Medical Massage Therapy Home Study Course

18 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. Always have your client consult a physician for diagnosis before treating any medical condition. Written medical opinions are always the best way to resolve any questions regarding contra-indications to massage therapy.

Instructions for the Medical Massage Therapy home study course

Thank you for investing in the Medical Massage Therapy home study course, an 18 CE hour course designed introduce you to performing outcome-based massage on specific conditions that a client may have. This guide will contain all of the instructions you will need to complete this course. This is an 18 CE hour course, so that means it should take you approximately 18 hours to read through the textbook and complete the multiple choice exam and course evaluation.

The following are steps to follow in completing this course:

- 1. Read the instructions and review the text and exam.
- 2. Access the online examination in your account. To do that, go to <u>www.massagetherapyceu.com</u>. Click on the student login link on the top left and enter your information. Once logged in you will see you course in your member area.
- **3.** Complete your examination and 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. You are allowed to access and take the exam up to 3 times if needed. There is no time limit when taking the exam and you can save your answers and return at a later date if needed. Feel free to review your textbook while taking the test. This course uses the text *Condition-Specific Massage Therapy*, by Celia Bucci. There are no trick questions on the exam. All of the answers are clearly found in the text. It is advised to answer the exam questions in the study guide before testing online.

Good luck as you complete this course. If you have any questions please feel free to contact us at 866-784-5940, 712-490-8245 or 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 Medical Massage Therapy home study course.

Medical Massage Therapy Exam

Chapter 1

- 1. _____ is the mediator in the push and pull between anatomical structures and the forces that act upon them.
 - a) Biomechanics
 - b) Muscle tension
 - c) Range of motion
 - d) The antagonist
- 2. Antagonists are:
 - a) Muscles that oppose agonists to ensure that movement is fluid
 - b) Muscles that compliment agonists to ensure that movement is instantaneous
 - c) Muscles that initiate a reflex response
 - d) Muscles that oppose agonists to ensure that movement is jerky
- 3. In _____, the client moves the joint through its range by consciously contracting the muscles.
 - a) Passive ROM
 - b) Resisted ROM
 - c) Active ROM
 - d) Stretching

4. ______ is/are objective and measurable by the therapist.

- a) Pain
- b) Intensity
- c) Signs
- d) Symptoms
- 5. Working systemically before treating locally describes the principle:
 - a) General-specific-general
 - b) Superficial-deep-superficial
 - c) Proximal-distal-proximal
 - d) Peripheral-central-peripheral
- 6. Dilation of blood vessels following the release of a compressive force to a previously ischemic area is an example of a ______ effect.
 - a) Homeostatic
 - b) Mechanical
 - c) Reflexive
 - d) Chemical

- 7. When performing post-isometric relaxation, begin with the target muscle(s):
 - a) In a full stretch
 - b) Contracting against resistance
 - c) In a comfortably shortened position
 - d) In a comfortably lengthened position

- 8. Fascial fibers form dense, irregular connective tissue with a/an ______ arrangement.
 - a) Horizontal
 - b) Vertical
 - c) Unidirectional
 - d) Multidirectional
- 9. _____ gives fascia a fluid character.
 - a) Ground substance
 - b) Collagen
 - c) Integrins
 - d) Compression
- 10. When stretched abruptly or for an extended period, fascia ______, actively contracting against the stretch.
 - a) Decreases resistance
 - b) Increases resistance
 - c) Loosens
 - d) Thickens
- 11. ______describes the character of a structure in which the integrity depends on balanced tension across its rigid parts.
 - a) Dysfunction
 - b) Strain
 - c) Tensegrity
 - d) Viscosity

12. Where muscles are short and tight, the myofascia is likely to:

- a) Be bulky, fluid filled, and adhered to the affected muscles
- b) Weave itself around the affected joint
- c) Stretched, flat, dehydrated, and adhered in a strap-like form
- d) Support opposing ranges of motion
- 13. ______is/are a good assessment tool for deeper myofascial restrictions and an excellent tool for releasing them.
 - a) Tapotement
 - b) Skin rolling
 - c) Stretching
 - d) Slow, cross-fiber strokes

