Conflicts

The statements and opinions contained in this program are solely mine and may not be the same as those of Auburn University or my colleagues.

I have no conflicts of interests, relationships, or financial interests to disclose.

Participants must use discretion when using the information contained in this presentation. It is not intended to replace consultation with or treatment by a certified, licensed massage therapist.

Objectives

- Summarize the research on physiological and clinical effects of massage.
- Identify indications and contraindications for use of massage in athletic populations.
- Discover specific massage interventions Athletic Trainers can use on the field and during rehabilitation/treatment.
- Understand how massage therapy applications can be combined with other treatment modalities for improved outcomes.
Athletic training education programs vary tremendously on the amount of hands-on massage therapy skills that are included in education programs. Content and skills learned tends to be based on the mentor’s skills and knowledge base. This program will introduce massage therapy techniques that athletic trainers can used today to improve treatment outcomes. Updated research information will be included to ensure evidence-based practice.

**Physiological and Clinical Effects of Massage**

Research evidence suggests massage therapy (MT) may:

- Reduce blood pressure\(^1\)
- Reduce low back, knee/hip OA, shoulder, and other musculoskeletal pain\(^2,3\)
- Improve ROM and flexibility\(^4,5\)
- Reduce occurrence and pain from DOMS\(^6,7\)
- Improve pain and function in muscles with trigger points\(^8,9\)
- Improve blood flow\(^10\)
- Positively influence muscle healing and recovery\(^11,12,13\)
- Reduce stress, anxiety and improve wellness\(^14,15,16\)
- Reduce headache frequency and pain\(^17,18,19\)
- Assist in the treatment and management of scars\(^20\)
Indications

• Stiffness
• Tightness/contracted tissues
• Decreased range of motion
• Muscle pain/spasm
• Muscle adhesions
• Healing scars (check with physician)

Contraindications

• Fever
• Infection
• Open wounds
• Muscle/tendon ruptures (acute) or contusions (may encourage bleeding)
• Burns, broken bones, childbirths, infections, rheumatoid arthritis, gout
• Congenital diseases (ventriculopathy)
• Recent superficial cuts or body (must be performed by a professional MT)
• Muscular
• Use immediate recall from an infectious disease
• Vaccination within 7 days or 2 weeks after
• Allergies – caution with lubricants
• Broken or slight scars versus that indicate a possible fracture, dislocation, or other
tissue
• Allergies – caution with lubricants
• Pregnancy – a nurse, midwife, or medical doctor, 2nd trimester
• Thermal injuries, visible burns, or diathermy
• Recent organ transplants, artificial heart, etc.
• Recent surgery
• Vericose veins (do not work over the area)
• All types of infections should not be done right after: band infections, or for
• When in doubt don’t do it.

Massage Interventions and Combined Treatments

- Warm up all tissues before doing any deeper work
- Slowly increase pressure to athlete’s tolerance
- Constantly get feedback from athlete
- More pressure is not always better
- Pain is bad
- Use functional movement after work to help restore normal movement (slowly
to start)
- Do rehabilitation to correct imbalances causing the issue

Important Guidelines
Acute Cramp

- On the field – put muscle on stretch and put ice bag on the back of the calf right on the skin
- After the cramp resolves, have the athlete walk around
- Then you can proceed to massage the calf

Tightness

- Clinch or field – warm up calf by gentle squeezing/lifting in those pressure points, get warmed up before proceeding
- Position athlete prone with knees slightly bent, and hold the foot in one hand while applying slow compressive effleurage from distal to proximal just below the ischial tuberosity
- Look for trigger points (TPs) mid muscle belly
- Work lateral muscles the same way if this is the problem area

Calf

Lower Body Sports

Common Trigger Points

TFL/Lateral Thigh

- Combine heat, EMS, stretch and TP work, whichever is distal attachment is painful
- Position athlete on the table with knees in slight flexion
- Apply heat pack to the upper thigh, ice pack to the distal attachment and use IF EMS (4 pads in X arrangement around distal attachment/pain point)
- After Tx - carefully use forearm/elbow to apply pressure to points mid-thigh – about every 2” (orange bracket). There will be a section that is much more sensitive – spend extra time and care there.
- After – do a long gentle stretch, and have the athlete slowly get off the table and walk as normally as possible
- Repeat next day if needed.
Glutes

- This is very similar to what I’d use down the TFL.
- Note the movement direction, positioning of the athlete, and he checks in regularly with her.
- https://www.youtube.com/watch?v=CuchzjMclmI

Hamstrings

- In addition, do TP and transverse friction at the proximal attachment green circle.
- Hamstring tightness is often a function of hip flexor shortening, treat that first.

Upper Body

- Headache – work TP’s around the base of the occiput.
- Sinus headache – work TP’s around eyebrow, base of nose, and top of cheek bone – careful!
- For more advanced neck work involve an MT.
- Sports involving the upper body often result in TP’s in the rotator cuff and below the trapezius.
Neck/shoulders

- Warm up the area
- Squeeze traps and pull up and hold, then grasp and warm up whole area you will work
- For neck stiffness, grasp neck muscles with neck in head forward position, while you hold them have athlete slowly rotate head away from you. Repeat 3x. Repeat procedure with the posterior neck muscles, having the athlete slowly lower chin to chest.
- Investigate TPs and work, followed by lengthening the muscles
- Look esp along the mid scapular border
- For neck stiffness assess scalenes and L. scapula
- Trapezius may be tense, TPs are usually deeper

TPs, Scars, Edema

- Trigger points (TP) – can be painful and refer pain to other areas of the body. There are many ways to treat TP. After warming up the area, I like applying pressure in an indirect angle (Play with this) and holding.Start slow and work with the athlete’s pain level. Slowly increase pressure to pain threshold. Hold for 30-60s. Release, repeat.
- Scars – Once a scar has begun to heal do transverse friction to break up adhesions that are forming. Work to create a movable scar with scar tissue fibers aligning in one direction. Start working away from the scar and as it heals you can work on top of the scar. Pressure must be firm. https://www.youtube.com/watch?v=8Su_5So7xFk
- Edema – warm up the area below and above the edema. Then start distally and work with light effleurage towards the heart. Using very gentle touch, continue to gently push the edema out of the limb and toward the heart. Elevate the limb if you can. When done correctly you can see a visual change after 5 minute or more. Great for sprained ankles and post surgically edema.

Questions, Comments, Thoughts, Discussion!

Thank you!
References


