they slide easily over one another with minimal friction. The proteoglycans are peptide chains that form the gel of the ground substance. This gel is extremely hydrophilic and allows the tissue to absorb compressive forces of movement throughout the body. <sup>1</sup>

At the cellular level, fascia looks like a small, straight, elastic tissue (elastin) intertwined with a relaxed, wavy configuration of collagen. This creates a three-dimensional web of tissue with ground substance embedded within it. <sup>2</sup>

## Anatomy and Physiology of Fascia

Fascia is a tough connective tissue, which can be broken down into three layers:

1. The Superficial Fascia which lies directly below the skin.
2. The Deep Fascia which surrounds and infuses with every muscle, bone, blood vessel, nerve, and organ all the way down to the cellular level.
3. The Deepest Fascia which is within the dura of the cranial sacral system.

Fascia is a three-dimensional web of connective tissue that spreads throughout the body without interruption from head to toe.

It is primarily vertical in orientation but it has dense, transverse planes of fascia for added support at the pelvic floor, respiratory diaphragm, thoracic inlet, cranial base, and at each joint.

Fascia surrounds and infuses every cell of the body. That means that fascia surrounds **every cell** of **every** muscle, bone, blood vessel, nerve, and organ.

For that reason, fascia creates interstitial space at the cellular level and has extremely important functions in cellular respiration, elimination, fluid and lymphatic flow, and metabolism as well as cellular communication. Fascia is also home of the phagocyte, which has an important influence on the immune system. <sup>3</sup>

Furthermore, it is the fascial system that supports, protects, separates, and provides shock absorption for the body.

In effect, fascia creates the immediate environment of every cell in the body. <sup>4</sup>

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<sup>1</sup> Barnes, JF, Myofascial Release – The Search for Excellence. JF Barnes and Rehabilitation Services, 1990.

<sup>2</sup> “

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<sup>3</sup> Barnes, JF The Elasto-Collagenous Complex. Physical Therapy Forum, April 25, 1988.

<sup>4</sup> Barnes, JF Five Years of Myofascial Release. Physical Therapy Forum. September 16, 1987.

## Myofascial Restrictions

Myofascial restrictions can occur through trauma, inflammatory processes, scarring (including surgery,) or through poor or prolonged posture.

Dr. Viola Fryman studied thousands of newborn infants and found that 90% of the infants studied had distortions in their cranium and/or pelvis. Left uncorrected, such torsions can easily create asymmetries and imbalances as the child develops.

In a study quoted in John Barnes' article *The Elasto-Collagenous Complex* it states that a small slit in the epimysium of the fascia resulted in a 15 % reduction in muscle strength and a 50% decrease in intracompartmental pressure during muscle contraction.

Studies have shown that a fascial restriction can have a tensile strength of 2,000 pounds per square inch.<sup>5</sup>

When fascia is inflamed it shrinks. It is slow to heal because of poor blood supply and it is a focus of pain because of its rich nerve supply.

The ground substance of fascia is naturally very hydrophilic and gelatinous in nature. This allows for absorption of compressive forces during movement or trauma.

When fascia becomes restricted the ground substance changes in viscosity and becomes hardened. Hardening of the ground substance is the equivalent of adding cement to the interstitial spaces.<sup>6</sup> It "binds down" the tissue, decreasing fluidity of movement and the ability of the tissue to "forgive" compressive forces and elongation.

Because fascia is a continuous sheath of connective tissue that runs throughout the entire body, a fascial restriction in any one part of the body can create symptoms in any other part of the body.

This can become confusing because pain and symptoms often appear bizarre and do not follow dermatomal patterns. To further frustrate medical professionals, fascial restrictions can not be seen in blood tests, x-rays, MRI's, etc., and therefore are difficult to diagnose through traditional screening methods.

When fascia becomes restricted it solidifies and shortens creating enormous tensile strengths on pain sensitive tissue such as nerves and blood vessels.

Fascia functions to create space. When it is restricted there is less space and therefore entrapment of nerves, blood vessels, organs, lymphatics, or muscles can take place.

Fascia functions as a spacer between joints and creates space for our skeletal system.

When fascial restrictions occur, they create abnormal strain patterns that can pull osseous structures out of proper alignment or too close together. This can result in compression of joint surfaces, discs, bursae, etc. again creating asymmetry and inflammation.

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<sup>5</sup> Barnes, JF. *Myofascial Release – The Search for Excellence*. JF Barnes and Rehabilitation Services, 1990.