- 14. During your assessment and treatment, the client may report feeling sensations of:
 - a) Hunger or thirst
 - b) Numbness and tingling
 - c) Restlessness and anxiety
 - d) Burning or itching

- 15. Trigger points refer pain to a location distant from the nodule:
 - a) In predictable patterns
 - b) In random patterns
 - c) That is always superior to the nodule
 - d) That is always inferior to the nodule
- 16. Dysfunction produces ______ in the affected muscle fibers, creating the knot we call a trigger point.
 - a) Dehydration
 - b) A sustained contraction
 - c) Fascial adhesions
 - d) Bleeding

17. A latent trigger point:

- a) Causes symptoms with normal activities of daily living and at rest
- b) Is painful only on compression
- c) Is deactivated when a primary trigger point is deactivated
- d) Causes more pain in big muscles than small ones
- 18. Place the muscle in a _____ position when palpating for trigger points.
 - a) Fully stretched and abnormally lengthened
 - b) Fully contracted and comfortably shortened
 - c) Fully relaxed and comfortably lengthened
 - d) Fully relaxed and comfortably shortened
- 19. If the trigger point is ______, applying pressure to it will cause a sensation that resembles the pain a client experiences during activities of daily living.
 - a) A satellite trigger point
 - b) A latent trigger point
 - c) An active trigger point
 - d) In the antagonist of the affected muscle
- 20. As the trigger point is deactivated, _____ will also diminish.
 - a) The referral pain
 - b) Deep breathing
 - c) Neuromuscular function
 - d) Flexion

- 21. The two kyphotic curves of the spine, _____, arc posteriorly.
 - a) Thoracic and pelvic
 - b) Upper cross and lower cross
 - c) Cervical and lumbar
 - d) Internal and external
- 22. _____ is caused primarily by soft tissue dysfunction and postural deviations that result from an injury or activities of daily living.
 - a) Functional postural imbalance
 - b) Structural postural imbalance
 - c) Neuromuscular postural imbalance
 - d) Degenerative postural imbalance
- 23. The most common symptom of developing thoracic hyperkyphosis is:
 - a) Internally rotated shoulders and pain along the anterior neck
 - b) Pain between the scapulae and along the posterior neck
 - c) Pain in the chest and along the anterior neck
 - d) Protracted scapulae and pain in the middle to low back
- 24. With hyperkyphosis, active external rotation of the shoulder may be restricted due to all but which of the following?
 - a) Adhesions in internal rotators of the shoulder
 - b) Hypertonic internal rotators of the shoulder
 - c) Protraction of the scapula
 - d) Hypertonic cervical extensors
- 25. With internally rotated shoulders, all but which of the following structures are likely to be lengthened?
 - a) Posterior deltoid
 - b) infraspinatus
 - c) Brachioradialis
 - d) Teres minor
- 26. During treatment of hyperkyphosis, when treating the deeper thoracic erector spinae,

_ strokes may help separate adhered tissues.

- a) Effleurage
- b) Cross fiber
- c) Compression
- d) Tapotement

- 27. Tension headaches and migraines are commonly categorized as:
 - a) Primary headaches
 - b) Secondary headaches
 - c) Cranial neuralgias
 - d) Cluster headaches
- 28. With tension headaches, hypertonicity and trigger points are often found in all but which of the following?
 - a) The cervical extensors
 - b) Splenius capitus
 - c) Middle trapezius
 - d) Suboccipitals
- 29. Which of the following is not a common deviation found in tension headache sufferers?
 - a) Head-forward posture
 - b) Hyperkyphosis
 - c) Temporomandibular joint dysfunction
 - d) Cervical hyperflexion
- 30. If weakness, heavy extremities, speech difficulty, or vision changes accompanies a headache:
 - a) Reduce the treatment time to 30 minutes
 - b) Reschedule the treatment for the next day
 - c) Refer the client to emergency medical attention
 - d) Recommend that the client see their health care provider within the next week or so
- 31. With tension headaches, resisted flexion of the neck may reveal:
 - a) Trigger points in the posterior neck muscles
 - b) Weakness in the posterior neck muscles
 - c) Trigger points in the anterior neck muscles
 - d) Weakness in the anterior neck muscles
- 32. If deep palpation of a trigger point reproduces symptoms:
 - a) Refer the client to their health care provider
 - b) Ask the client to breathe deeply during the procedure
 - c) Discontinue treatment and reschedule
 - d) Cover the client's eyes
- 33. Pulling the hair very gently may be useful in:
 - a) Decreasing circulation and reducing tension in the scalp
 - b) Increasing circulation and reducing tension in the scalp
 - c) Decreasing circulation and increasing tension in the scalp
 - d) Increasing circulation and increasing tension in the scalp

