Fascial Therapy Program – Part 2

Meet the Presenter - Pete Pfannerstill, Ph.D., LMT, NCTMB, CKTI (FL Lic # MA24089)

Pete Pfannerstill is more than just a Sports Massage Therapist. He is an athlete, a scientist and an educator of the highest degree. His pursuit in helping athletes to their maximum ability to perform is a never-ending goal. His own dedication to running has allowed him to finish over 40 marathons (PR 3:13:12) and ultramarathons, including three 100 mile runs (PR 23:30). He could not have achieved this level of competition without a total understanding of the body and how it works under stress.

Yet Pete did not begin his career in athletics. His schooling was in Chemistry, attaining his doctorate in Analytical Chemistry from the University of Cincinnati in 1989. After working as a chemist for several years, he contemplated increasing his endurance and timing by better understanding the body. He decided that learning sports massage therapy would be advantageous, not only to himself but to his running mates. He never thought that massage therapy would ever become anything more than a hobby.

As Pete attended massage school, he slowly realized that working on people and helping them with their various physical issues was far more satisfying than working in a chemistry lab. The more he learned and the more athletes he worked on, the more he realized that sports massage was where he needed to be. It took two long years of developing an athletic clientele before he could say goodbye to chemistry forever. He hasn't looked back since.

Sports massage was always foremost on Pete's mind. Every event (from 5K runs to Ironman triathlons) that he could work, he would. He accumulated the knowledge of working on each athlete and took every sports massage workshop available (Aaron Mattes, James Waslaski, among others). But it was the training in Myofascial Therapy (MFT) that Pete received from William Bonney, Ph.D., LMT that provided Pete with his greatest insight into dealing with athletes. Integrating MFT into his clinical sports massage practice has taken him to new levels of understanding of the athlete's timing, participation and recovery from the intensity of competition. He has worked with major league baseball, with Olympic athletes and with the top triathletes in the world.

And now Pete incorporates his collective knowledge of sports training and sports massage into the Myofascial Sports Massage course that you are about to take. His protocols are time tested and truly an excellent addition to any massage therapist who seeks to improve the skills for his or her craft. Once you have digested the knowledge, Pete suggests you incorporate these strokes and protocols into your own routines to better treat your clients.

Pete Pfannerstill, PhD, LMT, NCTMB, CKTI · pete@ultrasportsmassage.com · www.ultrasportsmassage.com 813-482-7200

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Fascial Therapy Program – Recognition

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Fascial Therapy Program – Recognition

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

"A fibrous membrane covering, supporting and separating muscles. It also unites the skin with the underlying structures. Fascia may be superficial, a nearly subcutaneous covering permitting free movement of the skin, or it may be deep, enveloping and binding muscles."

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia is a subcategory of the larger classification of connective tissues

- Fluid connective tissue – Blood, etc.
- Supporting connective tissue – Bone, etc.
- Connective tissue proper – FASCIA!

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components

- Cells
- Extracellular matrix - ground substance
- Fibers produced by fibroblasts
- Myofibroblasts

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components - Cells

- Resident
- Wandering

amta 8

Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components – Resident Cells

- Fibroblasts – most abundant & main secretory cell
- Adipocyte – cushions & wraps structures
- Adipose tissue – large #'s of adipocytes
- Fixed macrophage – immune system
- Mesenchymal - embryonic cell that can change function

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components - Wandering Cells
Primarily leukocytes

- Mast – secretes histamine & heparin
- Plasma – synthesizes antibodies for infection
- Free macrophage – Immune system

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components - Extracellular Matrix or Ground substance

- Acts as the circulatory system, diffusing nutrients & waste products to vascular areas
- Physical barrier to invading pathogens
- Provides tissue volume to prevent microadhesions
- Contains collagen, elastin & reticulin

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components – Fibroblast Fibers

- Collagen – Provides strength & structure
- Elastin – Allows tissues to stretch, branch & recoil
- Reticulin – Support structure for vessels, nerves & organs

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Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components – Myofibroblasts

- Modulated fibroblasts that acquire smooth muscle features & abilities
- Essential in the reconstruction of injured connective tissue

Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components – Myofibroblasts

- If too active, can contribute to formation of adhesions in chronically stressed tissues because of
  - Poor posture habits
  - Dysfunctional movement patterns
  - Repetitive movement behaviors

Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascia Components – Mechanoreceptors

- Golgi receptors – Respond to slow stretch and increased muscle tension
- Pacini corpuscles – Respond to quick changes in pressure & vibrations
- Ruffini organs – Respond to long, sustained pressure

Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Classifications of Fascia

- Loose connective tissue – Contains higher percentage of ground substance than fibers (areolar, reticular & adipose tissue)
- Dense connective tissue – Contains higher ratio of fibers to ground substance, categorized into regular (tendons & ligaments) and irregular (resist stresses from multiple directions)

Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Viscoelastic tissue contains both elastic and deformative properties

When placed under physical stress, a solid body can respond by

- Breaking
- Deforming
- Elastically reforming

Fascial Therapy Program – Review Part 1

Chapter 1. What is Fascia?

