

1. Which primary factor may cause an athlete to suffer from lateral epicondylitis?
 - A. Not warming up properly prior to activity
 - B. Excessive pronation during activity
 - C. Excessive supination during activity
 - D. Poor technique and body mechanics
2. Which factor is NOT a means of preventing lateral epicondylitis?
 - A. Intense flexibility program
 - B. Intense strength program
 - C. Use of a counter-irritant during the warm-up period
 - D. Enforcing good body mechanics and good technique
3. In preventing throwing related injuries in adolescent athletes:
 - A. Emphasize 90 degrees of shoulder abduction and appropriate weight transference to minimize valgus stress of the elbow during throwing.
 - B. Emphasize 90 degrees of elbow flexion during the throwing motion.
 - C. Emphasize the 90 degrees of shoulder abduction and appropriate weight transfer to minimize varus stress of the elbow during throwing.
 - D. Emphasize less than 90 degrees of shoulder abduction during throwing.
4. Lateral epicondylitis may be recognized when:
 - A. There is extensor tendon pain when the elbow is extended, with middle finger extension
 - B. There is flexor tendon pain with elbow flexion and wrist flexion
 - C. There is pain on supination with wrist extension
 - D. There is pain on pronation with wrist flexion
5. The term _____ is another way of identifying a strain to the ulnar collateral ligament.
 - A. varus stress overload
 - B. valgus stress overload
 - C. pronation stress overload
 - D. supination stress overload
6. In throwing athletes, repeated valgus stress can create a condition called:
 - A. Radial nerve subluxation
 - B. Ulnar nerve subluxation
 - C. Medial nerve compression
 - D. Radial nerve compression
7. The management of an acute dislocation of the elbow by an athletic trainer should include:
 1. Surgical reduction
 2. Immobilization with an air splint
 3. Immobilization with a vacuum splint in the found position
 4. Activation of the EMS system to effect transport
 - A. 1 & 2
 - B. 2 & 4
 - C. 3 & 4
 - D. 1 & 3
8. The management of an acute dislocation of the elbow by an athletic trainer should include:
 - A. Checking of the pulse at the distal radius
 - B. Having the athlete perform an Allen test
 - C. Having the athlete perform active ROM of the elbow
 - D. A & B only

9. In a suspected acute olecranon bursitis, the initial treatment by an athletic trainer should include:
- A. Heat
 - B. Surgical excision of the bursa
 - C. NSAIDs
 - D. Ice
10. The initial rehabilitation protocol for a dislocated elbow would include all of the following in the early stages except:
- A. Restoration of active and passive ROM
 - B. Strengthening exercises for the triceps and biceps
 - C. Functional progression activities
 - D. Emphasis placed on eccentric strengthening of the biceps and supinators to minimize hyperextension forces.
11. Following a dislocation injury to the elbow, the following rehabilitation activities would be initiated after the elbow joint capsule is totally healed (8 to 10 weeks post injury).
- A. Sport specific activity
 - B. Full return to sports
 - C. Functional progression activities
 - D. Isokinetic exercises
12. Rehabilitation of an elbow injury should include:
- A. Mimic the specific stresses that are going to be experienced in the sporting activity.
 - B. Strengthening and flexibility programs to prevent future injuries
 - C. Power and endurance training as well as an overall body conditioning program.
 - D. All the above
13. Athletic trainers are often consulted psychosocial problems due to:
- A. State regulations
 - B. Behavioral orientation to discipline
 - C. Physician preference
 - D. On campus regulations
 - E. Availability and access
14. What is the most strict form of state regulation as a means of protecting the public?
- A. authorization
 - B. certification
 - C. registration
 - D. licensure
 - E. recognition
15. A student athlete complains to the athletic trainer of painful urination and confides that they had sexual contact one week earlier. What should the trainer do?
- A. Refer to team chaplain
 - B. Refer to physician due to suspicion on STD's
 - C. Refer to psychiatrist
 - D. Refer to proctologist
 - E. Call last weeks date
16. The term "counseling" comes from the Greek word:
- A. Behavioral
 - B. Client
 - C. Consilium
 - D. Epistemology
 - E. Delineation
17. A professional sport athletic trainer contacts you about the medical records of a prospect. The senior athlete has a spondylolisthesis. The college athletic trainer should:
- A. Ask about future employment