- 34. The thoracic outlet is the space between:
 - a) The anterior medial neck and the posterior neck
 - b) The posterior lateral neck and the scapula
 - c) The anterior lateral neck and the axilla
 - d) The posterior medial neck and the axilla
- 35. Double crush refers to:
 - a) Compression of a peripheral nerve and a vein or artery
 - b) Compression at more than one site along a peripheral nerve
 - c) Compression at more than one site along a vein or artery
 - d) Compression of two peripheral nerves or two veins or arteries
- 36. Signs and symptoms of neurogenic thoracic outlet syndrome may include all but which of the following?
 - a) Pale or bluish skin of the hand
 - b) Pain and burning in the shoulder and arm
 - c) Numbness and tingling in the arm or hand
 - d) Loss of fine motor skills
- 37. The main difference between hyperkyphosis and thoracic outlet syndrome is:
 - a) Hyperkyphosis involves the head-forward posture
 - b) Thoracic outlet syndrome involves symptoms related to the compression of nerves and vessels
 - c) Hyperkyphosis involves numbness and tingling in the arm and hand
 - d) Thoracic outlet syndrome presents bilaterally
- 38. Neurogenic thoracic outlet syndrome is a:
 - a) Central neuropathy
 - b) Peripheral neuropathy
 - c) Congenital neuropathy
 - d) Primary neuropathy
- 39. In your client assessment of thoracic outlet syndrome, if you suspect an underlying condition that requires medical attention:
 - a) Reschedule the massage until symptoms have subsided
 - b) Reduce your pressure and the duration of treatment
 - c) Treat only the unaffected side
 - d) Refer the client to a health care provider
- 40. Which of the following tests assesses the compression of the neurovascular bundle by the scalenes?
 - a) Roos elevated arm stress test
 - b) Phalen's test
 - c) Adson's test
 - d) Costoclavicular maneuver

- 41. Which of the following are stretching options for stretching the scalenes?
 - a) Contralateral lateral flexion and ipsilateral rotation
 - b) Contralateral medial flexion and ipsilateral rotation
 - c) Contralateral lateral flexion and ipsilateral flexion
 - d) Contralateral medial flexion and ipsilateral extension

- 42. Which of the following muscles is not innervated by the median nerve?
 - a) Flexor carpi ulnaris
 - b) Flexor digitorum superficialis
 - c) Flexor digitorum profundus
 - d) Palmaris longus
- 43. With ______, the muscles become weaker, making is difficult to grasp items like a cup or a pen or to perform fine motor skills.
 - a) Movement
 - b) Treatment
 - c) Reduced innervation
 - d) Increased innervation
- 44. When addressing carpal tunnel syndrome, friction should be avoided in all but which of the following situations?
 - a) If the client has a systemic inflammatory condition such as rheumatoid arthritis or osteoarthritis
 - b) If the health of the underlying tissues is compromised
 - c) If the client is taking an anti-diuretic medication
 - d) If the client is taking an anti-inflammatory medication
- 45. To test for compression of the median nerve at the carpal tunnel using Phalen's maneuver, apply:
 - a) Full, active flexion of the wrist
 - b) Full, active extension of the wrist
 - c) Full, passive flexion of the wrist
 - d) Full, passive extension of the wrist
- 46. In your palpation assessment of carpal tunnel syndrome, at the forearm, you may find the:
 - a) Wrist flexors short and hypertonic and the extensors weak and taut
 - b) Wrist extensors short and hypertonic and the flexors weak and taut
 - c) The thenar muscles hypertonic and the wrist flexors short and taut
 - d) The thenar muscles short and taut and the wrist extensors hypertonic

