Muscle Energy Techniques Home Study Course

8 CE Hours Online Study Guide

Presented by the:

Center for Massage Therapy Continuing Education

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It is the responsibility of the practitioner to determine the appropriateness of the principles presented in terms within the scope of practice. This information is in no way meant to diagnose or treat medical conditions. This course is not meant to teach advanced hands-on massage techniques. Written medical opinions are always the best way to resolve any questions regarding contra-indications to massage therapy and/or muscle energy techniques (MET).

PLEASE CAREFULLY READ THE DIRECTIONS ON PAGE 2

Instructions for the Muscle Energy Techniques home study course

Thank you for investing in the Muscle Energy Techniques home study course, an 8 CE hour course designed to further your knowledge in the principles and practice of muscle energy techniques and its related theories. This guide will contain all of the instructions you will need to complete this course. This is an 8 CE hour course, so that means it should take you approximately 8 hours to read the textbook, watch the online videos, and complete the multiple choice exam and course evaluation.

The following are steps to follow in completing this course:

- 1. Read the text, access the videos by scanning the QR codes in the textbook, and review the exam.
- 2. This course has 19 video clips with approximately 1 hour and 30 minutes of videos which demonstrate assessment and muscle energy techniques. To access the online videos, scan the QR codes located in chapters 5-18.
- 3. Access the online examination in your account at www.massagetherapyceu.com.
- 4. Complete your examination and download/print your certificate. The exam is open book and there is no time limit for completion.

You must pass the exam with a 70% or better to pass this home study course. Feel free to review the textbook and online videos while taking the exam. You are allowed to access and take the exam up to 3 times if needed. There is no time limit when taking the exam. This course uses the text *Muscle Energy Techniques*, by John Gibbons. There are no trick questions on the exam. All of the answers are clearly found in the text or the videos.

It is advised to answer the exam questions in the study guide before testing online. That way, when you are testing you do not have go back and forth through the online exam.

Good luck as you complete this course. If you have any question please feel free to contact us at 866-784-5940, 712-490-8245 or by email at info@massagetherapyceu.com. Most state boards require that you keep your "proof of completion" certificates for at least four years in case of audit. Thank you for taking our Muscle Energy Techniques home study course.

Muscle Energy Techniques Exam

Chapter 1

- 1. Skeletal (somatic or voluntary) muscles make up approximately ______ of the total human body weight.
 - A. 20%
 - B. 30%
 - C. 40%
 - D. 50%
- 2. Within skeletal muscles, which of the following are the two specialized types of nerve receptors that can sense tension (length or stretch)?
 - A. Myofibrils and motor end unit
 - B. Muscle spindles and Golgi tendon organs
 - C. Actin and myosin
 - D. Endomysium and fasciculi
- 3. What is an isometric contraction?
 - A. When there is increased tension in a muscle, but its length remains unchanged
 - B. When the muscle attachments move closer together causing movement at the joint
 - C. When a contraction which produces movement is assisted by someone else
 - D. When the muscle fibers 'pay out' in a controlled manner to slow down movements

- 4. All of the following are objectives of Muscle Energy Techniques (METs), EXCEPT:
 - A. Restoring normal tone in hypertonic muscles
 - B. Strengthening weak muscles
 - C. Increasing joint mobility
 - D. Decreasing musculoskeletal function
- 5. The point of bind, or restriction barrier, occurs when:
 - A. Resistance is first felt by the palpating hands/fingers of the therapist
 - B. Resistance is felt and the end point of a passive stretch
 - C. Resistance is last felt by the palpating hands/fingers of the therapist
 - D. The client's muscle fibers contract against the palpating hands/fingers of the therapist
- 6. In the MET procedure, the patient is asked to contract the muscle to be treated using approximately _____ of the muscle's strength capability against a resistance that is applied by the therapist.
 - A. 5-10%
 - B. 10-20%
 - C. 20-30%
 - D. 40-50%

- 7. All of the following are functions of posture EXCEPT:
 - A. Maintain the alignment of the body's segments in any position: supine, prone, sitting, all fours, and standing
 - B. Anticipate change to allow engagement in voluntary, goal-directed movements, such as reaching and stepping
 - C. React to unexpected perturbations or disturbances in balance
 - D. Producing increased strain on various parts of the body and supporting structures
- 8. Which of the following is a predominantly phasic muscle?
 - A. Pectorals
 - B. Hamstrings
 - C. Glutes
 - D. Piriformis
- 9. Which of the following areas is tightened in the upper crossed syndrome (UCS)?
 - A. Upper trapezius and levator scapulae
 - B. Rhomboids and serratus anterior
 - C. Middle and lower trapezius
 - D. Deep cervical flexors

