72a Orthopedic Massage: Introduction

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Class Outline

5 minutes	Attendance, Breath of Arrival, and Reminders
40 minutes	Lecture: Ortho introduction
15 minutes	Active study skills: J packet
60 minutes	Total

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Class Reminders

Quizzes:

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

Spot Checks:

- 75b Orthopedic Massage: Spot Check – Piriformis and Sacroiliac
- 78b Orthopedic Massage: Spot Check – Low Back Pain

Assignments:

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

Preparation for upcoming classes:

- 73a Orthopedic Massage: Introduction – Piriformis and Sacroiliac

  Trail Guide (Quadratus Femoris and Piriformis)

  Packet J: 49-54.
- 73b Orthopedic Massage: Technique Demo and Practice - Piriformis and Sacroiliac

  Packet J: 55-62.
- 74a MBLEx Prep – see syllabus for reviews topics

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.

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Packet J - 1

Modality definitions

Swedish Eff, Pet, Comp, Tap, Vib, BMTs, and passive stretches

Deep Tissue More pressure, slower work, focus areas

Sports Athletic performance, restore ROM, speed recovery, repair damage

Orthopedic Treating pain and injury of musculoskeletal tissues

Deep Massage The Lauterstein Method Consciously and simultaneously enhance energy flow and structural integrity

Levels of healthcare in massage therapy

Wellness massage Focuses on relaxation, stress reduction, and prevention

Clinical massage Addresses dysfunction and improves performance

Integrative massage

- Helps client to feel their structure and energy are integrated
- Therapist integrates modalities based on the client interview

Characteristics of wellness (non-specific) massage

- Aims to achieve relaxation and promote wellness
- Is non-invasive and almost totally safe
- Has very few contraindications
- Produces consistently beneficial outcomes

Overview of orthopedic intervention strategies

- Cryotherapy
- Thermotherapy
- **Myofascial release**
- **Muscle energy technique**
- Trigger point deactivation
- Reduction of fibrosis
- Enhancement of lymphatic and venous drainage
- Stretches and joint mobilizations

Myofascial release

Myofascial release Tangential force applied to the fascia without moving the treatment hands. Hold this until the client reports or the therapist feels a subtle sensation of tissue release.

Example:

TCL: myofascial release

- Perform while the client is seated during the interview
- Only for conditions with mild to moderate symptoms
- Begin to full the transverse carpal ligament
- Stop just beyond the scaphoid/trapezium and pisiform/hamate and hold it for 20 seconds
- Monitor for a subtle sensation of release that you feel or that the client reports

Muscle energy technique

Muscle energy technique (AKA: MET) A class of soft-tissue manipulation methods that incorporate precisely directed and controlled, client initiated, isometric and/or isotonic contractions, designed to improve musculoskeletal function and reduce pain.

Example:

Hamstring: active-assisted stretch after PIR

Muscle energy technique

Hamstring: active-assisted stretch after PIR

- Hip joint mobilizations
- Instruct the client:
  - "I'm going to stretch your hamstrings."
  - "Let me know when you begin to feel this stretch."
  - (Supporting the knee to avoid hyperextension, flex the leg until the client says that they can feel the stretch)
  - "Inhale and hold your breath. Using only 25% of your strength, press your thigh down toward the table against my resistance and I will count down from 5." (isometric contraction)
  - "Slowly release the contraction and the breath." (PIR)
  - "Now pull your thigh toward your chest until you feel a stretch. I'll follow you with my hands and support your leg."
  - "Relax your leg and I will hold it here for a stretch."
- Hold the stretch for three of your breath cycles
- Slowly release the stretch and repeat hip joint mobilizations

Repeat on the other side starting with "Gluteal: passive stretch".

Dysfunctions treated by orthopedic massage

- Trauma
- Over-use
- Chronic or acute pain
- Post-surgical care

Requirements of an orthopedic massage treatment

- **Cautions and Contraindications**
  - Pathology
  - Inflammation
  - Severe pain
- **Comprehensive, validated, and systematic approach**
- **Assessment and treatment of musculoskeletal (locomotor) pain or injury**

Requirements of an orthopedic massage treatment

- **Safety** ("First, do no harm", this is more important than effectiveness)
- **Enhancement of self-regulatory mechanisms of the body**
- **Reduction of the adaptive load**
  - Biomechanical
  - Biochemical
  - Psychosocial

Load

Biomechanical load Contribution of mechanical forces in the body such as pressure, friction, and shear. This can happen as a result of:

- Exercise
- Weight gain
- Traumatic injuries
- Manual therapies

Adaptive load Altered load due to a variety of stressors such as overuse or traumatic injury

Attributes or components of manually applied loading

- **Degree** of force employed (light, medium, firm, etc.)
- **Direction** of force applied (longitudinally, cross-fiber, etc.)
- **Frequency:** Constant or intermittent application of force (sustained of alternating)
- **Duration** of the application of force (brief, lengthy, pulsating)
- **Speed**: Rate at which the force is applied (rapidly, slowly, variably, harmonically)

Attributes or components of manually applied loading

- **Active or passive role** of the receiver (joint movement by therapist of client)
- **Tissues** involved (muscle, fascia, scar tissue, joint, etc.)
- **Properties** of tissues involved (muscles broaden when they contract, etc.)
- **Stage of dysfunction** of tissues involved (acute, chronic, sub-acute, etc.)
- **The intent of the massage therapist (**reduce tension in the superficial fascia, stimulate fibroblasts, etc.)

