



# 71a Sports Massage: Theory



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## Lesson Plan

5 minutes

Attendance, Breath of Arrival, and Reminders

10 minutes

Lecture:

25 minutes

Lecture:

15 minutes

Active study skills:

60 minutes

Total



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## Class Reminders

### Quizzes:

- 78a Kinesiology Quiz (erectors, lats, quadratus lumborum, multifidi, rotatores, gluteals, hamstrings, quads, piriformis, quadratus femoris) – 50 questions in 40 minutes

### Spot Checks:

- 75b Orthopedic Massage: Spot Check – Piriformis and Sacroiliac
  - **Bring your grading sheet for evaluation A: 97**
- 78b Orthopedic Massage: Spot Check – Low Back Pain
  - **Bring your grading sheet for evaluation A: 99**

### Assignments:

- 85a Orthopedic Massage: Outside Massages (2 due at the start of class)

### Preparation for upcoming classes:

- 72a Orthopedic Massage: Introduction
  - Packet J: 1-35.
- 72b Orthopedic Massage: Techniques and Effects
  - Packet J: 36-48.



# Classroom Rules

**Punctuality** - everybody's time is precious

- Be ready to learn at the start of class; we'll have you out of here on time
- Tardiness: arriving late, returning late after breaks, leaving during class, leaving early

**The following are not allowed:**

- Bare feet
- Side talking
- Lying down
- Inappropriate clothing
- Food or drink except water
- Phones that are visible in the classroom, bathrooms, or internship

*You will receive one verbal warning, then you'll have to leave the room.*



# 71a Sports Massage: Theory

Packet F - 109



# What is Sports Massage?

In Swedish, we have effleurage, petrissage, compression, friction, vibration, and tapotement.

Is sports massage a particular set of massage techniques?

In BMTs, we combine strokes like compression with joint mobilization?

Is sports massage a similar combination of certain strokes?

In deep tissue, we use slower pace, very specific anatomy, and forearms and fists to address tension in deeper layers of the body.

Is sports massage addressing a specific layer of the body?

What is Sports Massage?



# Applications of Massage in the Athletic Context

## **1. Restorative**

- a. Recovery
- b. Remedial
- c. Rehabilitation

## **2. Maintenance**

## **3. Event**



# 1. Restorative Massage

## **a. Recovery Massage**

- Uninjured athletes recovering from strenuous workout or competition
- Aims to improve circulation and promote relaxation



# 1. Restorative Massage

## **b. Remedial Massage**

- Athletes with minor or moderate injuries
- Aims to reduce or eliminate pain and dysfunction, restoring optimum level of physical, mental and emotional fitness



# 1. Restorative Massage

## c. Rehabilitation

- Athletes with severe injuries, or post-surgical (working as part of a team)
- Aims to:
  - Reduce pain, edema, spasm, tension, general anxiety, and stress
  - Increase circulation
  - Form healthy scar tissue
  - Break adhesions
  - Promote early mobility



## 2. Maintenance Massage

Massage on a regular basis to enhance recovery, and to maintain optimal health



### 3. Event Massage

See *Event Massage* Handout

Helping athletes prepare for or recover from a specific competitive event



# Sports Massage and Athletic Performance

Applied skillfully, sports massage increases performance potential in three ways:

1. Optimizes positive performance factors while minimizing negative ones
2. Decreases injury potential
3. Supports soft tissue healing



# 1. Optimizes positive performance factors while minimizing negative ones

## **a. Positive**

- Healthy muscle and connective tissue
- Normal range of motion
- High energy
- Fluid, pain-free movement
- Mental calm, alertness, and concentration

## **b. Negative**

- Dysfunctional muscle and connective tissue
- Restricted range of motion
- Low energy
- Staleness, pain, and anxiety



## 2. Decreases injury potential

Uncovers injuries at sub-clinical level before they can progress to the clinical stage



### 3. Supports soft tissue healing

- Massage encourages blood circulatory movement and relaxes muscles.
- Massage helps to deliver more oxygen and nutrients to soft tissues and organs.
- An increase of vital nutrients into the tissues accelerates the healing rate of injured areas.

A good sports massage combines both physical and psychological benefits.



### 3. Supports soft tissue healing (*continued*)

What is actually happening physiologically when a sports massage is delivered to the soft tissues?