<sup>6</sup> “

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## Myofascial Release Techniques

The myofascial release technique is a gentle, hands-on technique that facilitates a sustained stretch into restricted soft tissue. This restores length and health to the myofascial tissues and takes pressure off of pain-sensitive tissues like nerves and blood vessels.

This ultimately restores alignment and mobility of joints, muscles, and soft tissue, thereby reducing pain and restoring functional movement.

Myofascial release is performed by first finding fascial restrictions through evaluation of the fascial system, postural symmetry, and soft tissue mobility, and then by applying gentle pressure into the fascial restriction.

As described by Barnes in his textbook *Myofascial Release – the Search for Excellence*-, applying gentle pressure into the elastocollagenous complex initially engages the elastic portion of the complex and the endfeel is “springy.” The elastic component is gradually stretched until the hands stop at a firm barrier, which is the collagenous portion of the complex. This component is very strong and can not be forced. Instead, gentle, sustained pressure will release this.

The mechanism by which this occurs is a result of viscous flow phenomenon. A low load or gentle pressure applied slowly allows a viscous medium to flow greater than a high load or quick pressure would. The viscosity of the ground substance has an effect on the collagen whereby it controls the ease with which collagen rearranges itself. As the collagen fibers rearrange themselves, the collagenous barrier releases and a change in the tissue length occurs.

Furthermore, it is theorized that the ground substance changes it’s viscosity during a release from a solid, restricted state back to it’s proper viscosity through the properties of applying mechanical, thermal, and bioelectric energy to the colloidal properties of the ground substance.<sup>7</sup> This theory is based on a physics principle stating that colloid changes from a solid to a gel when mechanical, thermal, and bioelectric energy is applied.

In addition to creating a low load, the element of time is very important. Fascia needs time to release in order for the release to last. A minimum of 90-120 seconds is required for a release to take place, and an average of 3-5 minutes is the minimum necessary to engage fascia at a number of barriers.

It is the therapist’s goal to follow this tissue as it releases. Stopping at each barrier and maintaining gentle pressure as the collagen rearranges itself and tissue length improves. Following the release as it occurs until the next barrier is found.

To reiterate, key factors in the Myofascial Release technique include a **low load**, or **gentle pressure** into restricted tissue for a **minimum of 90-120 seconds**, with the intent to **follow rather than lead** as the tissue releases. **This means that getting more proficient at myofascial release does not mean getting quicker!**

\* Contraindications are listed in the index.

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<sup>7</sup> Barnes, JF. *Myofascial Release – The Search for Excellence*. JF Barnes and Rehabilitation Services, 1990.

Below is a description of some Myofascial release techniques and/or techniques that are often used with myofascial principles. For the purpose of learning, these have been broken down into several categories.

### **Cross Hand Releases**

Cross hand releases have coined their name because the therapist's hand position is crossed. After evaluating the fascial system and determining the presence and direction of a fascial restriction, the therapist places one hand into the direction of the fascial restriction and the other hand directly opposite with counterpressure in the opposite direction of the restriction.

The therapist will initially engage the elastic portion of the elastocollagenous complex. Gentle pressure ensues until the therapist meets the collagenous barrier of the restriction. The therapist then waits and holds until a release takes place. The therapist **follows** that release until the next collagenous barrier is met.

This process continues with the therapist following each release as it takes place and then waits at each new barrier with gentle pressure. The therapist "picks up the slack in the tissue" by applying gentle pressure between the two hands until the collagenous barrier is met.

Key elements include the element of time (i.e. each release is held for a **minimum** of 90-120 seconds,) and the importance of following the release rather than pushing through it. (Remember that collagen is very strong and it can't be bullied!)

This is one of the "true" myofascial release techniques. It utilizes **gentle pressure, sustained** for a **minimum of 90-120 seconds**, and it **follows** the release.

It is also a great "work horse" of a technique because it can be used anywhere in the body for any type of fascial restriction.

### **Transverse Plane Releases**

Fascia is oriented primarily vertically from head to toe with transverse planes of fascia at the cranial base, thoracic outlet, respiratory diaphragm, pelvic floor, and at each joint.

Transverse plane releases are performed by placing one hand on the anterior surface of the body at the transverse fascial plane, and the other hand on the posterior surface of the body directly under the top hand.

The bottom hand acts as a firm supportive foundation and the top hand "picks up the slack" in the tissue and again follows the release three dimensionally from barrier to barrier.