- B. Refer questions to the head coach
 - C. Remove back information from records
 - D. Obtain a signed release from the athlete
 - E. Refer the pro athletic trainer to the appropriate team physician
18. How many CEU's does the NATA BOC Inc. require in a three-year period?
- A. six
 - B. eight
 - C. fifteen
 - D. twelve
 - E. ten
19. A minor athlete is seriously injured and taken to the appropriate HMO provider. Before medical treatment is started, it would be appropriate to:
- A. Obtain permission from the team physician
 - B. Obtain permission from the head coach
 - C. Obtain permission from the parents
 - D. Obtain permission from the transporting EMT
 - E. Search for the cheapest provider
20. The concept of confidentiality should be applied to life threatening situations and include consideration of everything listed except:
- A. Living will preference
 - B. Family history information
 - C. Collegial communications
 - D. Treatment information
 - E. Infectious disease information
21. For a health care professional to be found liable, the plaintiff must provide proof of:
- A. A duty to provide care
 - B. A breach of the duty
 - C. A proximate cause leading to damages
 - D. All of the above
 - E. None of the above
22. Of the five basic ethical principles adopted by the NATA, which of the following is NOT included:
- A. Members shall respect the rights welfare and dignity of all individuals
 - B. Members shall comply to all appropriate laws and regulations
 - C. Members shall exercise sound judgement
 - D. Members shall make adjustments in standards of service
 - E. Only A and d are correct
23. Bulimia is characterized by each of the following signs except:
- A. Laxative use
 - B. Underachieving
 - C. Increased incidence of caries
 - D. Poor body image
 - E. Periods of starvation
24. A student athlete with exercise induced asthma asks you for a conditioning workout to supplement her team workouts. You should:
- A. Refuse to make suggestion
 - B. Suggest swimming
 - C. Suggest extra running
 - D. Suggest indoor aerobic exercise discourage extra workouts
25. Duty cycle is defined as which of the following:
- A. pattern of "on" and "off" sequencing of stimulus
 - B. rate at which the pulses of current are delivered
 - C. intensity of current divided by time the current is applied
 - D. amount of current required to generate a muscle contraction
 - E. length of time current is applied

26. Which of the following correctly lists the conduction velocities of nerve fiber types from fastest to slowest:
- C, A-delta, A-beta
 - A-III, C, A-beta
 - A-delta, A-beta, C
 - A-beta, A-delta, C
 - AII, A-delta, A-beta
27. An ultrasound treatment area should not exceed which of the following:
- ERA
 - 2 x ERA
 - 4 x ERA
 - 6 x ERA
 - 10 cm diameter
28. The peak value of a current, which is also the maximal distance to which the wave rises above or below the baseline is:
- frequency
 - electromotive force
 - amplitude
 - intensity
29. The beam non-uniformity ratio (BNR) represents which of the following:
- peak intensity / average intensity
 - average intensity / peak intensity
 - peak output / total output
 - none of the above
30. When applying therapeutic ultrasound, the rate of movement of the soundhead over the body surface should not exceed which of the following:
- approximately 1" per sec (2-3 cm per sec)
 - approximately 2" per sec (4-5 cm per sec)
 - approximately 3" per sec (7-8 cm per sec)
 - approximately 4" per sec (9-10 cm per sec)
31. The ability of a material to store electrical charge is called:
- capacitance
 - inductance
 - impedance
 - resistance
32. Which of the following types of nerves requires the greatest stimulus intensity to produce depolarization:
- A-beta
 - A-delta
 - A-gamma
 - C fibers
 - α motoneuron
33. Which of the following does not relate to nerve depolarization in response to an electrical stimulus:
- diameter of the nerve
 - depth of nerve in relation to the electrode
 - pulse charge of the electrical stimulus
 - none of the above relate
 - all of the above relate
34. Which of the following therapeutic uses of transcutaneous electrical stimulation is/are strongly supported by research evidence:
- pain control
 - edema reduction
 - muscle strengthening
 - all of the above
 - none of the above

