

Orthopedic Massage Home Study Course

17 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.

PLEASE CAREFULLY READ THE DIRECTIONS ON PAGE 2

Instructions for the Orthopedic Massage Home Study Course

Thank you for investing in the Orthopedic Massage home study course, a 17 CE hour course designed to further your knowledge on orthopedic soft-tissue conditions and treating them with massage therapy and bodywork. The text will help you understand and apply massage when treating orthopedic problems including, but not limited to, sprains, strains and tendonitis.

This guide will contain all of the instructions you will need to complete this course. This is a 17 CE hour course, so that means it should take you approximately 17 hours to read the text, complete the multiple choice exam and course evaluation. This course is not meant to teach advanced hands on techniques. It is a course meant to introduce you to orthopedic massage and its related theories. Please seek advanced training for hands on skills.

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 at www.massagetherapyceu.com.**
- 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 an 80% 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. Feel free to review the textbook while taking the test. This course uses the textbook “Orthopedic Massage”, by Whitney W. Lowe. There are no trick questions on the exam. All of the answers can be found in the textbook.

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 and risk losing your answered questions!

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 Orthopedic Massage home study course.

Orthopedic Massage Examination

Chapter 1

1. Orthopedic massage applies to treatment of conditions resulting from any number of activities such as work, sports or accidents.
 - A. True
 - B. False

2. Which of the following lists the four primary components of orthopedic massage?
 - A. Orthopedic diagnosis, matching the physiology of the tissue injury with the physiological effects of treatment, applying effective treatment, curing of the client's condition
 - B. Orthopedic assessment, matching the physiology of the tissue injury with the physiological effects of treatment, treatment adaptability and appropriate use of the rehabilitation protocol
 - C. Orthopedic assessment, determining the cause and diagnosis of the condition, determining the severity of the soft tissue injury, referral of the client to a specialist
 - D. Injury occurs in the soft tissues, matching the physiology of the tissue injury with the physiological effects of treatment, diagnosing the injury and appropriate use of the rehabilitation protocol

3. Which of the following is a basic assessment tool of orthopedic massage?
 - A. History
 - B. Palpation
 - C. Range of motion and resistance testing
 - D. All of the above

4. Understanding the physiological effects of a technique means knowing physiologically how and in what way a technique is helpful for a particular tissue dysfunction.
 - A. True
 - B. False

5. What does the acronym NIRS stand for?
 - A. Normalize soft-tissue dysfunction, improve flexibility, restore proper movement patterns and strengthening and conditioning
 - B. Neutralize pain, improve range of motion, restore normal healthy tissues and strengthening and conditioning
 - C. Normalize soft-tissue dysfunction, increase circulation in the tissues, restore health and strengthening
 - D. Nerve regeneration, improve flexibility, refer the client to another healthcare professional and stretching the affected area

Chapter 2

6. Which of the following type of muscle contraction is the most common cause of muscular injury?
 - A. Concentric
 - B. Isometric
 - C. Eccentric
 - D. Neutral

7. In assessment, which of the following may be a sign of hypertonic muscles?
 - A. Shortened muscles
 - B. Tightness upon palpation compared to other unaffected tissues
 - C. Limited range of motion
 - D. All of the above

8. Extensive tensile stress on a muscle can produce tearing of the muscle fibers; this injury is defined as a fracture.
 - A. True
 - B. False

9. Which of the following can be classified as a third degree muscle strain?
 - A. Minor muscle spasm with mild pain on stretching
 - B. Moderate swelling with moderate impaired function
 - C. Pronounced muscle weakness and loss of function
 - D. Minor muscle weakness with pronounced pain on stretching

10. What is the primary problem in tendinosis?
 - A. A tearing of the tendon fibers
 - B. A collagen breakdown in the tissue
 - C. Inflammation due to micro-tears in the tendon sheath
 - D. Decrease in nerve conduction to the tendon