Key elements include engaging the tissue at the collagenous barrier, waiting for a release, following the release, and maintaining gentle pressure over a time period (minimum of 90-120 seconds.)

This is another "true" myofascial release technique as gentle pressure is applied over time and the release is followed rather than directed.

## **Soft Tissue Mobilization**

These techniques treat the elastic component of the fascial system and are not “true” myofascial release techniques as the therapist determines and directs the direction and force of the technique.

These techniques are the least gentle and most superficial techniques. They are designed to break up superficial cross-links in the fascia and are used when thick cross-links prevent underlying fascia from being released. (Cross- links are often formed at the nodal points where fascia is designed to glide over itself.)

Examples of soft tissue mobilizations include J-stroking, strumming, vertical stroking, and the bear claw technique.

Key elements in this technique include greater force and a therapist directed beginning and end point. (I.e. the therapist is leading the release not following.)

There is no time element used.

## **Myofascial mobilization**

These techniques are similar to soft tissue mobilizations but the element of time is added.

The therapist may begin the technique as a soft tissue mobilization but stops at major barriers and maintains pressure until a release occurs. The tissue is then followed three dimensionally as it releases.

Counterpressure with a second hand is generally not used and the therapist determines the beginning and ending points of the release.

While this is not a “pure” myofascial release technique it uses the benefits of soft tissue mobilization and increases the effectiveness and depth of release by adding myofascial principles.

## **Myofascial Unwinding**

Myofascial unwinding is difficult to describe as it involves a complexity of bodily functions and spans the realm of both physical and emotional holding patterns.

In John Barnes’ book *Myofascial Release – The Search for Excellence*, he states “Myofascial unwinding is the release of physical or emotional blocks to our well-being through enlightened movement.”

Myofascial unwinding is “essentially a sophisticated movement therapy. Unlike other movement therapies that suggest or guide the patient’s movement, the therapist eliminates gravity and allows the patient’s natural body movements to take over until the appropriate release occurs.”

The process of unwinding is like watching a knotted rope uncoil. Because the fascial system is three dimensional, it makes sense that as it releases it does so in a three-dimensional pattern. When gravity is eliminated and the patient feels safe enough to “take their brakes off,” their body “unwinds” and stops in significant positions, which reproduce previous positions of physical or emotional trauma.

These stops in motion are called still points. During a still point the cranial sacral rhythm shuts down and reorganization occurs. Memories or emotions may surface and holding patterns in the myofascial structures release.

It is believed that emotional or physical holding patterns occur when the body perceives trauma. It is the body's way of "walling off" the area of trauma to protect the rest of the body. Similarly, it also helps the body to recognize similar assaults in the future and remember how it protected itself last time.

While holding patterns help us "survive" our physical or emotional traumas, their persistent presence can be an obstacle to healing when they are no longer needed. Myofascial unwinding is an excellent tool to engage the mind-body complex in order to enhance recovery.<sup>8 9 10</sup>

### **Craniosacral Therapy**

As mentioned previously, the deepest layer of fascia is within the dura of the cranial sacral system. Therefore, an important part of treating the fascial body as a whole is to engage the deepest level of the fascial system at the dural level.

Craniosacral therapy is a technique that is used to locate abnormal patterns of pulsatile activity in the dura mater membrane and gently facilitate the body's self-correcting mechanism to restore mobility and decrease tension in the system.

Furthermore, the dural attachments at the cranium, posterior surface of the upper cervical vertebrae, and at the second sacral segment can be used as bony levers to engage deep fascial restrictions in the dura which create abnormal pressures or asymmetries in the cranium and/or throughout the dural sleeves.

The craniosacral system is a semi-closed hydraulic system contained within a tough waterproof membrane (the Dura Mater) which envelops the brain and spinal cord. An important function of this system is the production, circulation, and reabsorption of the Cerebrospinal fluid. This fluid is produced within the craniosacral system and maintains the physiological environment in which your brain and nervous system develops, lives, and functions.

The process of production and reabsorption of cerebrospinal fluid creates an independent pulse, which cycles about 10 times per minute.<sup>11</sup>

The goal of craniosacral therapy is to facilitate a self-correcting mechanism for appropriate craniosacral rhythm rate and quality, and to release fascial restrictions in the dura and cranium.

### **Integration of additional modalities**

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<sup>8</sup> Barnes, JF. Flight/Fight/Freeze. PT/OT Today. Vol.6, No. 8. Mind and Body.