Fascial Therapy attempts to exceed the elastic component of the fascia, by breaking the intermolecular and intramolecular bonds between collagen fibers in adhered structures, realigning connective tissues, and allowing muscles to move more freely.

Fascial Therapy Program – Review Part 1

Chapter 2. Kinesiology

The study of anatomy (structure), neuromuscular physiology (function) and biomechanics (how the body moves through space)

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Fascial Therapy Program – Review Part 1

Chapter 3. Overview of Fascial Restrictions

Inflammation – The body's response to injured tissue which can result in the haphazard deposition of connective tissue, leading to fascial bunching or binding.

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Fascial Therapy Program – Review Part 1

Chapter 3. Overview of Fascial Restrictions

Posture refers to the positioning or alignment of the body and its parts in relation to on another and to the space that they inhabit.

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Fascial Therapy Program – Review Part 1

Chapter 3. Overview of Fascial Restrictions

Poor posture can result in chronic structural imbalances that can lead to tightness, muscular strains and fascial restrictions as the body attempts to react to the applied stress.

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Fascial Therapy Program – Review Part 1

Chapter 3. Overview of Fascial Restrictions

A relaxation massage that addresses only the more superficial soft tissue, will most often only give temporary relief, but will not produce significant changes because the fascia is so adhered.

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Fascial Therapy Program – Review Part 1

Chapter 3. Overview of Fascial Restrictions

Perpetuating factors that influence fascial restrictions:

- Smoking
- Lack of Exercise
- Diet and Nutrition
- Stress

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Fascial Therapy Program – Review Part 1

Chapter 4. Indications for Fascial Therapy

Fascia can become weakened or damaged by:

- Direct trauma
- Poor posture
- Dehydration.

Fascial Therapy Program – Review Part 1

Chapter 4. Indications for Fascial Therapy

- Pain
- Decreased R.O.M.
- Muscle weakness
- Impaired respiration
- Headaches
- Myofascial trigger points
- Scar tissue
- Parasthesia
- Postural asymmetries, distortion or dysfunction
- Chronic emotional distress
- Performance enhancement

Fascial Therapy Program – Review Part 1

Chapter 4. Indications for Fascial Therapy

Fascial therapy allows athletes to tap into all of their strength and endurance by releasing their muscles from adhesions, increasing lubrication of joints and muscles and allowing their muscles to work in biomechanically efficient ways.

Fascial Therapy Program – Review Part 1

Chapter 5. Contraindications – Local

- Acute flare-up of inflammatory arthritis
- Acute brachial plexus neuritis
- Aneurysm
- Baker's cyst
- Ectopic pregnancy
- Frostbite
- Contagious/inflammatory skin conditions

Fascial Therapy Program – Review Part 1

Chapter 5. Contraindications – Local

- Open wounds or sores
- Peripheral neuropathy
- Phlebitis
- Recent burns
- Undiagnosed lump
- Sutures
- Hematoma
- Healing fracture

Fascial Therapy Program – Review Part 1

Chapter 5. Contraindications – Systemic

- Acute conditions
- Acute liver failure
- Kidney failure
- Cellulitis/sepsis
- Febrile state
- Systemic or localized infection
- Osteomyelitis
- Obstructive edema
- Anticoagulant therapy
- Advanced diabetes
- Deep abdominal work during pregnancy

Fascial Therapy Program – Review Part 1

Chapter 6. Assessment and Documentation

Oral and written intake forms:

- Health history
- Previous trauma
- Medical procedures
- Diagnosed medical conditions
- Medications
- Injuries
- Areas of pain, tension or unease

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Fascial Therapy Program – Review Part 1

Chapter 6. Assessment and Documentation

Assessment

- Client requests and priorities
- Observation of client
- Gait assessment
- Active and/or passive R.O.M. testing
- Special orthopedic tests
- Manual muscle tests
- Demonstrate offending movement/position
- Postural assessment