35. Which of the following neurotransmitters released from spinal cord interneurons is responsible for inhibition of pain impulse transmission from first order neurons to second order neurons:
- A. enkephalin
 - B. serotonin
 - C. Substance P
 - D. Dopamine
 - E. Acetylcholine
36. Which type of current(s) is/are characterized by constant polarity:
- A. pulsed AC
 - B. continuous AC
 - C. continuous DC
 - D. none of the above
 - E. all of the above
37. A well-designed rehabilitation program must first start with an accurate and complete _____.
- A. Diagnosis
 - B. Referral sheet
 - C. Injury intake form
 - D. Insurance form
38. One key to success in managing a rehabilitation program is understanding the _____ of the tissue involved.
- A. Biology
 - B. Healing rate
 - C. Conductivity
 - D. Homeostasis
39. A one-word definition of rehabilitation would be _____.
- A. Evaluation
 - B. Specificity
 - C. Restoration
 - D. Isokinetics
40. The most important member of the 'rehabilitation team' is _____.
- A. Physician
 - B. Therapist
 - C. Certified Athletic Trainer
 - D. Patient
41. The two most important goals of rehabilitation are minimizing inflammation and _____.
- A. Promoting vascularity
 - B. Promoting flexibility
 - C. Promoting tissue repair
 - D. Promoting neuromuscular response
42. Which of the following tissue types has the best vascular supply?
- A. Cartilage
 - B. Synovium
 - C. Ligament
 - D. Tendon
43. Which of the following affect healing time for tissue
- A. Age
 - B. Genetics
 - C. Vascularity
 - D. A. and B.
44. Chemical mediators control vascular, humoral and cellular events during which phase of tissue repair?
- A. Phase 1
 - B. Phase 2
 - C. Phase 3
 - D. Phase 4

45. Type III collagen tissue switches to Type I during which phase of tissue repair?
- A. Phase 1
 - B. Phase 2
 - C. Phase 3
 - D. Phase 4
46. Scar tissue is best stretched out with _____ load, _____ duration stretching.
- A. Low , long
 - B. High , long
 - C. Low, short
 - D. High, short
47. A balance progression program could go from bilateral to unilateral to _____ to an unstable surface to perturbations.
- A. Biodex
 - B. Eyes closed
 - C. Balance Master
 - D. Closed chain
48. Name a functional criteria for progression to running
- A. 15 degrees dorsiflexion
 - B. 50 heel rises
 - C. Complete a two mile walking program
 - D. All of the above
49. Correction of excessively lordotic posture may help prevent the development of which lumbosacral spine injury?
- A. spondylitis
 - B. spondylolysis
 - C. Scheuermann's disease
 - D. disc sequestration
50. In order to prevent posterior rotation of the pelvis and the low back pain that rotation may cause, this muscle group must have adequate flexibility.
- A. hamstrings
 - B. external rotators
 - C. hip flexors
 - D. adductors
51. Internal lumbar disc pressure is greatest when an athlete is in this position.
- A. standing & extended
 - B. sitting & extended
 - C. sitting & flexed
 - D. lying prone
52. Disruption of the L4-L5 and L5-S1 disc can result in decreased strength in this muscle.
- A. Rectus femoris
 - B. Piriformis
 - C. Sartorius
 - D. Tibialis anterior
53. An athlete presents with pain and paresthesias radiating into the posterior thigh. Which test would be indicated in order to assess for lumbar disc injury?
- A. Lasègue's test
 - B. Trendelenberg test
 - C. Fabere test
 - D. Hoover test
54. You have been treating a 17 yo baseball pitcher for low back pain for the past month. The athlete has had some relief with a hamstring stretching program but still complains of pain. He has a noted lordotic posture and states that he has the most pain in the cocking and acceleration phases of pitching. Based on this limited history, what injury are you most suspicious of?
- A. facet syndrome
 - B. spondylolysis

- C. disc herniation
 - D. spinal stenosis
55. An athlete is complaining of paresthesia in both legs. You saw this athlete's mechanism of injury and it involved a direct blow to the lower back from another athlete's helmet. What would be the most appropriate course of action in the on-field management of this injury?
- A. spine boarding the athlete with the assistance of EMS personnel
 - B. removing the athlete from the field on a Gator
 - C. having the athlete walk from the field with assistance
 - D. removing the athlete from the field on a transport chair
56. Which type of electrical stimulation would be most appropriate during the immediate management of a lumbosacral strain?
- A. low frequency TENS
 - B. NMES
 - C. high frequency TENS
 - D. interferential current
57. A 20 yo field hockey player is complaining of pain along the right side of her lower back. Your team physician has evaluated her; the diagnosis is lumbar facet syndrome. What modality would you use in order to manage this athlete's pain?
- A. spray and stretch
 - B. microcurrent electrical stimulation
 - C. moist heat and stretching
 - D. joint mobilizations using grade I AP oscillations
58. The rehabilitation of an athlete with spondylolisthesis should focus on strengthening of the _____ musculature in order to help control lumbar lordosis.
- A. abdominal
 - B. hamstring
 - C. hip flexor
 - D. spinal extensor
59. A normal lordotic curve is necessary for shock absorption in the lumbar spine. Tightness in these muscle groups must be addressed in the rehabilitation of an athlete who presents with decreased lumbar lordosis.
- A. hip flexors
 - B. knee flexors
 - C. trunk extensors
 - D. hip rotators
60. In postural training the neutral position of the pelvis is achieved when these structures are in alignment (when athlete is viewed from the side).
- A. ASIS & PSIS
 - B. greater trochanter and lateral malleolus
 - C. patella & ASIS
 - D. midline of trunk & chin
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61. The most common mechanism for a hip pointer is:
- A. a direct hit to the greater trochanter
 - B. a direct hit the iliac crest
 - C. a direct hit to the ASIS
 - D. a direct hit to the AIIS
 - E. a direct hit to the ischial tuberosity
62. Abduction of the hip is approximately _____ degrees while adduction is approximately _____ degrees.
- A. 45/45
 - B. 30/45
 - C. 45/30
 - D. 45/75
 - E. 30/0
63. The very strong and thick ligament of the hip known as the "Y" ligament is the:
- A. pubofemoral ligament
 - B. iliofemoral