Reasons to learn to address orthopedic conditions

- 2nd most common reason for doctor visits
- 55% of occupational injuries are due to repetitive stress injuries
- Recreation and daily activities result in many soft-tissue injuries
- 60% of visits to massage therapists are for musculoskeletal conditions
- Soft-tissue therapies are effective and affordable options

The 4 components of orthopedic massage

1. Orthopedic assessment

2. Matching injury physiology with physiological effects of treatment

3. Treatment adaptability

4. Rehabilitation protocol

1. Orthopedic assessment

Assessment vs. Diagnosis

Assessment The systematic and ongoing process of gathering information to make informed decisions about treatment, and to track progress.

Diagnosis The identification and labeling of a disease, illness, or condition made by a licensed medical professional.

Note: You may discuss the tissues that you believe are involved and how, but never tell a client that they have a specific condition.

1. Orthopedic assessment

Information gained using orthopedic assessment

- Tissues involved (muscle, fascia, ligament, etc.)
- Type of tissue dysfunction (tear, hypertonicity, trigger point, etc.)
- Biomechanical forces involved (compression, tension, shear)
- Pain levels and symptoms (on a scale of 1-10, 10 being the most painful)
- Appropriateness of massage for the client (contraindications, cautions, goals)

1. Orthopedic assessment

Five basic tools of assessment

- **H**istory
- **O**bservation
- **P**alpation
- **R**ange of motion and resistance testing
- **S**pecial tests

  - Note: the acronym for this is HOPRS

2. Matching injury physiology with physiology of treatment

What is required to match techniques to an injury?

- Understanding how a technique interacts with tissues
  - **Example:** Deep transverse friction stimulates fibroblasts produce collagen or cartilage used to repair tissue
- Treatment choices should address the nature of the pain or injury
  - **Example:** Deactivating trigger points in the low back to reduce pain
- Using assessment and clinical reasoning to choose and adapt treatment methods or techniques on a case-by-case basis.
  - **Example:** Releasing the superficial fascia first to allow access to deeper tissues.

2. Matching injury physiology with physiology of treatment

What's an example of matching the treatment to the injury?

- Transverse friction of the transverse carpal ligament can be effective for relieving the entrapment of the median nerve found in carpal tunnel syndrome, but it would significantly exacerbate the symptoms.
- A treatment for carpal tunnel syndrome that matches the physiology of the injury would be deep longitudinal stripping to the wrist flexor muscle group. This decreases the accumulated tension in the muscle tendon units, which results in reduction of tenosynovitis that is aggravating the median nerve.

3. Treatment adaptability

What does treatment adaptability in orthopedic massage mean?

- Skill and experience with commonly used techniques
  - **Example:** Confidence and effectiveness with Swedish massage
- Not choosing a technique just because it is highly specialized or fancy
  - **Example:** "I'm going to use this fancy new technique on all of my clients."
- Clinical reasoning to adapt treatment when it's not working

3. Treatment adaptability

What is an example of treatment adaptability?

- What seems like an obvious case of carpal tunnel syndrome may not respond to a standard treatment protocol.
- Instead of the median nerve being compressed in the carpal tunnel, the brachial plexus may be compressed between the anterior and middle scalene muscles.

4. Rehabilitation Protocol

Rehabilitation protocol

Course of injury management to support recovery.

4 steps of the rehabilitation protocol

1. **Normalize soft-tissue dysfunction**
2. **Improve flexibility**
3. **Restore proper movement patterns**
4. **Strengthening and conditioning**

4. Rehabilitation Protocol

1. **Normalize soft-tissue dysfunction**
   - Apply knowledge of soft-tissue anatomy and physiology
   - Use massage, cryotherapy, and thermotherapy
   - Sometimes employ stretches and joint mobilizations

4. Rehabilitation Protocol

2. Improve flexibility

- Joint mobilizations
- Stretching

4. Rehabilitation Protocol

3. **Restore proper movement patterns**

   - Injury can result in dysfunctional compensating neuromuscular patterns.
   - This results in protective muscle spasms or biomechanical imbalance.
   - Restoring proper movement patterns usually follows normalization of soft-tissue and improvement of flexibility.
   - Postural corrections need to be repeated regularly and frequently.

4. Rehabilitation Protocol

4. **Strengthening and conditioning**

   - Exercise should not be introduced until the first 3 steps are accomplished.

   - It may be necessary to work alongside a health care professional licensed to provide supervised exercise programs.

Rehabilitation Protocol Summary

Rehabilitation protocol

Course of injury management to support recovery.

4 steps of the rehabilitation protocol

1. **Normalize soft-tissue dysfunction**
2. **Improve flexibility**
3. **Restore proper movement patterns**
4. **Strengthening and conditioning**

Self-Study, Packet J: 13-35

Tissues addressed using Orthopedic Massage, Why use thermal modalities as treatment aids?, Understanding Pain
– Packet J: 13-18

Heat Transfer, Heat Applications, and Heat Benefits, Precautions and Contraindications for Heat
– Packet J: 19-26

Cold Applications, Four Stages of Cryotherapy Treatment, Cold Benefits, Precautions and Contraindications for Cold
– Packet J: 27-32

Contrast Treatments, Topical Analgesics as Thermal Agents
– Packet J: 33-35

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