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Fascial Therapy Program – Review Part 1

Chapter 6. Assessment and Documentation

Postural assessment - using grid, plumb line or photos

- Anterior view – Check pelvis, knees, rib cage, shoulder girdle, head; horizontal, tilted rotated, stretched or shortened.
- Side view – Vertical alignment, pelvic tilt, neck, head, spine; anterior, posterior, flat, lordosis
- Posterior view – Check scoliosis, iliac crests, scapulae, Achilles, feet; rotation, twist, tilt, shift

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Fascial Therapy Program – Review Part 1

Chapter 7. How Fascial Therapy Works

Theories on how the extracellular matrix becomes more fluid:

- Thixotropy
- Piezoelectricity
- Neural dynamics

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Fascial Therapy Program – Review Part 1

Chapter 7. How Fascial Therapy Works

Benefits and expected outcomes

- Elongates the connective tissue
- Restores elasticity to the fascia
- Releases cross-linkages and adhesions
- Increases R.O.M. and relieves neural pain
- Relieves pain from systemic stress
- Relieves trigger points & muscle spasm
- Relaxes hypertonic tissue by engaging the Golgi tendon reflex
- Promotes functional scar tissue
- Increases rib cage mobility & breathing capacity

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Fascial Therapy Program – Review Part 1

Chapter 7. How Fascial Therapy Works

For fascial therapy to be proven effective to the physicians & medical community with whom we work and from whom we receive referrals, research is extremely important.

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Fascial Therapy Program – Review Part 1

Chapter 8. Approaches to Working with Fascia

- Clarify the intent of the session
- Communicate with the client
- Negotiate and come to an agreement on the session

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Fascial Therapy Program – Review Part 1

Chapter 8. Approaches to Working with Fascia

- Structural Integration – Rolfing
- Anatomy Trains – Kinesis Myofascial Integration (KMI)
- Bindegewebsmassage – Connective Tissue Therapy (CTT)
- Hellerwork
- Trigger Point Therapy
- Myofascial Release (MFR)

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Fascial Therapy Program – Review Part 1

Chapter 8. Approaches to Working with Fascia

- Active Release Technique (ART)
- Naprapathy
- Craniosacral Therapy (CST)
- Myofascial Therapy (MFT)
- Myofascial Sports Massage (MSM)

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Fascial Therapy Program – Review Part 1

Chapter 8. Approaches to Working with Fascia

Adjunct Therapies

- Proprioceptive Neuromuscular Facilitation (PNF)
- Muscle Energy Technique (MET)
- Hydrotherapy
- Energy work
- Active Isolated Stretching (AIS)
- Movement Reeducation
- Pilates

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Fascial Therapy Program – Review Part 1

Chapter 8. Approaches to Working with Fascia

Which approach do you use?

- Scope of Practice
- Training in the particular modality
- Professional interests
- Client goals

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Fascial Therapy Program – Review Part 1

Chapter 9. Performing Fascial Therapy

Fascial Therapy Techniques

- Cross-hand fascial release
- Sustained holds
- Leg pulls
- Combination releases
- Fascial mobilization strokes
- Trigger point release
- Tools
- Movement

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Fascial Therapy Program
Part 2 – Face-to-Face,
Hands-on Workshop
Myofascial Sports Massage

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Fascial Therapy Program – Part 2

Myofascial Sports Massage

Treatment Goals

- Improve alignment by improving function of superficial fascia, extrinsic musculature & joints.
- Improve flexibility and breathing.
- Facilitate athlete's neurosomatic awareness.
- Facilitate self-reliance by helping to prioritize athlete's health and wellness goals.
- All techniques should improve structural balance & function – we are not seeking symmetry.

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Fascial Therapy Program – Part 2

Myofascial Sports Massage

Body Reading

- Body reading is performed at the beginning, middle and end of each session.
- Client is minimally dressed in comfortable clothing – running shorts, sports bra, T-shirt.

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Fascial Therapy Program – Part 2

Myofascial Sports Massage

Body Reading – *Anterior View:*

- Check ASIS and determine whether either is more anterior/posterior or more superior/inferior. When the athlete is supine, check ASIS level again & check leg length.
- Check knees and feet for excessive medial/lateral rotation. Notice support of arches and the athlete's perceived weight bearing on the feet. Check again when supine.
- Check shoulder height and rotation and notice comparative length of lateral thorax.