11. What is the primary function of ligament tissue?
 - A. To connect adjacent bones to each other to establish stability in the skeletal structure
 - B. To transmit the contraction force of the skeletal muscles to the bones in order to generate movement
 - C. To intricately connect different bones, organs and other soft tissues together
 - D. To transmit neurological impulses from the bones to the muscle fibers

12. Damage to the joint capsule is often a/an _____ injury.
 - A. Chronic
 - B. Painless
 - C. Acute
 - D. Sub-acute

13. Which of the following is a function of fascia?
 - A. To provide support, shape and suspension for most of the soft tissues of the body
 - B. To aid in force transmission
 - C. To provide extensive proprioceptive feedback
 - D. All of the above

14. Fascia has been found to contain active contractile cells indicating that it is able to contract and elongate with some degree of neurological control.
- A. True
 - B. False
15. All of the following are signs/symptoms of nerve compression/tension EXCEPT:
- A. Reduced motor impulses
 - B. Pain free dermatomes
 - C. Motor weakness in a specific myotome
 - D. Paresthesia sensations
16. A nerve pathology that occurs at the nerve root is called:
- A. Myotome
 - B. Dermatome
 - C. Radiculopathy
 - D. Neuropathy
17. Which of the following is the strongest type of cartilage and is designed to provide rigidity and support?
- A. Hyaline or articular
 - B. Fibrocartilage
 - C. Elastic
 - D. Stationary

Chapter 3

18. Which of the following lists the three primary categories of pain outlined in the text?
- A. Acute, chronic and referred
 - B. Mild, moderate and severe
 - C. Nerve, muscle and bone
 - D. All of the above
19. Which of the following is an example of a convection thermal modality?
- A. Heat pack
 - B. Ice bag
 - C. Jacuzzi tub
 - D. Sauna
20. Which of the following is a benefit of heat?
- A. Increases local tissue metabolism
 - B. Increases the extensibility and elasticity of various connective tissues
 - C. Assists therapeutic stretching procedures
 - D. All of the above
21. All of the following are contraindications to heat therapy EXCEPT:
- A. Acute injury
 - B. Lack of edema
 - C. Malignancy
 - D. Broken skin

22. According to the text, ice massage and cold immersion applications should last no longer than:
- A. 5 minutes
 - B. 15 minutes
 - C. 30 minutes
 - D. 45 minutes
23. Which of the following correctly lists the four stages of the body's response to cryotherapy?
- A. Strong sensation of the cold, reddening of the skin, numbness and breaking of the superficial veins in the skin
 - B. Reddening of the skin, burning sensations in the skin, itching sensations in the skin and numbness
 - C. Strong sensation of the cold, burning sensations in the skin, deep aching sensations and numbness
 - D. Mild sensation of the cold, decreased localized swelling, deep aching sensations and numbness
24. Which of the following is a benefit of cold?
- A. Decreased edema
 - B. Reduction in muscle soreness
 - C. Decreased muscle tightness
 - D. All of the above
25. Which of the following is an example of a counterirritant topical analgesic?
- A. Aspercream
 - B. Biofreeze
 - C. Capzasin-P
 - D. Flexall

Chapter 4

26. Sound palpatory skills and awareness of the client's response to a technique are prerequisites for effective massage.
- A. True
 - B. False
27. How is compression broadening performed?
- A. Gliding superficially on the skin parallel to the muscle fibers
 - B. Applying stationary pressure on a point
 - C. Applying pressure to an area while performing a broad cross fiber stroke
 - D. Retaining contact on a point and moving the skin with the technique
28. Deep longitudinal stripping is good for:
- A. Reducing hypertonicity
 - B. Increasing pliability in muscles and connective tissues
 - C. Inactivating myofascial trigger points
 - D. All of the above