- C. ligamentum teres
 - D. ischiofemoral ligament
 - E. ilioischial ligament
64. Gaenslen's test checks for:
- A. pain in the hip joint
 - B. pain at the ischial tuberosity
 - C. pain at the SI region
 - D. pain over the trochanteric bursa
 - E. pain at the lesser trochanter of the femur
65. Runners who cross their feet over the midline during running increase the Q angle and can develop:
- A. a gluteus maximus strain
 - B. an iliopsoas bursitis
 - C. a pes anserine bursitis
 - D. a trochanteric bursitis
 - E. an iliopectineal bursitis
66. An individual who complains of a sharp groin pain and weakness when running sideways, but not when running straight ahead may have a strain of the:
- A. abductor muscles
 - B. adductor muscles
 - C. iliopsoas complex
 - D. rectus femoris
 - E. iliotibial band
67. The most effective strengthening exercise for the gluteus maximus muscle is:
- A. hip flexion
 - B. hip extension with the leg straight
 - C. hip extension with the knee flexed to 90 degrees
 - D. hip adduction
 - E. hip internal rotation
68. Your team physician has cleared a football player after being out for over a month with a significant anterior thigh contusion. The athlete must be protected during all activities. Which of the following would be the most appropriate in this situation?
- A. a neoprene sleeve
 - B. a hip spica with continuation down the thigh
 - C. closed cell foam held in place with an elastic wrap
 - D. an elastic wrap over the thigh region
 - E. a large donut pad with orthoplast and foam
69. An athlete reports to you with a swollen quadriceps region. Upon examination by you and your team physician, it is determined that the athlete is suffering from an acute thigh contusion. Which would be the most appropriate treatment for this athlete?
- A. ice for 24 hours, then heat thereafter
 - B. ice for 48 hours, then heat thereafter
 - C. heat packs every 2-3 hours
 - D. ice until the hemorrhaging has stopped
 - E. ice and ultrasound
70. A 16 year old track athlete reports with acute upper hamstring pain. The team physician examines this athlete and refers him for x-rays. What is the physician trying to rule out by obtaining x-rays?
- A. myositis ossificans
 - B. stress fracture of the femur
 - C. avulsion of the ischial tuberosity
 - D. avulsion of the pubis
 - E. avulsion of the posterior superior iliac spine
71. Which of the following activities would be the most effective progressive resistance exercise for the gracilis muscle?
- A. leg extension
 - B. leg curls
 - C. squeezing a medicine ball between the knees
 - D. dead lifts

- E. hip abduction exercises
72. The Thomas test assesses tightness of the flexors of the hip. Which of the following are assessed by this test?
- A. biceps femoris and gracilis
 - B. rectus femoris and vastus lateralis
 - C. iliopsoas and tensor fascia latae
 - D. iliopsoas and rectus femoris
 - E. vastus lateralis and iliopsoas
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73. Muscles of expiration include:
- A. Diaphragm
 - B. Sternocleidomastoid
 - C. Transverse abdominis
 - D. A & B
 - E. A, B, & C
74. The liver is located in the _____ quadrant.
- A. Upper left
 - B. Lower left
 - C. Upper right
 - D. Lower right
 - E. A & B
75. A symptom of abdominal injury is:
- A. Increased thirst
 - B. Increased peristalsis
 - C. Decreased heart rate
 - D. Deep, slow breathing
 - E. Increasing blood pressure
76. An athlete with an isolated rib fracture will exhibit which of the following signs or symptoms?
- A. Slow, deep respiration
 - B. Positive rib compression test
 - C. Elevated blood pressure
 - D. A & B
 - E. A, B, & C
77. Painful menstruation is known as:
- A. Amenorrhea
 - B. Dysmenorrhea
 - C. Oligomenorrhea
 - D. Pelvic inflammatory disease
 - E. Ectopic pregnancy
78. Injury to the spleen:
- A. Refers pain to the left shoulder
 - B. Can lead to removal, necessitating periodic blood transfusions throughout the rest of the athlete's life
 - C. Diminishes the body's ability to store glucose
 - D. A & B
 - E. A & C
79. The systolic blood pressure:
- A. Represents the pressure in the artery when the heart is relaxed
 - B. Is read as the pressure when the first pulse sounds are heard
 - C. Is considered high when it exceeds 90 mmHG
 - D. A & C
 - E. None of the above
80. A spontaneous pneumothorax is characterized by:
- A. Visible trauma at the point of impact