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Fascial Therapy Program – Part 2

Myofascial Sports Massage

Body Reading – *Side View:*

- Check anterior tilt of pelvis, looking for extent of lordosis.
- Check for hyperextension of knees. Ask if "knees feel locked."
- Check for kyphosis and position of head and relative to trunk.

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Fascial Therapy Program – Part 2

Myofascial Sports Massage

Body Reading – *Posterior View:*

- Check for bunching or splaying of lumbar musculature.
- Check for rotation of feet and alignment of Achilles tendon.
- Check for balance of thoracic musculature and scapula.
- Check positioning of head and neck.
- Check spinal alignment for scoliosis. Also check when prone.

Use the mid-session standing exercise as a primary method of increasing athlete's neurosomatic awareness.

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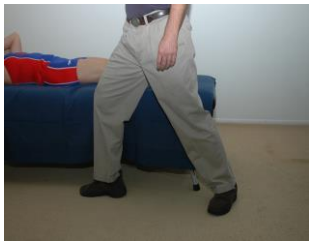
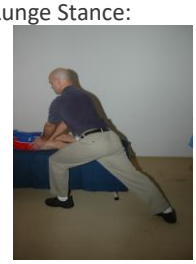
Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics

- Beginning table height should be set to approx. the level of the therapist's patella. Adjustments can be made for therapist comfort.



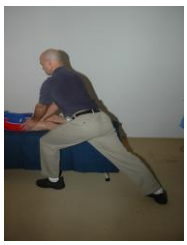
Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics - Initial Lunge Stance:

- Feet about 2-3X shoulder width apart
- Arms at about 45˚ to surface
- Front foot parallel to arms & pointing toward athlete
- Rear foot at about 45-60˚ from front foot
- Hips perpendicular to athlete



Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics - Initial Lunge Stance:

- Lumbar spine flat and in line with rear lower extremity
- Shoulders depressed and retracted (i.e. chest out)
- Elbows straight but not locked
- Upper extremities & chest relaxed
- Wrists are straight and inline with forearms



Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics

DO NOT:

- Bend at the waist
- Elevate shoulders

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics

DO NOT:

- Bend elbows
- Get on your toes

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics

DO NOT:

- "Muscle" the tissue

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics
DO NOT:
- Hyperextend and no radial or ulnar deviation


Fascial Therapy Program – Part 2
Myofascial Sports Massage
Body Mechanics
DO NOT:
- Forget to BREATHE!

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Myofascial Spreading
- Perform with very little lubricant to allow for the correct amount of tissue drag.
- Strokes are done slowly and deliberately.
- Use lunge stance as described in Body Mechanics section.
- Spread small sections of tissue – 1-2 in. at a time.
- Angle of entry determines the depth of the stroke.
- Once appropriate depth has been reached, more specific techniques can be used.
- Smooth after to balance affected tissues and to reduce potential for endemic response.

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Myofascial Spreading

Working from an imaginary midline, using the palms, finger pads, finger tips, knuckles, or back of fist ("5-0 stroke"):

1. Reduce the slack of the superficial tissues
2. Then fall into the surface, while you allow your palms (fingertips, knuckles, 5-0) to separate.
3. Front knee bends as you transfer your weight to front foot and to the surface of the body and the rest of body moves in unison.

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Myofascial Spreading - Palmar

Pressure is on the thenar eminence; no pressure is on thumbs.

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Myofascial Spreading - Fingertips

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Myofascial Spreading - Knuckles

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Myofascial Spreading – "5-0"

Fascial Therapy Program – Part 2
Myofascial Sports Massage

Full Body MSM Routine

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Full Body MSM Routine

Begin with athlete supine: Start at ankle, work upward through leg, thigh, abdomen and chest.

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Full Body MSM Routine

With athlete sidelying: Start at iliac crest and work downward on lateral thigh and leg from hip to foot. Can work from either side of the table.

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Full Body MSM Routine

With athlete sidelying: Start at iliac crest and work upward to axilla.

Fascial Therapy Program – Part 2

Myofascial Sports Massage

Full Body MSM Routine

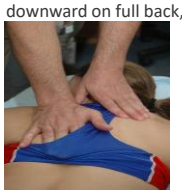
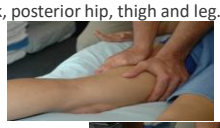
With athlete sidelying: Standing superior of athlete's head, work deltoid & lateral neck.


Fascial Therapy Program – Part 2

Myofascial Sports Massage

Full Body MSM Routine

With athlete prone: Start at upper back and work downward on full back, posterior hip, thigh and leg.