- 47. Self-care activities that you can encourage clients to do include all but which of the following?
 - a) Encourage the client to take regular breaks from repetitive actions
 - b) Encourage the client to continue activities that irritate the condition
 - c) Demonstrate gentle self-massage to keep hypertonicity at bay between treatments
 - d) Instruct the client on proper posture to keep pressure off the weakened joints

48. Which of the following characteristics is not commonly associated with hyperlordosis?

- a) Short lumbar extensors
- b) Short hamstrings
- c) Increased lumbar lordotic curve
- d) Anterior pelvic tilt
- 49. _____ describes imbalance and dysfunction of the agonists and antagonists that move and support the pelvis.
 - a) Structural postural imbalance
 - b) Head-forward posture
 - c) Lower cross syndrome
 - d) Upper cross syndrome
- 50. Which of the following is an endangerment site when treating hyperlordosis?
 - a) Femoral artery
 - b) Sciatic nerve
 - c) Brachial plexus
 - d) Iliacus
- 51. Active ______ of the hip may be reduced when iliopsoas and rectus femoris are short, adhered and contain trigger points.
 - a) Flexion
 - b) Extension
 - c) Rotation
 - d) Abduction
- 52. The referral pattern for trigger points in which muscle produces low back pain?
 - a) Rectus femoris
 - b) Tensor fascia latae
 - c) Iliopsoas
 - d) Biceps femoris
- 53. Which of the following are considered other possible conditions that may develop with hyperlordosis (and can be treated, if needed, at the end of the session)?
 - a) External or internal rotation of the hip
 - b) Flat feet
 - c) Hyperkyphosis
 - d) All of the above

- 54. Muscles innervated by the sciatic nerve include all but which of the following?
 - a) Semitendinosus
 - b) Biceps femoris
 - c) Rectus femoris
 - d) Semimembranosis
- 55. When the sciatic nerve is involved, radiating pain, numbness, or tingling is felt:
 - a) Along the lateral thigh, lateral calf, and heel
 - b) Along the posterior thigh, calf, and foot
 - c) Along the posterior thigh, anterior calf, and toes
 - d) Along the lateral thigh, anterior calf, and heel
- 56. Which of the following is not a common contributing factor for piriformis syndrome?
 - a) Wearing a tight belt around the waist
 - b) Carrying a bulky wallet in the back pocket
 - c) Wearing tight pants low on the hip
 - d) Wearing high heels
- 57. All but which of the following are questions for the client when performing a client assessment pertaining to piriformis syndrome?
 - a) Where do you feel symptoms?
 - b) Do you have any relatives with the same condition?
 - c) What type of work, hobbies, or other regular activities do you do?
 - d) Have you taken a pain reliever or muscle relaxant within the past 4 hours?
- 58. Which of the following muscles contains common trigger points associated with piriformis syndrome?
 - a) Gluteus medius, gluteus minimus, and piriformis
 - b) Gluteus maximus, sartorius, and biceps femoris
 - c) Gluteus medius, gastrocnemius, and piriformis
 - d) Quadratus femoris, gluteus minimus, and semitendinosus
- 59. If the Pace test is positive for weak abduction of the hip:
 - a) Stretch the adductors, such as the gluteal muscles and the hip flexors
 - b) Strengthen the adductors, such as gluteal muscles and the tensor fascia latae
 - c) Stretch the abductors, such as the gluteal muscles and sartorius
 - d) Strengthen the abductors, such as the gluteal muscles and tensor fascia latae