- B. Rapidly decreasing blood pressure
- C. A solid sound with percussion to the affected side
- D. A & B
- E. A, B, & C

81. An athlete comes to you complaining of diffuse abdominal pain that is getting increasingly worse. Urination increases his abdominal pain. Your evaluation reveals rebound tenderness and rigidity in the lower right quadrant and a rapid pulse. What pathology do you suspect?
- A. Kidney infection
 - B. Kidney stones
 - C. Appendicitis
 - D. Spermatic cord torsion
 - E. Kidney contusion
82. A great danger with a ruptured spleen is its:
- A. Ability to increase the incidence of constipation
 - B. Ability to splint itself and then produce delayed hemorrhage
 - C. High incidence of infection
 - D. Ineffectiveness in producing antibodies and red blood cells
 - E. All of the above
83. Which of the following conditions can predispose an individual to injuries of the spleen?
- A. Cirrhosis
 - B. Eating right before competition
 - C. Hematuria
 - D. Mononucleosis
 - E. Ulcers
84. Any athlete who receives a severe blow to the abdomen or back region should be instructed to check for:
- A. Blood in the urine
 - B. Elevated blood pressure for several days afterwards
 - C. Elevated temperature for signs of internal infection
 - D. Visual acuity and headaches
 - E. Weight loss
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85. Of all leg fractures, the _____ has the highest incidence.
- A. Fibella
 - B. Fibula
 - C. Tibia
 - D. Talus
86. A ruptured Achilles tendon is immobilized best in what non weight bearing position of ankle:
- A. subtalar neutral
 - B. full inversion
 - C. dorsiflexion
 - D. mild plantar flexion
87. Dorsiflexion of the ankle is a motion innervated from the _____ nerve root.
- A. L1
 - B. L4
 - C. S1
 - D. S4
88. The best determinant of class II ligament instability immediately following an inversion injury to the ankle is:
- A. laxity greater than the uninvolved ankle with no end point
 - B. laxity greater than the uninvolved ankle with an end point
 - C. ability to bear weight and walk with not limp
 - D. inability to bear weight and walk without a limp

Choose:

- A. A, C

- B. A, D
- C. B, C
- D. B, D

89. Onychomycosis is the medical term used to describe
- A. Athletes foot
 - B. Plantar wart
 - C. Nail fungus
 - D. Club foot
90. Sever's Disease is an inflammation of the apophysis of the
- A. Tibia
 - B. Fibula
 - C. Talus
 - D. Calcaneus
91. Symptoms in the fractured leg that would be consistent with a neurovascular compromise are:
- A. Diminished distal pulse, cooler than other side, increasing numbness, delayed nailbed return.
 - B. Rapid distal pulse, no temperature difference, no neurologic deficit.
 - C. Rapid distal pulse, warmer than other side, radiating nerve pain.
 - D. Slow distal pulse, cooler other side, pins and needles radiating to the hip.
92. A runner who has feet that are in forefoot _____ when placed in subtalar neutral will go into _____ when moving into full weight bearing.
- A. equinus, supination
 - B. valgus, supination
 - C. valgus, pronation
 - D. varus, pronation
93. When purchasing footwear for physical activity, the following items must be considered to prevent possible injury in a person with a pes cavus abnormality.
- A. nylon uppers, rigid forefoot, flexible heel counter, snug toe box, curved last
 - B. leather uppers, rigid forefoot, rigid heel counter, perpendicular heel counter, combo last
 - C. rigid rearfoot, flexible forefoot, perpendicular heel counter, straight last
 - D. flexible heel counter, extra midfoot cushioning, flexible forefoot, curved last
94. Plantar fasciitis can be caused by hypermobility of the:
- A. First MTP joint of the great toe
 - B. Transverse tarsal joints of the midfoot
 - C. Joint Capsule of the ankle
 - D. Os trigonum
95. The most appropriate choice of therapeutic exercise progressions for ankle sprains would be:
- A. walk, jog, run, sprint, figure 8, soft cutting, hard cutting
 - B. isometrics, isokinetics, plyometrics, proprioception, isotonic, elastic
 - C. isotonic, isokinetics, manual, plyometrics, elastic, proprioception
 - D. manual, elastic, isotonic, isometric, proprioception, isokinetic
96. For tendinitis of the lower leg the best choice of resistance that offers the smallest chance of reinflammation in early programming is:
- A. Manual
 - B. Eccentric
 - C. Plyometric
 - D. Isometric _____
97. Game keeper's thumb is an injury to the ulnar collateral ligament, what is the best way to prevent this injury?
- A. glove like thumb spica
 - B. push ups
 - C. wrist curls with a light dumb bell
 - D. ulna and radial-deviation with a light dumb bell
98. To protect a boxer's hand, what is the best way to wrap the hand prior to the boxer putting on the gloves?