Fascial Therapy Program – Part 2

Myofascial Sports Massage

Full Body MSM Routine

With athlete sidelying, exposing medial lower limb: Start at medial ankle and work upward through leg and thigh.


Fascial Therapy Program – Part 2

Myofascial Sports Massage

Full Body MSM Routine

Stand after first side and ask athlete:
"What do you notice?"

Repeat Body Reading

Repeat Full Body MSM Routine on other side.

Fascial Therapy Program – Part 2

Myofascial Sports Massage

Thigh Strain

Fascial Therapy Program – Part 2

Myofascial Sports Massage

Thigh Strain - Quadriceps

Muscles involved: Rectus femoris, vastus medialis & vastus lateralis

Symptoms: Sudden stabbing pain in quadriceps muscle(s). Possible deformity or discoloration and localized tenderness. In cases of mild strains, the pain may not be felt until after the sports activity has ceased.

Causes: Violent (eccentric) contraction of the quadriceps muscle(s) when trying to decelerate. Can occur in downhill running.

Athletes at risk: Athletes that are engaged in sports that require explosive stop-start running motions.

Concerns: Likely to recur unless treated properly.

What to do: Ice • Rest • Massage when subacute • Strengthening • Kinesio® Taping

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain - Adductors

Muscles involved: Adductor magnus, adductor longus, pectineus, sartorius & gracilis

Symptoms: Sudden stabbing pain in the groin. Inability to draw the leg inward without pain. Bruising and swelling may show up several days later. May have palpable deformity.

Causes: A violent contraction of the adductor muscles.

Athletes at risk: Athletes whose sport involves dynamic use of the adductor muscles, e.g., hockey and soccer players. Athletes with weak or inflexible adductors.

Concerns: Likely to recur unless treated properly.

What to do: Ice • Rest • Massage subacute • Strengthening • Kinesio® Taping

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Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain - Hamstrings

Muscles involved: biceps femoris, semimembranosus & semitendinosus

Symptoms: Athlete feels a slight "pull" in hamstring(s) while sprinting but is able to continue the activity. The day after the muscle may be sore, but it does not inhibit walking or slow jogging.

Causes: A violent contraction of the hamstrings. Also happens when the hamstrings are overstretched.

Athletes at risk, Concerns & What to do: Same as above for Quad Strain.

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Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain MSM Routine

For the previous thigh strains or for tight or sore quads, hams or adductors, focus this routine on the particular issue that the athlete is experiencing.

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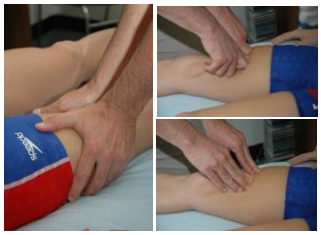
Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain MSM Routine

1. Warm up quads with palmar spreading from knee to ASIS getting deeper with each pass. 4-5 repeats. You can repeat using single knuckle or fingertip spreading.



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Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain MSM Routine

2. Stand perpendicular to athlete, medially rotate femur & knuckle spread (5-0 stroke) from anterior to posterior, across vastus lateralis & ITB from knee to greater trochanter. 2-4 reps.

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Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain MSM Routine

3. Rotate thigh laterally and palmar spread adductors from anterior to posterior from knee to groin, or with 5-0 spreading from opposite side of table. 3-4 reps. This can be very uncomfortable for athletes with adipose tissue.

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Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain MSM Routine

4. Place foot flat on table & warm posterior thigh with friction. Pick up thigh & knuckle spread from posterior knee to ischial tuberosity. Make several passes and vary the thigh angle to contact vastus lateralis & ITB and biceps femoris.

Fascial Therapy Program – Part 2
Myofascial Sports Massage
Thigh Strain MSM Routine

5. Work semimembranosus and semitendinosus the posterior medial thigh by going over leg and abducting thigh slightly. This is also a good way to work the gracilis. Smooth posterior and lateral thigh.
6. Smooth all areas to finish.

Fascial Therapy Program – Part 2
Myofascial Sports Massage

Common sports-related injuries & Myofascial Sports Massage routines covered in 16 CE hour course

- Quadriceps, Hamstring or Adductor Strain
- Iliotibial Band Syndrome
- Hip Flexor Strain
- Anterior & Posterior Compartment Syndrome
- Plantar Fasciitis
- Neck Strain/Sprain
- Shoulder/Rotator Cuff Injuries
- Mechanical Low Back Injuries
- Sciatica/Piriformis Syndrome