72a Orthopedic Massage: Introduction

72a Orthopedic Massage: Introduction

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

72a Orthopedic Massage: Introduction

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.

72a Orthopedic Massage: Introduction

Packet J - 1

What is Orthopedic Massage?

- A systematic and effective approach to treating pain and injuries
- Combines use of multiple modalities rather than one particular technique
- Therapists face unique challenges requiring creative thought and analysis – adaptability is KEY
- Has very few contraindications
- Produces consistently beneficial outcomes

Modality Definitions

Swedish: Eff, Pet, Comp, Tap, Vib, BMTs, and passive stretches. Supports circulation and over-all relaxation

Deep Tissue: More pressure, slower work, focus areas, effects deeper layers of tissue – "Slower is deeper!"

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

Orthopedic: Comprehensive system to address *orthopedic conditions* – pain and injuries affecting locomotive soft tissues

Deep Massage - The Lauterstein Method: Consciously and simultaneously enhances 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

Dysfunctions treated by Orthopedic Massage

- Trauma – injury rehab protocols
- Over-use – improper loading
- Chronic or acute pain
- Post-surgical care

Overview of Orthopedic Intervention Strategies

- Thermotherapy
- Cryotherapy
- **Myofascial Release (MFR)**
- **Muscle Energy Technique (MET)**
- Trigger point deactivation
- Reduction of fibrosis
- Enhancement of lymphatic and venous drainage
- Stretches and joint mobilizations

Myofascial Release (MFR)

Myofascial Release: Tangential (pulling) force applied to the fascia, in multiple directions over a single area, engaging the fascial tissues rather than the muscle fibers, hands stay still. Hold this until the client reports or the therapist feels a subtle sensation of tissue release.

Muscle Energy Technique

Muscle energy technique (AKA: MET) is 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.

MET has its origins in Osteopathic medicine.

The term "muscle energy technique" emphasizes the importance of using the client's own muscle contraction energy to enhance the stretching procedure.

Load

Biomechanical load Contribution of mechanical forces in and on the body such as pushing, pulling, rotation, bending, and shear.

This can happen as a result of:

- Exercise – improper form
- Gravity
- Weight gain or loss
- Traumatic injuries – compensation patterns
- Manual therapies

Adaptive load The overall "wear and tear" on the body overtime in response to repeated biomechanical, biochemical, psychosocial stress.

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 (cont.)

- **Safety** ("First, do no harm", this is more important than effectiveness)
- **Enhancement of self-regulatory mechanisms of the body**
  - CNS and PNS control of muscle tone
  - Tissue development due to mechanical load
  - Influence of the immune system to promote tissue repair
- **Reduction of the adaptive load**
  - Biomechanical – compression, tension, rotation, bending, shearing forces
  - Biochemical – chemical/cellular response to biomechanical load – influencing growth, tissue repair, and immune responses
  - Psychosocial – mental, emotional, and social demands of work or life

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 either the client or therapist)
- **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.)

Why Learn how to Address Orthopedic Conditions?

- 2nd most common reason for doctor visits
- 56% 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

- Use HOPRS method for a more comprehensive intake and assessment

2. Matching Injury Physiology with Physiological Effects of Treatment

- Knowledge of AOI's, muscle fiber and connective tissue orientation, and orthopedic conditions in regards to HOW and in WHAT way a technique will helps a particular dysfunction

3. Treatment adaptability

- Ability to adapt to client's feedback, tissue quality, and know when to refer to out.

4. Rehabilitation protocol

- Normalize soft-tissue dysfunction
- Improve flexibility
- Restore proper movement patterns
- Strengthening and conditioning

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 (cont.)

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 (cont.)

(Discussed further in class 83a)

Five basic tools of assessment – The HOPRS method

Never assume client's pain or discomfort is a matter of simple tension or stress

H = S of SOAP notes OPRS = O of SOAP notes

- **H**istory - Subjective section of SOAP notes
- **O**bservation – Objective analysis, body language, gait, posture
- **P**alpation – use of palpatory skills to confirm observations,
- **R**ange of motion and resistance testing – AROM, PROM, MRT's
- **S**pecial tests – Specific, sensitive, tests with repeatable outcomes

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 fibroblast 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 Protocols

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 continued

2. Improve flexibility

- Joint mobilizations
- Stretching

4. Rehabilitation Protocol (continued)

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 (continued)

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

72a Orthopedic Massage: Introduction