Chapter 4

- 10. Which of the following are the main ligamentous structures that influence force closure?
 - A. Sacrotuberous ligament and the long ventral sacroiliac ligament
 - B. Sacrospinous ligament and the long dorsal sacroiliac ligament
 - C. Sacrotuberous ligament and the long dorsal sacroiliac ligament
 - D. Posterior sacroiliac ligament and the long ventral sacroiliac ligament
- 11. The outer unit consists of all of the following systems EXCEPT:
 - A. Posterior (deep) longitudinal
 - B. Medial
 - C. Anterior oblique
 - D. Posterior oblique

- 12. In the assessment of the trapezius muscle, which of the following is considered normal range of motion?
 - A. 25 degrees
 - B. 45 degrees
 - C. 50 degrees
 - D. 60 degrees
- 13. In applying MET treatment to the right upper trapezius, if there is no rotation of the cervical spine, this will target the:
 - A. Anterior fibers
 - B. Middle fibers
 - C. Posterior fibers
 - D. All of the above

- 14. In the MET treatment of the right sternocleidomastoid (SCM), which of the following is the correct client positioning?
 - A. Prone, a pillow under the pectorals, and the cervical spine into full left rotation
 - B. Supine, a pillow under the shoulder blades, and the cervical spine into full right rotation
 - C. Supine, a pillow under the shoulder blades, and the cervical spine into full left rotation
 - D. Prone, a pillow under the pectorals, and the cervical spine into full right rotation
- 15. When treating the scalenes, if the vertebral artery test shows signs of vertebral artery compression, which of the following must you avoid?
 - A. Taking the cervical spine into a flexed and rotated position
 - B. Taking the cervical spine into a flexed and elevated position
 - C. Taking the cervical spine into an extended and elevated position
 - D. Taking the cervical spine into an extended and rotated position

Chapter 7

- 16. The ______ is the only muscle that connects from the anterior aspect of the thorax to the humerus.
 - A. Pectoralis major
 - B. Pectoralis minor
 - C. Subclavius
 - D. Intercostals
- 17. Which of the following is the insertion of the pectoralis minor?
 - A. Radial tuberosity
 - B. Upper shaft of humerus
 - C. Coracoid process of scapula
 - D. Medial aspect of humerus
- 18. In the MET treatment of pectoralis minor, where is the therapist's left hand placed?
 - A. On top of the patient's right shoulder blade
 - B. Under the patient's left shoulder blade
 - C. Under the patient's right humerus, half way down to the elbow
 - D. Under the patient's right shoulder blade

Chapter 8

- 19. Which of the following tests is used to assess the tightness of the latissimus dorsi?
 - A. Leg elevation test
 - B. Arm elevation test
 - C. Arm adduction test
 - D. Arm abduction test

- 20. Which of the following muscles comprise the rotator cuff?
 - A. Supraspinatus, infraspinatus, teres major, subscapularis
 - B. Supraspinatus, infraspinatus, teres minor, subclavius
 - C. Rhomboids, infraspinatus, teres minor, subscapularis
 - D. Supraspinatus, infraspinatus, teres minor, subscapularis

- 21. In the PIR method of MET treatment of subscapularis, which of the following is the correct patient action?
 - A. Contraction of the subscapularis by internal rotation of the shoulder
 - B. Contraction of the subscapularis by external rotation of the shoulder
 - C. Contraction of the subscapularis by adduction of the shoulder
 - D. Contraction of the subscapularis by abduction of the shoulder
- 22. Trigger points located within the infraspinatus commonly refer pain to:
 - A. The posterior part of the shoulder
 - B. The anterior part of the shoulder
 - C. The trapezius muscle
 - D. The lower back and sacrum
- 23. Ideally positioned, the scapula's medial (vertebral) border is located approximately _____ from the spinous processes of the thoracic spine.
 - A. 1 inch (2.5 cm)
 - B. 2 inches (5 cm)
 - C. 3 inches (7.5 cm)
 - D. 4 inches (10 cm)

- 24. What is the action of the gastrocnemius?
 - A. Plantar flexes (points) foot at ankle joint
 - B. Assists in flexion of knee joint
 - C. A main propelling force in walking and running
 - D. All of the above
- 25. In the MET treatment of soleus, from the point of bind, the patient is asked to ______ the ankle to activate the contraction of the soleus muscle.
 - A. Dorsiflex
 - B. Rotate
 - C. Plantar flex
 - D. Invert