<sup>9</sup> Levin, P. Waking the Tiger Healing Trauma. North Atlantic Books. 1997.

<sup>10</sup> Barnes, JF. Myofascial Release – The Search for Excellence. JF Barnes and Rehabilitation Services, 1990.

<sup>11</sup> Upledger and Vredevoogd. Craniosacral Therapy. Eastland Press, 11<sup>th</sup> Printing, 1992.

### **Assessing Tissue Mobility and Symmetry:**

Place a hand where you think a restriction may be and test the tissue mobility in each direction.

You begin by allowing your hand to sink into the tissue and then exert slight pressure to “pick up the slack” in the tissue. Feel the end range in each direction (i.e. North, South, East, and West)

#### **Normal tissue has an elastic endfeel.**

This means that after you have “picked up the slack” in the tissue, normal tissue has a slight “give” to it.

If you feel your hand come to a dead stop in the end range or if you feel a resistance to movement, that indicates a fascial restriction.

#### **Normal tissue is never hard, hot, or painful.**

If you touch an area that is hot, hard, or painful, you can assume that this is an area of restriction!

#### **Ongoing Assessment:**

As you begin treating your patient it is important to continually “check in” on the feel of their tissue and assess the changes in their posture and movement. This will allow you to assess their progress and determine “where to go next” in their treatment program.

### **Cross Hand Techniques:**

Cross hand techniques were previously described in this manual. Here are a few examples of cross-hand applications:

### **Lumbosacral Technique:**

Cross Hand Technique with one hand directly on the sacrum and the other hand just above the L/S Junction:



### **Paraspinal Technique:**

Cross Hand Technique directly over the paraspinal muscles



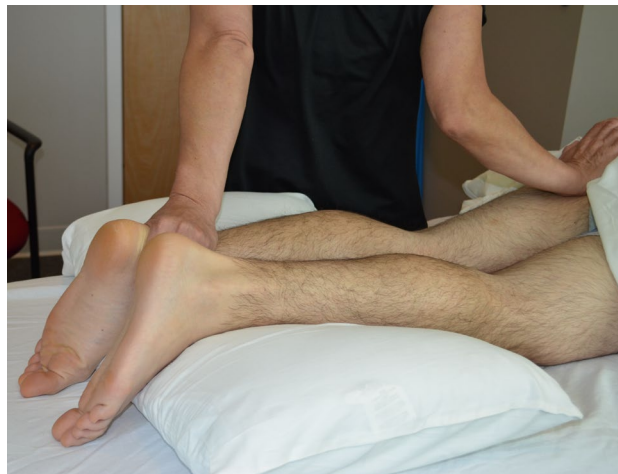
### **Latisimus Dorsi Technique:**

Cross Hand Technique where one hand is on the lumbodorsal fascia and one hand is along the lateral border of the scapula



### **Posterior Lower Extremity Technique:**

Cross Hand Technique where one hand is on the ischial tuberosity and one hand is on the posterior calcaneus.



**Medial Scapular Border Cross Hand:**

Cross Hand Technique with one hand on each of the medial scapular borders:



**Lateral Trunk Cross Hand Release:**

Cross Hand Technique with one hand on the lower rib cage and one hand on the iliac crest.





### **ITB Technique:**

Cross Hand Technique where one hand is on the greater trochanter and one hand is on the lateral thigh.



### **Lateral Neck:**

Cross Hand Technique where one hand is on the occiput and one hand is on the superior aspect of the shoulder.



**Pectoral Stretch:**

Cross hand technique with one hand on each anterior shoulder at the pectoral origin.



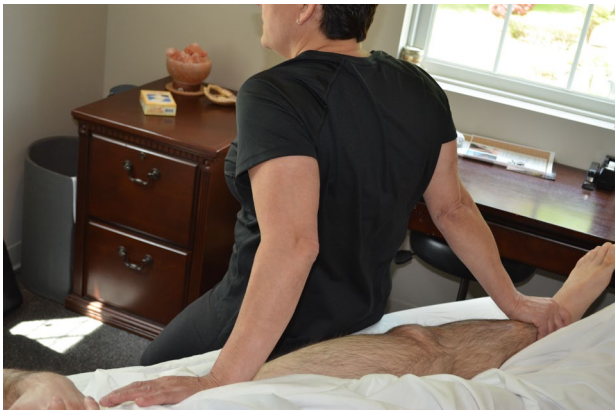
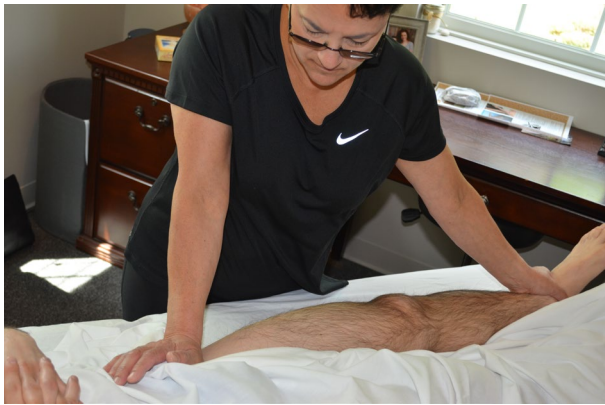
**ASIS to Anterior Thigh:**