- A. tape a pad over the knuckles
 - B. wrap a short arm spica around the thumb and over the knuckles
 - C. wrap a short arm cloth spica around the thumb and continue wrapping figure 9's around each MP joint with the hand in slight extension
 - D. wrap a short arm cloth spica around the thumb and continue wrapping figure 8's around each MP joint with the hand in a neutral position
99. To protect a cross country skier's hands from the cold weather, the skier should wear
- A. wool mittens
 - B. a thermo protective finger glove
 - C. golfer's glove
 - D. cover the hands with Vaseline
100. In a wrist fracture where the radius and ulna are forced backward and upward (hyperextension) we call this a:
- A. Bowler's fracture
 - B. Colles' fracture
 - C. DeQuervain's fracture
 - D. Smith's fracture
101. Flexion of the DIP and PIP joints test damage to which nerve?
- A. Median
 - B. Radial
 - C. Ulnar
 - D. Volar
102. Extension of the thumb and fingers test damage to which nerve?
- A. Median
 - B. Radial
 - C. Ulnar
 - D. Volar
103. The tapping sign over the transverse carpal ligaments test for
- A. arterial impingement
 - B. ganglions
 - C. tenosynovitis of flexor tendons
 - D. carpal tunnel syndrome
104. A female gymnast is presented with a "Drop Wrist" after making a vault. What would be appropriate first-aid procedure:
- A. splint the wrist on the palmer side, wrap with an ace bandage and then apply ice
 - B. splint the wrist on the palmer side, straighten out the wrist with in-line traction, wrap with an ace bandage and then apply ice
 - C. check the radial pulse, capillary refill and finger sensation, then apply the splint on the palmer side of the wrist, wrap with an ace bandage and then apply ice
 - D. check the radial pulse, capillary refill and finger sensation, then apply the splint on the palmer side of the wrist, re-evaluate the vital signs, wrap with an ace bandage and apply ice
105. Thumb metacarpophalangeal joint dislocation should be reduced by
- A. pulling the thumb longitudinally
 - B. adducting thumb while pulling longitudinally
 - C. adducting thumb while pushing it dorsally
 - D. abducting thumb while pushing it dorsally
 - E. a physician
106. To treat a felon of the finger
- A. drill a hole through fingernail and apply pressure
 - B. soak the finger in hot water for three days
 - C. clip ends of the fingernail in a U-shape
 - D. refer to a physician for surgical drainage
 - E. bandage and soak the finger in hot water daily
107. After a proximal interphalangeal joint dislocation is reduced, how should this finger be taped for athletic participation?
- A. flex the finger beyond 90 degrees and tape the next finger
 - B. buddy tape the finger with some flexion and basket weave the affected joint

