# **MT-1321: FUNCTIONAL ASSESSMENT IN MASSAGE THERAPY**

# **Cuyahoga Community College**

# Viewing: MT-1321 : Functional Assessment in Massage Therapy

Board of Trustees: January 2024

# Academic Term:

Fall 2024

Subject Code MT - Massage Therapy

#### Course Number:

1321

# Title:

Functional Assessment in Massage Therapy

# **Catalog Description:**

Recognize and assess common structural and postural deviations and common soft tissue injuries to muscles, tendons, joint capsules, ligaments, bursae, fascia, and nerves in order to determine appropriateness of massage therapy.

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Credit Hour(s):
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2
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Lecture Hour(s):
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Lab Hour(s):

2

# **Requisites**

#### **Prerequisite and Corequisite**

MT-1302 Massage Therapy I, and MT-1312 Applied Musculo-Skeletal Anatomy, or departmental approval.

# **Outcomes**

# Course Outcome(s):

Recognize and assess common structural and postural deviations and common soft tissue injury to muscle, tendon, joint capsule, ligament, bursa, fascia and nerve in order to determine appropriateness of massage therapy.

# Objective(s):

- 1. Distinguish between the terms diagnosis and assessment.
- 2. Demonstrate methods for the mechanical disruption of tissue.
- 3. Discuss neurological dysfunction as it relates to massage.
- 4. Discuss treatments for various soft tissues.

5.Define and demonstrate the H.O.P.S. method of soft tissue assessment which includes client history, observation, palpation & special testing procedures.

6. Discuss and define characteristic foot, ankle, and leg conditions.

7. Discuss and define common knee and thigh conditions.

8. Discuss and define common conditions of the hip and pelvis, lumbar and thoracic spine, cervical spine, shoulder, elbow, forearm, wrist, and hand.

# Methods of Evaluation:

- 1. Weekly quizzes
- 2. Written assignments
- 3. Oral presentations

- 4. Written examinations
- 5. Home work

#### **Course Content Outline:**

- 1. Diagnosis vs. assessment
  - a. Diagnosis: assigned name or label for an existing condition provided by a qualified health care provider
  - b. Assessment: ongoing process of information gathering that is used to help make clinical decisions
  - c. Functional assessment skills: Systematic problem solving methods that give the massage practitioner a sound basis for making educated decisions about treating with massage
- 2. Mechanical disruption of tissue
  - a. Compression: 2 structures pressed together
  - b. Tension: pulling apart of a structure
  - c. Torsion: stress applied in rotary or twisting fashion
  - d. Bending: combination of compression on one side and tension on other
  - e. Shear. Sliding force between two tissues
- 3. Neurological dysfunction
  - a. Types of pain indicating neurological involvement
    - i. searing
    - ii. burning
    - iii. shooting
    - iv. paresthesia (pins and needles)
    - v. numbness
  - b. Muscle weakness, atrophy, paralysis: impairment to neurological signals
  - c. Referred pain
  - d. Psychogenic pain
- 4. Contractile soft tissue: definitions, roles, dysfunctions
  - a. Muscle
    - i. roles
      - 1. agonist or prime mover
      - 2. fixator or stabilizer
      - 3. neutralizer
      - 4. antagonist
    - ii. types of contraction
      - 1. Isometric
      - 2. Isotonic
        - a. concentric
        - b. Eccentric
    - iii. dysfunctions
      - 1. tensile stress injury: strain
        - a. first degree or grade 1 strain: mild
        - b. second degree or grade 2 strain: moderate
        - c. third degree or grade 3 strain: severe (rupture)
      - 2. contusion (compression stress)
      - 3. spasm
      - 4. myofascial trigger points
  - b. Tendon
    - i. primary role: to transmit contractile force of muscle to bone in order to move bone
    - ii. dysfunctions
      - 1. tensile stress injuries
        - a. sudden forceful loading
        - b. chronic sub-maximal loading: tendonitis
      - 2. tenosynovitis
      - 3. tendon avulsion fracture
- 5. Inert soft tissue: definitions, roles, dysfunctions
  - a. Ligaments
    - i. primary role: to create stability around joints by connecting adjacent bones to each other and help prevent excessive movement in specific planes relative to that joint
    - ii. dysfunctions: tensile stress injury

- 1. first degree or grade 1 sprain: mild
- 2. second degree or grade 2 sprain: moderate
- 3. third degree or grade 3 sprain: severe or rupture
- b. Joint capsule
  - i. roles
    - 1. maintain integrity of joint
    - 2. guide specific joint movements
    - 3. prevent excessive motion
    - 4. house synovial fluid which reduces friction and wear on joints
    - ii. dysfunctions
      - 1. tensile stress tearing injuries
      - 2. adhesions and restrictions to movement in certain planes of motion
- c. Cartilage
  - i. types of cartilage and roles
    - 1. hyaline or articular cartilage which creates smooth gliding surface for two ends of bones
    - 2. fibrocartilage: provides additional cushioning from compressive forces
  - ii. dysfunctions
    - 1. compressive force injuries
    - 2. tensile stress injuries (medial meniscus of knee, usually)
- d. Fascia
  - i. role: complex soft-tissue webbing which holds us all together
  - ii. dysfunctions
    - tensile stress injuries
    - 2. response to prolonged immobilization: structural adaptation to shortening
- e. Nerve
  - i. role: vast and complex communication and processing system of afferent and efferent signals
  - ii. dysfunctions:
    - 1. compressive force injury
      - a. acute
      - b. chronic
    - 2. tensile stress injury: most often associated with sudden elongating of a nerve trunk
- f. Bursa
  - i. role: fluid filled sacs that provide cushioning and reduce friction in joints and areas of high friction
  - ii. dysfunctions
    - 1. compressive force injuries: acute or chronic
    - 2. overuse injury producing painful arcs due to bursitis
- 6. The H.O.P.S. method of soft-tissue assessment
  - a. History
    - i. what is the nature of the problem
    - ii. where is pain felt, exactly
    - iii. how did pain arise
    - iv. duration of problem
    - v. descriptors for nature of pain
    - vi. activities that aggravate or lessen pain
    - vii. patient's occupation or daily activity
    - viii. previous occurrence; if so, how resolved
  - b. Observation
  - c. Palpation
  - d. Special orthopedic tests
    - i. active range of motion tests
      - 1. description
      - 2. important points to watch for
      - 3. method of application
    - ii. passive range of motion tests
      - 1. description
      - 2. important points to watch for
      - 3. method of application
    - iii. manual resistive tests