Cross hand technique with one hand on the ilium at the ASIS and one hand on the anterior thigh.



**ASIS to Anterior Ankle:**

Cross hand technique with one hand on the ilium at the ASIS and one hand on the anterior ankle.



## Arm and Leg Pulls

### Supine Arm Pull:

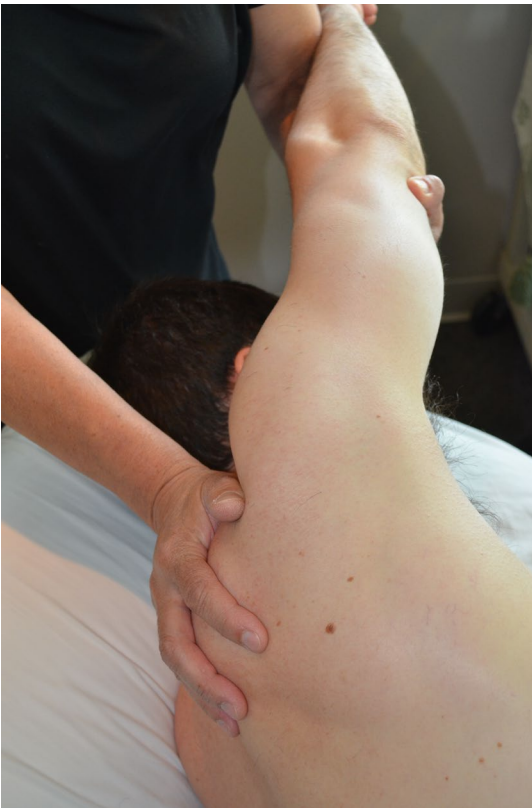
The arm pull can be used with patients who have finger, wrist, elbow, or shoulder dysfunction. It is also an excellent tool for the treatment of cervical, thoracic, and lumbar dysfunction.

1. Patient lies supine with their arm at their side.
  2. Therapist takes upper extremity and applies gentle traction through the upper extremity.
  3. While maintaining gentle traction, the therapist gently brings the arm through an arc of motion. Begin with external rotation and gradually move arm into abduction through a pain-free ROM. When arm is fully above head, gradually internally rotate and adduct the arm, allowing trunk to rotate. At this point the therapist should be on the other side of the table supporting arm in adduction and internal rotation. Use one hand to gently apply a lateral pull to the medial border of the scapula while the other hand maintains traction on the arm being treated. Return arm through traction and reversal of rotation.
- Throughout this treatment care should be taken to stay within the patient's available range and within a pain-free range.
  - Throughout this technique therapist should be tuning into very subtle barriers and waiting for a release. These releases feel like a "telescoping" of the arm.



**Side Lying Arm Pull:**





## Supine Leg Pull:

The leg pull is useful for any lower extremity dysfunction as well as SI and back dysfunction.

1. Patient lies supine.
  2. Therapist takes lower extremity with foot in dorsiflexion and hip in external rotation and applies traction through the lower extremity.
  3. As traction is applied through the length of the leg, follow an arc of motion into abduction, then abduction/flexion as in a straight leg raise with dorsiflexion.
  4. Reverse the arc to begin phase 2.
  5. During phase 2 you begin with the foot in dorsiflexion and follow an arc into hip internal rotation and adduction. The hip will usually roll forward and you will get lower trunk rotation. Maintain traction through the limb to get a “telescoping” effect.
- Again, throughout this treatment care should be taken to stay within the patient’s available range and pain-free range.
  - Therapist should tune into very subtle barriers and wait for releases throughout this technique.