29. When using static compression, a therapeutic response can generally be achieved in about _____ seconds.
- A. 3-5
 - B. 8-10
 - C. 15-20
 - D. 25-30
30. What does massage with active movement involve?
- A. Using massage techniques in combination with the client actively moving a muscle
 - B. Using massage techniques in combination with passive joint movement
 - C. The use of massage techniques with no movement of the joint or muscle
 - D. The client moving a joint through its range of motion with no assistance/resistance from the therapist
31. Which of the following is a way to perform a shortening active engagement technique?
- A. Apply static compression to an area, then with your free hand move the client's joint through its entire range of motion
 - B. Apply static compression to an area, then elongate or extend the joint to create a lengthening in the tissue
 - C. Apply static compression to an area, then instruct the client to concentrically contract (shorten) the affected muscle
 - D. Apply static compression to an area, then instruct the client to eccentrically contract (lengthen) the affected muscle
32. Lengthening strokes during active engagement are effective for:
- A. Decreasing muscle tightness
 - B. Reducing irritable myofascial trigger points
 - C. Encouraging tissue elongation
 - D. All of the above
33. Myofascial techniques are usually applied with minimal or no lubrication so that the practitioner's hands or fingers do not easily glide across the skin but instead pulls across the skin creating greater effect on the fascial layers under the skin.
- A. True
 - B. False
34. How is a static stretch performed?
- A. By bobbing or bouncing into a stretch to encourage tissue elongation in the muscle
 - B. By bringing a tissue/muscle into a lengthened position and holding it there for some period of time
 - C. By performing an isometric contraction first, then bringing the tissue into a lengthened position
 - D. All of the above

35. Active-assisted stretching uses a variety of stretching techniques which are based on the neurological principles of:
- A. Active release technique (ART)
 - B. Muscle energy technique (MET)
 - C. Post isometric relaxation (PIR)
 - D. Active isolated stretching (AIS)

Chapter 5

36. The primary physiological effects of massage can be broken down into several categories which include fluid mechanics, neuromuscular responses, connective tissue responses, psychological effects and reflex effects.
- A. True
 - B. False
37. Which of the following is an effect of massage on fluid mechanics?
- A. Massage dilates superficial blood vessels to encourage greater circulation
 - B. Massage encourages blood flow in smaller capillaries that are restricted due to muscle tightness
 - C. Massage reduces edema
 - D. All of the above
38. All of the following are effects of massage on connective tissues EXCEPT:
- A. Tensile loads of massage applied to fascial tissues help elongate and stretch them
 - B. Low-level tangential or transverse forces applied to fascia increase neural excitability and increase excess muscle tension
 - C. Massage encourages fibroblast proliferation, which helps rebuild damaged tissues
 - D. Massage techniques, such as deep transverse friction, can help reduce scar tissue
39. Which of the following are reflex effects of massage?
- A. Increased immune system function
 - B. Lowered blood pressure
 - C. Reduced viscerosomatic reflex activity
 - D. All of the above

Chapter 6

40. Which of the following is the most common type of ankle sprain?
- A. Lateral ankle sprains
 - B. Medial ankle sprains
 - C. Syndesmosis sprains
 - D. Iliopsoas sprains
41. Which of the following is a suggested technique for reducing local edema in ankle sprain cases?
- A. Deep friction
 - B. Deep longitudinal stripping
 - C. Lymphatic drainage techniques
 - D. Stretching