- 60. ______ soft tissues including the medial and lateral collateral ligaments and the anterior and posterior cruciate ligaments protect the knee from excessive rotation and translation during movement.
 - a) Noncontractile
 - b) Contractile
 - c) Adipose
 - d) Articular
- 61. The most common symptom of patellofemoral syndrome is:
 - a) Increased Q-angle
 - b) Decreased Q-angle
 - c) Pain at the anterior knee
 - d) Pain at the posterior knee
- 62. All but which of the following is a differentiating condition commonly confused with or contributing to patellofemoral syndrome?
 - a) Bone spur
 - b) Piriformis syndrome
 - c) Ligament injury/sprain
 - d) Meniscus injury
- 63. Which of the following muscles does not attach at the pes anserine?
 - a) Sartorius
 - b) Gracilis
 - c) Biceps femoris
 - d) Semitendinosis
- 64. In your ROM assessment of patellofemoral syndrome, resisted extension of the knee may reveal weakness in the:
 - a) Hamstrings and cause pain in the posterior knee
 - b) Hamstrings and cause pain in the anterior knee
 - c) Quadriceps and cause pain in the anterior knee
 - d) Quadriceps and cause pain in the posterior knee
- 65. When beginning treatment of patellofemoral syndrome, if you notice swelling:
 - a) Apply moist heat for 10 minutes and then begin treatment
 - b) Apply friction strokes toward the nearest lymph nodes
 - c) Apply superficial draining strokes toward the nearest lymph nodes
 - d) Apply ice until the area becomes numb

- 66. How can you instruct the client to stretch the hamstrings and plantar flexors while strengthening the quadriceps?
 - a) Have the client sit comfortably with the back supported, and then flex the knee and dorsiflex the ankle
 - b) Have the client sit comfortably with the back supported, and then extend the knee and dorsiflex the ankle
 - c) Have the client lay comfortably with the back supported, and then extend the knee and plantar flex the ankle
 - d) Have the client lay comfortably with the back supported, and then flex the knee and plantar flex the ankle

- 67. The worst of the pain of plantar fasciitis is often felt in the _____, when passive extension of the toes increases tensile stress in the plantar fascia.
 - a) Mid stance phase of gait
 - b) Pre-swing phase of gait
 - c) Mid-swing phase of gait
 - d) Push-off phase of gait
- 68. Symptoms of plantar fasciitis are felt most frequently:
 - a) With the first steps after rest
 - b) After 15 minutes of activity
 - c) After 30 minutes of activity
 - d) After 1 hour of activity
- 69. Underlying pathologies, such as _____ may be contributing factors in plantar fasciitis, and should not be treated with massage until assessed by a health care provider.
 - a) Arthritis
 - b) Bone fractures
 - c) Symptoms associated with systemic conditions such as diabetes
 - d) All of the above
- 70. _____ may be restricted when tight plantar flexors limit movement.
 - a) Active dorsiflexion of the ankle
 - b) Active extension of the toes
 - c) Passive extension of the toes
 - d) Resisted dorsiflexion of the ankle
- 71. When beginning treatment for plantar fasciitis conditions with the client in the prone position, why are the ankles bolstered?
 - a) To reduce passive plantar flexion of the ankle
 - b) To increase passive plantar flexion of the ankle
 - c) To reduce passive dorsiflexion flexion of the ankle
 - d) To increase passive plantar rotation of the ankle

- 72. In cases of plantar fasciitis, there should be some improvement with each session. If this is not happening, all but which of the following may be possible?
 - a) There is too little time between treatments
 - b) The client is not adjusting activities of daily living or is not keeping up with selfcare
 - c) The condition is advanced or has other musculoskeletal complications that are beyond your basic training
 - d) The client has an undiagnosed, underlying condition

- 73. A/an ______ strain occurs when a muscle is recruited to perform a contraction quickly and intensely, particularly against resistance.
 - a) Severe
 - b) Moderate
 - c) Acute
 - d) Chronic
- 74. The most common site of strain is at or near the:
 - a) Musculotendinous junction
 - b) Neuromuscular junction
 - c) Tendon
 - d) Ligament
- 75. All but which of the following are common risk factors for strains?
 - a) Age
 - b) Temperature
 - c) Pregnancy
 - d) Quick, intense movement
- 76. The basic goals for treating muscle strains include all but which of the following?
 - a) Reducing adhesions and scar tissue
 - b) Stretching weak muscles
 - c) Reorienting muscle fibers
 - d) Lengthening shortened muscles
- 77. On palpation, the site of injury in muscle strains may be tender in:
 - a) The acute stage
 - b) The subacute stage
 - c) The chronic stage
 - d) All stages
- 78. As time passes, scar tissue:
 - a) Becomes thinner, lighter, and possibly minimal
 - b) Becomes thicker, denser, and possibly fibrous
 - c) Becomes thicker, lighter, and possibly fibrous
 - d) Spreads into surrounding muscles