**Prone Leg Pull:**





## **Myofascial Mobilizations:**

### **Psoas Release:**

Both hands are placed next to each other with fingers pointing downward into abdomen. Finger placement is about 1 1/2-2 inches lateral to the umbilicus. The direction of the release is downward and slightly medial.



### **Subscapularis Release:**

One hand supports the upper arm (which is placed in slight abduction and external rotation,) and one hand is directed on the anterior surface of the scapula through the axilla.



### **Quadratus Lumborum Release:**

Q-L release is performed by placing fingers/elbow over the Q-L region located between the ilium and ribcage lateral to the lumbar transverse processes. The direction of force is downward and medial around and under the lumbar paraspinals.



### **Piriformis Release:**

The piriformis release is performed by placing fingers/elbow over piriformis region located between the lateral border of the sacrum and the greater trochanter. Find the midpoint of the lateral border of the sacrum and visualize a line between this point and the greater trochanter. The piriformis can be palpated approximately midway between the sacrum and the greater trochanter.



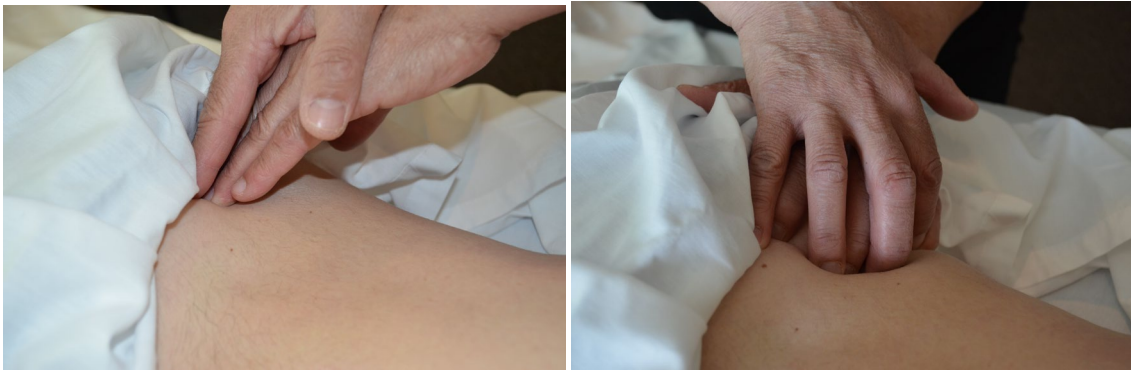
### **Levator Scapulae Release:**

1. Place patient in prone position with arm behind back.
2. Place one hand at the superior border of the scapula and the other hand cradling the inferior angle of the scapula.
3. Lean your trunk into the patient's elbow applying some compression through the arm into the scapula.
4. Rock the scapula until your fingers at the superior border of the scapula are on the anterior surface of the scapula.
5. Lift the scapula up toward the ceiling and in a caudad direction.
6. Follow as the scapula and levator scapulae release and unwind.



### **Gluteal Muscles:**

1. Place patient in prone.
2. Using a “bear claw” hand position engage the gluteal muscle belly just to the end range of the collagenous barrier.
3. Follow as the tissue releases and unwinds.



## Hand Placements for Transverse Fascial Planes

Patients are in the supine position for all below techniques and therapist is sitting next to the treatment table.

For all transverse plane releases the bottom hand acts as a firm supportive foundation. The top hand applies light anterior/posterior pressure. The goal is to lightly engage the connective tissue and follow the tissue three dimensionally as it releases. Each position should be maintained for a minimum of 90-120 seconds.

### **Pelvic Floor:**

1. Place one hand under the patient's sacrum.
2. Place the other hand on the lower abdomen just superior to the pubic rami.



### **Respiratory Diaphragm:**

1. Place one hand under the thoraco-lumbar junction.
2. Place the other hand over the epigastrium, the xiphoid process and the anterior inferior costal margins.



### **Thoracic Inlet:**

1. Place one hand under the cervical/thoracic junction, covering C7-T2.
  2. Place the other hand on the anterior/superior thoracic wall so that you are covering the sternoclavicular joints, suprasternal notch, and costochondral junctions.
- This can also be completed with one hand supporting/cradling the occiput and the other hand placed as in #2.
  - This technique should always be completed prior to completing an occipital condyle release.