- 26. Which of the following tests is used to perform the general assessment of the hamstrings?
 - A. Hip flexion test
 - B. Hip extension test
 - C. Hip adduction test
 - D. Hip abduction test
- 27. To specifically identify the biceps femoris as the short tissue, which of the following does the therapist apply?
 - A. An external rotation and adduction while the patient's leg is taken into passive flexion
 - B. An internal rotation and abduction while the patient's leg is taken into passive flexion
 - C. An internal rotation and adduction while the patient's leg is taken into passive flexion
 - D. An external rotation and abduction while the patient's leg is taken into passive flexion

- 28. In the MET treatment of the TFL and ITB, the patient is asked to:
 - A. Adduct their right leg against a resistance applied by the therapist for 10 seconds
 - B. Abduct their right leg against a resistance applied by the therapist for 10 seconds
 - C. Internally rotate their right leg against a resistance applied by the therapist for 20 seconds
 - D. Externally rotate their right leg against a resistance applied by the therapist for 20 seconds

Chapter 13

- 29. All of the following are muscles in the adductor group EXCEPT:
 - A. Pectineus
 - B. Adductor brevis and longus
 - C. Gracilis
 - D. Tensor fasciae latae

Chapter 14

- 30. In the modified Thomas test assessment of the iliopsoas, which of the following ROM is commonly accepted to be normal?
 - A. 40-45 degrees
 - B. 30-35 degrees
 - C. 20-25 degrees
 - D. 10-15 degrees
- 31. In the MET treatment of the rectus femoris, which of the following is the correct patient position?
 - A. Seated
 - B. Sidelying
 - C. Supine
 - D. Prone

- 32. In the observation assessment of the position of the hip, if the patient's left foot appears to be further away from the midline than the right foot, this possibly relates to:
 - A. A shortened piriformis on the left side
 - B. A shortened piriformis on the right side
 - C. A lengthened piriformis on the left side
 - D. A lengthened piriformis on the right side
- 33. It is considered that after 60 degrees of hip flexion, the piriformis changes:
 - A. From an internal rotator to an external rotator
 - B. From an external rotator to an internal rotator
 - C. From an adductor to an abductor
 - D. From an abductor to an adductor

- 34. In the alternative METs for the quadratus lumborum (QL), in which direction is the therapist providing resistance as the patient abducts their left leg?
 - A. Up or abduction
 - B. Forward or flexion
 - C. Down or adduction
 - D. Backward or extension
- 35. In the assessment of erector spinae, the seated test described will also identify if there is tightness in all of the following muscles EXCEPT:
 - A. Hamstrings
 - B. Gastrocnemius
 - C. Soleus
 - D. Abdominals

Chapter 17

- 36. In the self-lengthening protocol for the shoulder complex, what does the 5-5-5 methodology refer to?
 - A. Contract the muscle for 5 seconds, relax for 5 seconds, and repeat 5 times
 - B. Contract the muscle for 5 seconds, then lengthen and hold for 5 seconds, and repeat 5 times
 - C. Lengthen the muscle for 5 seconds, then shorten and hold for 5 seconds, and repeat 5 times
 - D. Contract the muscle for 5 seconds, then lengthen and hold for 5 seconds, and rest 5 seconds

- 37. When the gluteus maximus (Gmax) is weak or misfiring:
 - A. The knee can be seen to deviate medially and the pelvis can also be observed to tip laterally
 - B. The ankle can be seen to deviate medially and the knee can also be observed to tip laterally
 - C. The knee can be seen to deviate laterally and the pelvis can also be observed to tip medially
 - D. The foot can be seen to deviate laterally and the knee can also be observed to deviate laterally
- 38. In the hip extension firing pattern test, sequence 2, where are the therapist's thumbs placed?
 - A. On the patient's left hamstrings
 - B. On the patient's left Gmax
 - C. On the patient's erector spinae
 - D. On the patient's quadriceps
- 39. Weakness of the gluteus medius (Gmed) allows the potential for which of the following?
 - A. Trendelenburg or compensatory Trendelenburg pattern of gait
 - B. Hypertonicity in the ipsilateral (same side) piriformis and TFL muscles and ITB
 - C. Excessive pronation of the subtalar joint (STI)
 - D. All of the above

- 40. In the assessment of serratus anterior, the wall push-up test specifically looks at:
 - A. The position of the scapula as it rotates around the rib cage1
 - B. The position of the clavicle as it rotates around the rib cage
 - C. The position of the rhomboids as they contract and relax
 - D. The position of the posterior ribs as the scapula rotates around the rib cage

This completes the Muscle Energy Techniques exam.