42. When treating a Morton's neuroma with soft-tissue manipulation, which of the following techniques are suggested?
- A. Techniques which put direct pressure on the region near the metatarsal heads
 - B. Techniques which separate the metatarsal heads
 - C. Superficial techniques such as lymphatic drainage
 - D. Techniques with high tensile forces on the surrounding tissues
43. What is the primary cause of plantar fasciitis?
- A. Excessive tension on the attachment of the plantar fascia into the metatarsal heads
 - B. Excessive tension on the attachment of the plantar fascia into the anterior calcaneus
 - C. Lack of tension on the attachment of the plantar fascia into the anterior calcaneus
 - D. Excessive tension on the toe attachment of the plantar fascia
44. Which of the following is a suggested technique for treating plantar fasciitis?
- A. Longitudinal stripping
 - B. Compression broadening
 - C. Active engagement lengthening techniques
 - D. All of the above
45. Tarsal tunnel syndrome is a compression or tension neuropathy of the tibial nerve in the tarsal tunnel.
- A. True
 - B. False
46. All of the following are traditional treatment approaches to tarsal tunnel syndrome EXCEPT:
- A. Orthotics
 - B. Soft-tissue manipulation
 - C. Continued excessive use
 - D. Anti-inflammatory medications
47. A key factor in Achilles tendinosis treatment is to reduce the load on the tendon with a heel lift or orthotic.
- A. True
 - B. False
48. What is the effect of using deep friction techniques to treat Achilles tendinosis?
- A. Friction techniques encourage elongation of the Achilles tendon
 - B. Friction techniques encourage fibroblast proliferation and tendon healing
 - C. Friction techniques reduce overall tension in the triceps surae group which lessen the pulling force in the Achilles tendon
 - D. All of the above
49. Which of the following lists the three muscles that comprise the anterior compartment of the lower leg?
- A. Tibialis anterior, extensor digitorum longus and extensor hallucis longus
 - B. Soleus, gastrocnemius and flexor pollicis longus
 - C. Tibialis posterior, extensor pollicis longus and extensor hallucis longus
 - D. Tibialis anterior, gastrocnemius and extensor digitorum longus

50. Which of the following is a contraindication to massage for anterior compartment syndrome?
- A. Chronic stage
 - B. Minimal swelling
 - C. Acute stage
 - D. Minimal pain
51. Which of the following techniques may be effective in treating shin splints?
- A. Deep stripping
 - B. Active engagement lengthening movements
 - C. Active engagement with resistance
 - D. All of the above
52. Hallux valgus deformities occur over a long period; massage can reduce pain and symptoms and encourage greater mobility, but are limited in their effectiveness in reversing the postural disorder.
- A. True
 - B. False
53. Which of the following conditions may benefit from the use of orthotics?
- A. Pes planus and pes cavus
 - B. Calcaneal valgus and calcaneal varus
 - C. Excessive supination and overpronation
 - D. All of the above

Chapter 7

54. Massage is used for direct treatment of an anterior cruciate ligament (ACL) sprain.
- A. True
 - B. False
55. When treating an ACL sprain, deep longitudinal stripping to the hamstrings is used to:
- A. Diagnose an acute ACL injury
 - B. Treat the quadriceps for excessive muscle weakening
 - C. Treat the hamstrings for excessive muscle tension
 - D. Treat the hamstrings for edema
56. Why do medial collateral ligament (MCL) sprains often occur in conjunction with meniscal damage?
- A. Because the medial meniscus has a fibrous connection with the MCL
 - B. Because the medial meniscus and the MCL are the same ligament
 - C. Meniscus damage never occurs in conjunction with an MCL sprain
 - D. Because the MCL is the only stabilizer of the medial meniscus
57. All of the following are effects of friction on MCL sprains EXCEPT:
- A. Encourages fibroblast production and ligament healing
 - B. Mobilizes the ligament against adjacent tissues
 - C. Relieves edema and tissue swelling in the acute stages
 - D. Helps prevent fibrous adhesion with scar tissue during the healing process