## **Lumbosacral Decompression:**

The patient is in a supine position:

1. This is completed in three stages. In all three stages the therapist's operating arm is placed between the patient's legs with the operating hand cradling the sacrum. The therapist's elbow rests on the table.  
At each stage the therapist is applying gentle traction to the sacrum in a caudal direction. At each stage the barrier must be engaged and the therapist must wait at least 90-120 seconds for the release to begin.  
Do not force through the barrier but gently maintain your traction and follow the sacrum three dimensionally as it releases.
2. In the first stage the supporting hand is placed under the lumbar spine close to the lumbosacral junction.
3. In the second stage either the patient or the therapist "gaps" the ilium by applying gentle medial pressure on the anterior ilium.
4. In the third stage the therapist places the supporting hand on the pelvic floor just superior to the pubis and directs a counterpressure in a cephalad direction.



## Occipital Condyle Release:

The patient is in a supine position.

This is completed in three stages. The therapist should perform a vertebral artery test prior to this technique.

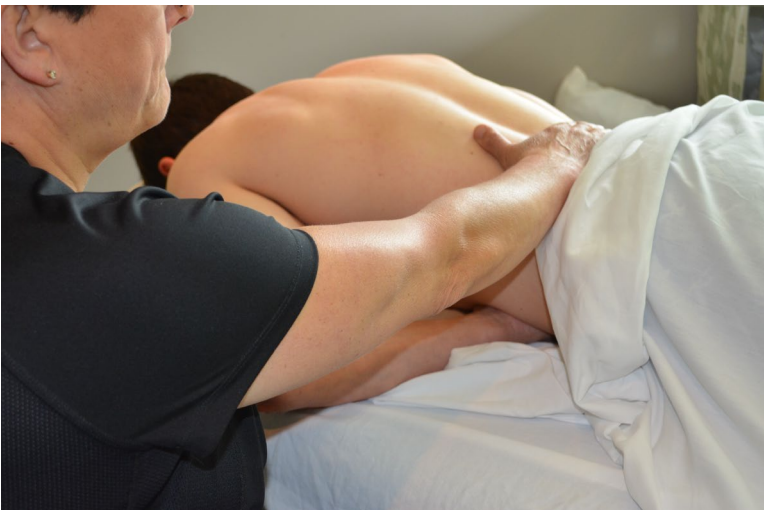
1. The therapist begins with their fingers flexed at the MCP joints and extended at the IP joints. The pads of your fingers are in contact with the occiput. The therapeutic force is supplied only by the weight of the patient's head on your fingers. As the tissues of the suboccipital region relax due to the fingertip pressure, the patient's head will begin to settle into the palms of your hands. Continue the pressure at the suboccipital region in a straight anterior direction.
2. As the tissues relax you will feel the firmness of the posterior arch of the atlas. Slowly the atlas will disengage from the occiput creating a "floating" sensation. As it "floats" follow and "balance" it. Once it seems free from the occiput, support the atlas anteriorly with the tips of your ring fingers. Move the occiput gently and minutely in a posterior direction with your middle fingers. This will disengage the occiput from the atlas and decompress the occipital condyle region.
3. Following the disengagement above, cradle the occiput in the palms of your hands and gently draw the occiput cephalad (toward your belly) and maintain for 3-5 minutes to release the dural tube.



**Transverse Plane Release for Joints:**



**Transverse Plane Release for Scars:**





**Scar Releases with Cross Hand Principle:**



**Scar Releases with Myofascial Mobilization Principle:**



**Indications for the Pediatric population:**

**Torticollis  
Cranial asymmetry  
Suck/swallow dysfunction  
Colic symptoms  
Chronic ear infections  
Scoliosis or other postural asymmetries  
ADD and some forms of autism**

**References:**

**A Brain is Born by John Upledger, D.O., O.M.M.  
Healing your Child by Dr. Barry Gillespie  
Myofascial Release – The Search for Excellence, by John F. Barnes, P.T.  
Cranialsacral Therapy by John Upledger, D. O., O.M.M.**

**Level of experience needed from provider: Advanced**

**Indications for the OB/GYN population:**

**Pelvic pain and/or menstrual cramping  
Headaches associated with menstruation or ovulation  
Painful intercourse  
Urinary frequency or incontinence  
Severe vagus nerve symptoms during pregnancy  
Surgical scar as a result of episiotomy, C-section, hysterectomy, laparoscopy, laparotomy, etc.  
Infertility when other etiologies have been ruled out  
Pain during pregnancy or postpartum**

**References:**

**Visceral Manipulation by Jean-Paul Barral, D.O. and Pierre Mercier, D.O.  
Urogenital Manipulation by Jean-Paul Barral, D.O.**