- C. basket weave the affected joint
 - D. buddy tape the joint into full extension
 - E. buddy tape the joint into 20-degree flexion
108. To ensure the most complete healing of dislocated PIP and DIP joints, constant splinting must be maintained at a 30-degree angle of flexion for how long?
- A. 1 weeks
 - B. 2 weeks
 - C. 3 weeks
 - D. 6 weeks
109. The first step in rehabilitating a hand or wrist injury is to:
- A. improve strength
 - B. perform functional
 - C. attain motion in the digits
 - D. regain proprioception
110. One common reason for a poor functional result following a hand injury is:
- A. inadequate rehabilitation
 - B. initial immobilization
 - C. use of ultrasound during early rehabilitation
 - D. inappropriate use of anti-inflammation
111. A 21-year old, right-handed basketball player sustained a fracture of her left fourth metacarpal 6 weeks ago. The fracture appears to be stable on examination and x-ray films show that a callus is beginning to form. What type of hand protection would be most appropriate when the athlete first resumes to play?
- A. a fiberglass cast
 - B. a padded glove
 - C. taping the third and fourth metacarpals
 - D. taping the third, fourth and fifth metacarpals
112. If a female has a Q angle greater than 23 degrees, she may be most susceptible to?
- A. Patellar tendonitis
 - B. Peritonitis
 - C. Medial collateral ligament sprain
 - D. Peroneal neuritis
113. A positive valgus stress test of the knee joint at 0 degrees would indicate damage to what structure?
- A. MCL
 - B. MCL & LCL
 - C. MCL & ACL
 - D. MCL & PCL
114. An athlete presents chronic lateral tilt of the patella. What taping procedure is indicated for correcting the orientation of the patella?
- A. Knee Spica
 - B. McConnell Technique
 - C. McMurray Technique
 - D. Lachman Technique
115. Larsen-Johansson disease affects what anatomical structure of the knee?
- A. Tibial Tubercle
 - B. Gerdy's Tubercle
 - C. Inferior Pole of the Patella
 - D. Popliteal Space
116. A distance runner presents to the athletic training room complaining of pain over the lateral aspect of his knee. Upon inspection, you suspect that he may have iliotibial band friction syndrome. What special test would help to confirm your suspicion?
- A. Noble Test
 - B. Patrick Test
 - C. Ober's Test
 - D. Thomas Test

117. An apophysitis characterized by pain at the attachment of the patella tendon at the tibial tubercle, usually seen in adolescents is called?
- A. Osgood-Schlatter
 - B. Larsen-Johansson
 - C. Osteochondritis Dissecans
 - D. Os Calcis Fracture
118. All of the following tests help determine if a meniscal tear is present except?
- A. Apley's Compression
 - B. Apley's Distraction
 - C. McMurray's
 - D. Yergason's
119. If an athlete has an unhappy triad, he/she has damage to what three structures?
- A. MCL, ACL, & Medial Meniscus
 - B. MCL, ACL, & Lateral Meniscus
 - C. MCL & PCL
 - D. MCL, LCL, & Medial meniscus
120. A synovial effusion in the gastrocnemius or semimembranosus bursa caused by lesion in posterior segment of medial meniscus is usually referred to as a?
- A. Pes Anserine bursitis
 - B. Baker's cyst
 - C. Bucket handle tear
 - D. Fabella syndrome
121. The Apprehension Test is used to determine a (an) _____.
- A. ACL tear
 - B. Meniscal tear
 - C. MCL tear
 - D. PCL tear
 - E. Patella subluxation
122. The Pes Anserine consists of the _____, _____, and _____.
- A. semimembranosus, biceps femoris, semitendinosus
 - B. vastus intermedius, vastus medialis, gracilis
 - C. biceps femoris, iliotibial tract, vastus lateralis
 - D. semitendinosus, sartorius, gracilis
 - E. sartorius, gracilis, semimembranosus
123. In what position is the lateral collateral ligament of the knee best palpated?
- A. full knee and hip internal rotation to increase tension of the ligament
 - B. 90° knee flexion, knee external rotation, and hip internal rotation to expose the area
 - C. 45° knee flexion, hip flexion, and hip internal rotation to decrease tension of the ligament
 - D. 90° knee flexion, and hip external rotation to apply varus force to the joint
 - E. full knee extension and hip external rotation provides the optimal position
124. Scapular retraction is accomplished by what muscle(s)?
- A. rhomboids
 - B. trapezius
 - C. latissimus dorsi
 - D. levator scapulae
 - E. deltoids
125. Upon palpation of an athlete's clavicle, the athletic trainer notes pain and tenderness one inch inferior from the concave edge at the site of the:
- A. SC joint
 - B. Acromion process
 - C. Coracoid process
 - D. Bicipital groove