58. What is patellofemoral pain syndrome (PFPS)?
- A. A tearing of the patellar ligament
 - B. A general term for anterior knee pain that may originate from a variety of causes
 - C. A chronic overuse syndrome caused by excessive use of the quadriceps muscles
 - D. A neuropathy caused by a pinching of the sciatic nerve
59. Which of the following is a suggested technique for treating PFPS and chondromalacia?
- A. Compression broadening to the quadriceps
 - B. Deep longitudinal stripping to the quadriceps
 - C. Friction for patellar mobility
 - D. All of the above
60. All of the following are traditional treatment methods for iliotibial band (ITB) friction syndrome EXCEPT:
- A. Activity modification
 - B. Amputation
 - C. Anti-inflammatory medication
 - D. Massage
61. Soft-tissue manipulation techniques for treating patellar tendinosis should focus on:
- A. Reducing tension in the hamstrings muscle group
 - B. Reducing tension in the calf muscles
 - C. Reducing tension in the quadriceps muscle group
 - D. Reducing tension in the gluteal muscles
62. Why are hamstring strains the most common type of strain in the body?
- A. Because of the strength imbalance between the hamstrings and quadriceps
 - B. Because of the structure and biochemical demands placed on them
 - C. Because they are multi-articulate muscles, acting across more than one joint at a time
 - D. All of the above
63. Which of the following techniques is best applied to the site of an adductor strain to help develop a functional, flexible, and pliable injury repair site?
- A. Effleurage
 - B. Deep transverse friction
 - C. Compression broadening
 - D. Deep longitudinal stripping
64. Massage treatment for postural disorders of the knee and thigh, such as genu valgum and genu varum, are performed only as an adjunctive procedure that focuses on restoring optimal biomechanical balance.
- A. True
 - B. False

Chapter 8

65. Pain experienced in piriformis syndrome is most likely caused by:
- A. An entrapment of the sciatic nerve by the piriformis muscle
 - B. An entrapment of the sciatic nerve by the quadratus femoris muscle
 - C. An entrapment of the sacrospinous ligament by the piriformis muscle
 - D. An entrapment of the superior gluteal nerve by the piriformis muscle
66. Which of the following are suggested techniques to treat hypertonicity in the piriformis without putting direct pressure on the compression site?
- A. Myofascial compression techniques
 - B. Active assisted stretching procedures
 - C. Superficial effleurage techniques
 - D. Longitudinal stripping on the piriformis
67. Which of the following is a muscle with a strong influence on sacroiliac (SI) joint mechanics as well as one which should be addressed when treating SI joint dysfunction?
- A. Gluteus maximus
 - B. Biceps femoris
 - C. Latissimus dorsi
 - D. All of the above
68. All of the following are symptoms of trochanteric bursitis EXCEPT:
- A. Aching pain over the lateral hip region
 - B. Pain when lying on the affected side
 - C. Relief with activities such as running
 - D. Pain which radiates into the groin or lateral thigh region
69. There is no benefit from applying direct massage to an inflamed bursa and, in fact, this approach is contraindicated because of further compression and irritation to the bursa.
- A. True
 - B. False
70. Which of the following techniques is suggested for treating an anterior pelvic tilt?
- A. Sweeping cross fiber to lumbar muscles
 - B. Deep stripping for quadratus lumborum
 - C. MET for iliopsoas
 - D. All of the above
71. Where is the primary treatment emphasis placed when treating a lateral pelvic tilt?
- A. The low side of the lateral tilt
 - B. The posterior side, bilaterally
 - C. The high side of the lateral tilt
 - D. The anterior side, bilaterally

Chapter 9

72. All of the following are effects of myofascial techniques on tissues when treating neuromuscular low back pain EXCEPT:
- A. Reduction of superficial muscle tension
 - B. Increased tissue circulation
 - C. Increased edema
 - D. Enhanced pliability in the subcutaneous fascia
73. When using static compression to reduce muscular hypertonicity in a specific location, how long should the pressure be held?
- A. 3-5 seconds
 - B. 8-10 seconds
 - C. 15-20 seconds
 - D. 22-25 seconds
74. Soft-tissue manipulation for herniated nucleus pulposus (HNP) should be used with caution and it is always good idea to have the client evaluated by another health professional if disc herniation is suspected.
- A. True
 - B. False
75. Massage treatment for zygapophysial (facet) joint irritation should focus on which of the following muscles/muscle groups?
- A. Lumbar extensors
 - B. Iliopsoas
 - C. Rectus femoris
 - D. All of the above
76. What is a spondylolisthesis?
- A. A breakdown of the vertebral body
 - B. A forward slippage of one vertebrae in relation to another
 - C. A stress fracture to the pars interarticularis of the vertebrae
 - D. A protruding lumbar disc
77. What does massage treatment for kyphosis focus on?
- A. Treating tissues that are short and hypertonic in the upper back region, as well as those tissues that are fatigued from being held too long in an over-lengthened position in the anterior chest
 - B. Treating tissues that are short and hypertonic in the upper chest region, as well as those tissues that are fatigued from being held too long in an over-lengthened position in the upper back
 - C. Treating tissues that are elongated in the upper chest region, as well as those tissues that are fatigued from being held tightly in a shortened position in the upper back
 - D. Treating tissues that are short and hypertonic in the lower back, as well as those tissues that are fatigued from being held too long in an over-lengthened position in the anterior pelvic region