**Level of experience needed from provider: Advanced when internal Myofascial release is required, (episiotomy scars, bladder dysfunction, painful intercourse,) and Beginner/Intermediate for all others**

**Indications for Orthopedic and Rheumatology population:**

**Chronic pain disorders  
Fibromyalgia  
Carpal tunnel syndrome  
Plantar fasciitis  
Back and neck pain**

**Thoracic outlet syndrome**  
**Chronic headaches**  
**Some forms of tinnitus**  
**Restrictions form scarring and adhesions**  
**Postural asymmetries and scoliosis**  
**Depression**  
**Somatic symptoms**  
**Physical or sexual trauma**

**References:**

**Myofascial Release – The Search for Excellence by John F. Barnes, PT**  
**Anatomy Trains by Tom Myers**  
**The Endless Web by R. Louis Schultz, PhD and Rosemary Feiris, D.O.**

**Level of experience required by practitioner: Beginner to advanced based on how complicated and chronic the disorder presents.**

**References for Somatoemotional release:**

**Energy Medicine in Therapeutics and Human Performance by James Oschman, PhD.**  
**Somatoemotional Release and Beyond by John Upledger. D.O.**  
**Molecules of Emotion by Candace Pert, PhD.**  
**Waking the Tiger by Peter Levine, PhD.**

**Level of experience required by practitioner for somatoemotional issues: Advanced**

- **I believe beginning level proficiency requires completion of at least the first three classes of MFR continued education programs.**
- **Pediatric and internal MFR requires advanced level training specific to this population.**

## **References for Current Research and Scientific Articles:**

<http://www.fasciacongress.org>

<http://www.myofascialresource.com>

## **Bibliography and Recommended Reading List**

1. Anatomy of Movement  
Calais-Germain, B. Anatomy of Movement. Eastland Press. 1992
2. Anatomy Trains  
Myers, T. Anatomy Trains. Harcourt Publishers Limited. 2001
3. Craniosacral Therapy  
Upledger and Vredevoogd. Eastland Press. 1983
4. Grant's Atlas of Anatomy  
Anderson, J. Williams and Wilkins. Eighth Edition. 1982
5. Healing Ancient Wounds – The Renegade's Wisdom  
Barnes, JB. Rehabilitation Services, Inc. 2000
6. The Endless Web – Fascial Anatomy and Physical Reality  
Schultz, R.L. and Feitis, R. North Atlantic Books. 1996
7. Myofascial Release – The Search for Excellence  
Barnes, JB. JF Barnes and Rehabilitation Services, Inc. 1990.
8. Waking the Tiger – Healing Trauma  
Levine, P. North Atlantic Books. 1997

## **Additional and updated resources:**

1. Fascia in Sports and Movement. Schleip, et al. Handspring Publishing. 2015.
2. The Fascia – Anatomy, Dysfunction and Treatment. Paoletti. Eastland Press. 2006.
3. Fascia – The Tensional Network of the Human Body. Schleip, Findley, Chaitow, Huijing. Elsevier. 2012.
4. Architecture of Human Living Fascia – The Extracellular Matrix of Cells Revealed Through Endoscopy. Guimberteau. Armstrong. Handspring Publishing. 2015.
5. Shift Movement Science: [www.shiftmovmentscience.com](http://www.shiftmovmentscience.com)

## **Contraindications:**

Keep in mind that before any treatment is undertaken, a thorough diagnostic workup by a physician should take place in order to rule out any underlying disease process. Furthermore, a comprehensive history and evaluation should precede any treatment.

The following are contraindications listed By Barnes and Upledger in reference to MFR and cranialsacral techniques:

MFR contraindications:

- Malignancy
- Cellulitis
- Febrile state
- Systemic or localized infection
- Acute circulatory condition
- Osteomyelitis
- Aneurysm
- Obstructive edema
- Acute rheumatoid arthritis
- Open wounds
- Suture
- Hematoma
- Healing fracture
- Osteoporosis or advanced degenerative changes
- Anticoagulant therapy
- Advanced diabetes
- Hypersensitivity of skin

CST Contraindications:

- Acute intracranial hemorrhage: may prolong the duration of hemorrhage by interrupting clot formation
- Intracranial aneurysm – may induce leak or rupture
- Herniation of medulla oblongata – life threatening condition
- Recent skull fracture – best avoided: may be with discretion by advanced therapist
- Acute systemic infectious conditions – generally avoided however compression and distraction or CV-4 induced “still-point” may help lower fever.