- 1. description
- 2. important points to watch for
- 3. method of application
- iv. special regional orthopedic tests
- 7. Foot, ankle, and leg conditions: characteristics, assessment, and suggestions for treatment
  - a. Structural and postural deviations
    - i. calcaneal varus
    - ii. calcaneal valgus
    - iii. splayed foot (fallen metatarsal arch)
    - iv. pes planus (fallen longitudinal arch)
    - v. pes cavus (high arch)
    - vi. Morton's foot
    - vii. hallux valgus
  - b. Common injury conditions
    - i. bunion and bunionette
    - ii. exostosis (bone spur)
    - iii. plantar fasciitis
    - iv. Morton's neuroma
    - v. tarsal tunnel syndrome
    - vi. retrocalcaneal bursitis
    - vii. Achilles tendinitis
    - viii. lateral (inversion) ankle sprains
    - ix. medial (eversion) ankle sprains
    - x. shin splints
      - 1. anterior lateral
      - 2. posterior medial
    - xi. anterior compartment syndrome
    - xii. muscle cramping
    - xiii. stress fracture
    - xiv. dorsiflexor tenosynovitis (lace bite)
- 8. Knee and thigh conditions
  - a. Structural and postural deviations
    - i. genu valgum ("knock knees")
    - ii. genu varum ("bow legs")
    - iii. genu recurvatum
    - iv. excessive Q (quadriceps) angle
  - b. Common injury conditions
    - i. anterior cruciate ligament sprain
    - ii. posterior cruciate ligament sprain
    - iii. medial collateral ligament sprain
    - iv. lateral collateral ligament sprain
    - v. meniscal injury
    - vi. patellofemoral pain syndrome
    - vii. chondromalacia, patella
    - viii. patellar tendinitis
    - ix. Osgood-Schlatter's disease
    - x. prepatellar bursitis
  - xi. iliotibial band friction syndrome
- 9. Hip and pelvis conditions
  - a. Structural and postural deviations
    - i. anterior pelvic tilt
    - ii. posterior pelvic tilt
    - iii. lateral pelvic
  - b. Common injury conditions
    - i. trochanteric bursitis
    - ii. sacroiliac joint dysfunction
    - iii. hip pointer
    - iv. piriformis syndrome

- 10. Lumbar and thoracic spine conditions
  - a. Structural and postural deviations
    - i. lordosis
    - ii. kyphosis
    - iii. scoliosis
  - b. Common injury conditions
    - i. lumbar disc pathology
    - ii. spondylolysis
    - iii. spondylolisthesis
    - iv. facet joint irritation
- 11. Cervical spine conditions
  - a. Structural and postural deviations
    - i. forward head posture
    - ii. retracted head posture (military neck)
  - b. Common injury conditions
    - i. thoracic outlet syndrome
    - ii. whiplash
    - iii. torticollis
  - iv. cervical disc pathology
- 12. Shoulder conditions
  - a. Structural and postural deviations
    - i. elevated shoulder
    - ii. retracted "military" shoulders
    - iii. forward "slumped" shoulder
    - b. Common injury conditions
      - i. shoulder separation
      - ii. rotator cuff tear
      - iii. shoulder impingement syndrome
      - iv. bicipital tendonitis
      - v. pectoralis minor syndrome
      - vi. subacromial bursitis
      - vii. glenohumeral dislocation/subluxation
    - viii. adhesive capsulitis (frozen shoulder)
- 13. Elbow, forearm, wrist, and hand conditions
  - a. Common injury conditions
    - i. olecranon bursitis
    - ii. lateral humeral epicondylitis (tennis elbow)
    - iii. medial humeral epicondylitis (golfer's elbow)
    - iv. carpal tunnel syndrome
    - v. DeQuervain's tenosynovitis

# Resources

Lowe, Whitney W. Orthopedic Assessment in Massage Therapy. 3rd. Whitney Lowe, Daviau Scott Publishers, 2014.

Biel, Andrew. Trail Guide to the Body. 6th ed. Books of Discovery, 2019.

Biel, Andrew. Trail Guide to Movement. 2nd ed. Books of Discovery, 2019.

Archer, Pat & Nelson, Archer. Applied Anatomy & Physiology for Manual Therapists. 2nd ed. Books of Discovery, 2020.

#### **Resources Other**

Biel, Andrew. Trail Guide to the Body. 6<sup>th</sup> edition, Discovery Of Books, 2019

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