78. What is the cause of functional scoliosis?
- A. A fixed bony deformity
 - B. Excessive loads on the spine
 - C. Excessive muscle tension over time
 - D. A quick twisting movement

Chapter 10

79. Which of the following techniques is suggested for treating neuromuscular neck pain?
- A. Myofascial techniques
 - B. Static compression
 - C. Deep stripping
 - D. All of the above
80. When treating a client with a herniated nucleus pulposus in the cervical region, what is massage effective for?
- A. Addressing and relieving patterns of associated dysfunctional muscular hypertonicity
 - B. Relieving the pressure within the disc itself
 - C. Diagnosing a central protrusion onto the spinal cord
 - D. All of the above
81. The thoracic outlet/inlet is the area where structures either exit or enter the upper border of the thoracic rib cage.
- A. True
 - B. False
82. Which of the following muscles may contain trigger points that mimic thoracic outlet syndrome (TOS) symptoms?
- A. Pectoralis major
 - B. Teres major
 - C. Subscapularis
 - D. All of the above
83. Why does the practitioner need to be cautious about applying pressure when treating TOS?
- A. Because TOS involves disc herniation, additional compression may aggravate the problem
 - B. Because TOS involves a fracture, additional compression may aggravate the problem
 - C. Because TOS involves nerve compression, additional compression may aggravate the problem
 - D. Because TOS involves a severing of the nerve tissue, additional compression may aggravate the problem
84. What is the primary focus of massage when treating torticollis?
- A. To stabilize the central nervous system
 - B. To reduce the chronic muscle spasms that occur
 - C. To increase the chronic muscle spasms that occur
 - D. To increase edema in the surrounding tissues

85. Which of the following techniques is suggested for treating whiplash associated disorder (WAD) in the early stages of rehabilitation?
- A. MET with reciprocal inhibition techniques
 - B. Deep longitudinal stripping techniques
 - C. Myofascial release techniques
 - D. Deep compression techniques
86. One of the concerns in working with clients with a WAD injury is identifying what the problem really is. If you are in doubt, refer the client to another healthcare professional.
- A. True
 - B. False
87. In the upper crossed syndrome, which of the following postural muscles are prone to hypertonicity?
- A. Upper trapezius and levator scapulae
 - B. Cervical extensors on the posterior aspect
 - C. Pectoralis major and minor
 - D. All of the above

Chapter 11

88. All of the following pathologies may be associated with frozen shoulder EXCEPT:
- A. Subacromial bursitis
 - B. Calcific tendonitis
 - C. Lower crossed syndrome
 - D. Rotator cuff pathology
89. Why is it important to determine the stage of the client's frozen shoulder condition before treatment?
- A. In order to determine the amount of edema present
 - B. In order to determine which techniques will be the most effective
 - C. In order to properly diagnose the client's injury
 - D. In order to determine how long to hold each stretch
90. Which of the following lists the four muscles that comprise the rotator cuff?
- A. Supraspinatus, deltoid, latissimus dorsi and subscapularis
 - B. Deltoid, infraspinatus, teres major, teres minor and subscapularis
 - C. Supraspinatus, infraspinatus, teres minor and subscapularis
 - D. Teres major, teres minor, supraspinatus and infraspinatus
91. Why is static compression used on the infraspinatus and teres minor when treating a rotator cuff injury?
- A. To reduce tension on damaged muscle or tendon fibers
 - B. To encourage tissue lengthening on the associated tendons
 - C. To reduce superficial edema and warm the tissues
 - D. To stimulate fibroblast activity in the damaged tendon fibers