- 79. When is it appropriate to apply moist heat to the affected area to soften scars and adhesions and increase local circulation?
 - a) When swelling is minor or absent and bruises have sufficiently faded
 - b) When swelling is moderate and bruises are dark and blue
 - c) When swelling is minor or absent and bruises are dark and blue
 - d) When swelling is moderate or absent and bruises have sufficiently faded

80. A ligament is only functional:

- a) Under compressive force
- b) Under tensile stress
- c) During resisted ROM
- d) When performing intense activity
- 81. When a ligament is injured, neurological signals activate ______ to stabilize the joint.
 - a) Creep
 - b) Inflammation
 - c) Reflexive muscle activity
 - d) Blood cells

82. Which of the following is the most common cause of a sprain?

- a) A swift, high-impact movement that stretches the ligament beyond its capacity
- b) A slow, low-impact movement that stretches the ligament beyond its capacity
- c) Immobility
- d) Poor technique
- 83. Significant swelling that occurs within the first 20 minutes of injury to a joint may indicate hemarthrosis, which is:
 - a) Bleeding in the tendons that cross the joint
 - b) Bleeding in the ligaments
 - c) Bleeding in the joint capsule
 - d) Bleeding in the muscle fibers
- 84. If ______ persists into the subacute and chronic stages of sprain, resisted ROM may be limited because of pain on contraction of the muscle(s) in spasm or of their weakened antagonists.
 - a) Protective muscle splinting
 - b) Protective proprioception
 - c) Protective muscle spasm
 - d) Protective muscle swelling

- 85. Condition-specific massage treatment for ligament sprains focuses on:
 - a) Grade 1 sprains in all stages
 - b) Grade 2 sprains in the late subacute and chronic stages
 - c) Grade 3 sprains in the late subacute and chronic stages
 - d) All of the above

86. In a relaxed tendon, the parallel collagen fibers are slightly ______ which, like a spring, provides shock absorption during activity.

- a) Elastic
- b) Crimped
- c) Denser
- d) Weaved

87. At the end of a ROM, the tendon ______, releasing energy and generating a greater force for movement, reducing energy expenditure required by the muscle.

- a) Rests
- b) Crimps
- c) Recoils
- d) Bends

88. Tenosynovitis is the _____ of a _____.

- a) Degeneration, tendon
- b) Inflammation, tendon
- c) Inflammation, tenosynovium
- d) Degeneration, tenosynovium
- 89. With tendonitis and tendinosis, the location of pain during a ______ of the affected joint may help to determine if the injury is in the muscle belly or the tendon.
 - a) Resisted concentric contraction
 - b) Active concentric contraction
 - c) Full passive shortening of the muscle
 - d) Full passive stretch
- 90. All but which of the following is a differentiating condition commonly confused with or contributing to tendinopathy?
 - a) Piriformis syndrome
 - b) Carpal tunnel syndrome
 - c) Sprain
 - d) Bursitis
- 91. Passive range of motion assessment should not be used in the:
 - a) Acute stage
 - b) Subacute stage
 - c) Chronic stage
 - d) Any stage

- 92. When treating a client with a tendinopathy, there should be some improvement with each session. If this is not happening, all but which of the following may be a possibility?
 - a) There is too little time between treatments
 - b) The client is not adjusting activities of daily living or is not keeping up with selfcare
 - c) The condition is advanced or has other musculoskeletal complications that are beyond your basic training
 - d) The client has an undiagnosed, underlying condition

This completes the Medical Massage Therapy exam.