- Increased blood circulation
- Maximized blood flow to aid the tissue healing process
- Lymphatic drainage
- Pain relief
- Lactic acid mobilization via flushing procedures
- Muscle tissue mobilization
- Muscle relaxation
- Increased muscle flexibility
- General relaxation
- Nervous system regulation (de-sensitization)
- Scar tissue mobilization



# Constellation of Effects

**Primary effects** lead to **Secondary effects** that optimize positive performance factors

**Primary Effects** – physiological and psychological changes in the athlete as a direct result of massage

**Secondary Effects** – performance-related outcomes resulting from the primary effects of massage



## Primary Effects – physiological and psychological changes in the athlete as a direct result of massage

1. **Improved fluid circulation** – circulatory massage delivers nutrients and carries away metabolic by products by increasing the local flow of cardiovascular and lymphatic fluids, thus restoring tissues to optimum condition
2. **Muscular relaxation** - both by decreasing pollution and by restoring the neuromuscular feedback loops to normal, massage enhances relaxation, reducing discomfort and further facilitating normal circulation
3. **Separation of muscle and connective tissue** – any sticking of tissues to one another will interfere with smooth motion and limit range of movement. Mechanical actions of lifting and broadening, as well as shearing forces applied across the parallel organization of muscle and tendon fibers (deep transverse friction) “unsticks” adhesions
4. **Formation of healthy scar tissue** – during the remodeling phase of soft tissue healing massage helps form a flexible scar



## Primary Effects – physiological and psychological changes in the athlete as a direct result of massage

### 5. Connective tissue mobilization

- Connective tissue in poor condition can limit overall movement
- Chronic stress and immobility can cause connective tissue to become rigid, inflexible
- Injury can result in adhesions within the connective tissue
- Adhesions are bindings of two anatomical surfaces (such as myofascia) that are normally separate
- Adhesions limit movement
- Kneading, deep friction and stretching can prevent and/or break down adhesions, enhancing movement capability



## Primary Effects – physiological and psychological changes in the athlete as a direct result of massage

### 6. Deactivation of trigger points

Definition:

- A focus of hyperirritability in tissue
- Locally tender, often within a taut band of muscle fibers
- Gives rise to referred pain and tenderness
- May cause distorted proprioception



# Primary Effects – physiological and psychological changes in the athlete as a direct result of massage

## 6. Deactivation of trigger points

Signs of trigger points include:

- Dull, aching, or referred pain
- Stiffness and weakness in the involved muscle
- Restricted range of motion
- Pain on contraction
- Pain on stretching



# Primary Effects – physiological and psychological changes in the athlete as a direct result of massage

## 6. Deactivation of trigger points

Techniques used to deactivate trigger points:

- Warming with effleurage, petrissage, and deep sliding movements
- Ischemic compression – direct digital pressure on the point with enough force to cause blanching of tissue or elicit the referred sensation
- Stretching should be applied after massage to reset the resting length



## Primary Effects – physiological and psychological changes in the athlete as a direct result of massage

- 7. **General relaxation** – activated by the parasympathetic response to massage
- 8. **Anxiety reduction** – part of the relaxation response



## Secondary Effects – performance-related outcomes resulting from the primary effects of massage

1. Greater energy
2. Freer movement at joints
3. Faster recovery
4. Pain reduction
5. Appropriate level of emotional stimulation
6. More positive outlook and motivation



# Event Massage

- Administered during events
  - Pre-event
  - Post-event
  - Inter-event
- In most cases, deep work is contraindicated
- The closer to the event time the massage occurs, the shorter the duration of the massage



# Event Massage

**Pre-Event** - focuses on increasing circulation to muscles , tendons and ligaments, and increasing flexibility

**Post-Event** - focuses on enhancing circulation to reduce soreness and shorten recovery time

**Inter-Event** – is essentially a combination of both of the above, clearing the effects of the previous effort and preparing for the one to come



# Event Massage

See *Event Massage* Handout

## **In 71b Sports Massage: Technique Demo and Practice – Pre-Event and Post-Event**

- A short sample routine that is suitable for any of the three event contexts
- This can be customized to fit any sport by emphasizing different muscle groups as appropriate
- If lubricant is used, begin and end each segment with centripetal effleurage at an upbeat tempo
- For pre-event massage, mobilization and stretching can be added at the end of each segment
- For inter-event and post-event massage there is too much risk of cramping especially of passively shortened antagonists



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