92. Which of the following is a traditional treatment approach when treating shoulder impingement?
- A. Strengthening
 - B. Anti-inflammatory medication
 - C. Surgery
 - D. All of the above
93. All of the following techniques are suggested for treating bicipital tendinosis EXCEPT:
- A. Sweeping cross fiber
 - B. Deep transverse friction
 - C. Deep longitudinal stripping
 - D. Active engagement methods
94. A general rule when treating shoulder separation injuries is – the more recent the injury, the shorter the duration of treatment.
- A. True
 - B. False
95. All of the following are treatment goals of soft-tissue manipulation for glenohumeral dislocation/subluxation EXCEPT:
- A. To aid in the return of proper biomechanical balance and reduction of muscular splinting in the region
 - B. To target/reduce hypertonicity in any muscles that could pull the humeral head in an unwanted direction
 - C. To restore the dislocated/subluxed joint back to its original state
 - D. To reduce possible secondary problems such as shoulder impingement

Chapter 12

96. Which of the following is an effect of broadening techniques when treating lateral epicondylitis (tennis elbow)?
- A. They enhance the ability of the fibers to spread and broaden as they go into concentric contraction
 - B. They enhance tissue pliability and the muscle's ability to elongate
 - C. They help identify and neutralize myofascial trigger points
 - D. All of the above
97. Which of the following disorders may produce pain sensations in the same region as lateral epicondylitis?
- A. Glenohumeral dislocation/subluxation
 - B. Compression neuropathies of the radial nerve
 - C. Thoracic outlet syndrome
 - D. Pronator teres syndrome
98. Which of the following is a suggested technique for treating medial epicondylitis (golfers elbow)?
- A. Compression broadening
 - B. Deep longitudinal stripping
 - C. Active engagement shortening and lengthening
 - D. All of the above

99. Cubital tunnel syndrome is an acute condition and immediate results can be expected with massage treatment.
- A. True
 - B. False
100. What is pronator teres syndrome (PTS)?
- A. An ulnar nerve pathology frequently mistaken for carpal tunnel syndrome
 - B. A thoracic outlet nerve compression frequently mistaken for cubital tunnel syndrome
 - C. A median nerve pathology frequently mistaken for carpal tunnel syndrome
 - D. A median nerve pathology frequently mistaken for cubital tunnel syndrome
101. The first and most common symptom of carpal tunnel syndrome (CTS) is:
- A. Paresthesia
 - B. Numbness
 - C. Pain in the median nerve distribution of the hand
 - D. All of the above
102. Which of the following muscle groups does initial massage treatment for CTS focus on?
- A. Wrist extensors
 - B. Wrist flexors
 - C. Shoulder girdle
 - D. Rotator cuff
103. When treating a client with De Quervain's tenosynovitis, if the client experiences shooting pain in the hand during the treatment what should the therapist do?
- A. Continue the massage and inform the client that pain is common during treatment
 - B. Move the treatment to a different region to avoid putting pressure on the radial nerve
 - C. Discontinue treatment and refer the client to another healthcare provider
 - D. All of the above
104. All of the following are suggested soft-tissue manipulation techniques for treating Guyon's canal syndrome EXCEPT:
- A. Compression broadening to the wrist flexors
 - B. Deep stripping to the wrist flexors
 - C. Myofascial release of transverse carpal ligament
 - D. Median nerve mobilization

This completes the Orthopedic Massage exam.