126. To confirm their impression above, the athletic trainer performs a muscle test with resistance against which of the following movements:
- A. shoulder flexion with elbow flexed
 - B. shoulder abduction with elbow flexed
 - C. elbow extension with forearm supinated
 - D. shoulder extension with scapula stabilized
127. During your evaluation of an athlete's shoulder, you notice his left scapula is "winging". What is this indicative of?
- A. rhomboid weakness
 - B. deltoid weakness
 - C. serratus anterior weakness
 - D. upper trapezius weakness
128. Which of the following shoulder braces would not be indicated for someone who suffers from chronic subluxation of the GH joint?
- A. Duke-Wyre harness
 - B. Sawa Shoulder Orthosis
 - C. Shoulder Subluxation Inhibitor
 - D. Impact Shoulder Protector
129. The athlete may have difficulty performing what actions if the medial and lateral pectoral nerves are injured?
- A. flexion, adduction, and internal rotation of the upper arm
 - B. shoulder shrugs
 - C. abduction and external rotation of the upper arm
 - D. extension, internal rotation, and adduction of the upper arm
130. One sequela of shoulder dislocations/subluxations sometimes misdiagnosed is:
- A. SC joint dysfunction
 - B. Scapular over-ride
 - C. Fractures of the humeral head
 - D. Short head of the biceps tendon rupture
131. Weighted x-ray views along with A-P and lateral x-ray views can be used to assist in the evaluation of:
- A. a severe coracoclavicular ligament sprain
 - B. sternoclavicular joint separations
 - C. anterior glenohumeral dislocations
 - D. all shoulder subluxations
132. Which of the following is not part of the treatment guidelines for managing acute anterior shoulder dislocations?
- A. 1st time dislocators won't require any immobilization
 - B. reduce as soon as possible to overcome muscle spasm
 - C. the setting should provide adequate anesthesia and muscle relaxants
 - D. the reduction should be atraumatic to prevent fractures and other complications
133. Which of the following is not true concerning the traumatic onset of shoulder instability?
- A. is usually a unidirectional, anterior instability
 - B. often associated with Bank lesions
 - C. a high percentage of good to excellent result occur with conservative, non-operative rehabilitation in the younger, athletic population
 - D. in patients under 20 years old, there is a very high recurrence rate
134. Which of the following is true concerning conservative rehabilitation of the unstable shoulder?
- A. immobilization for 6-8 weeks is recommended to allow complete healing of the capsular and labral structures
 - B. early, aggressive ROM including abduction and EROT is necessary in order to prevent contractures of the capsule
 - C. strengthening of the biceps is to be avoided because it places excessive strain on the glenoid labrum
 - D. establishing static, proximal stability through scapulothoracic strengthening activities is an essential component
 - E. all of the above are correct
135. During acute Phase I rehabilitation of non-operative anterior shoulder dislocations the clinician must be careful not to place too much stress on the anterior capsule via:
- A. abduction and external rotation
 - B. horizontal extension

- C. adduction and internal rotation
- D. extension
- E. flexion

136. Typical findings in EIA are:

- A. family history of asthma
- B. hayfever
- C. frequent coughs with and/or after exercise
- D. significant fatigue at the beginning of an activity event
- E. all of the above

137. In the athlete, a key trigger of an asthmatic attack is:

- A. exercise in cold dry air
- B. the first 8 minutes of an activity session
- C. concomitant cold or infection
- D. fine pollens in the air
- E. all of the above

138. Auricular hematoma is a common problem in sports medicine. Which one of the following statements constitutes appropriate management?

- A. the hematoma should be watched for 48-72 hours to allow reabsorption, and treatment with anti-inflammatory agents should be started for pain management
- B. aseptic aspiration of the hematoma should be done within 24 hours of injury, and compression dressing should be applied
- C. if athlete appears 7 to 10 days after injury, incision and drainage can usually produce good results
- D. when compression dressing is used, reexamine in 3-5 days.

139. Anterior epistaxis accounts for 90% of episodes of nasal bleeding. Which one of the following statements is not true for its management?

- A. when a bleeding site is identified, cauterize with silver nitrate can be done and topical antibiotic ointment can then be applied
- B. applying a vasoconstrictor-soaked pledget initially controls anterior epistaxis.
- C. anterior nasal packing is indicated when no specific bleeding site is identified or when bleeding is unresponsive or inaccessible to cautery
- D. an athlete with posttraumatic anterior epistaxis whose bleeding has subsided and who has no obvious impairment or deformity requires no further follow-up

140. When treating an athlete with an avulsed tooth, appropriate steps include:

- A. start the athlete on analgesic agents, store the tooth in milk, and recommend follow up with an endodontist the next morning
- B. advise the athlete to store the tooth in cold, sterile water until an appointment with a dentist can be obtained
- C. handle the tooth by the crown, clean the root of the tooth with milk, saline saliva, and attempt to reimplant the tooth as soon as possible
- D. allow the athlete to finish competing, store the tooth in saline, and recommend follow-up with an endodontist within 24 hours

141. All of the following statements concerning exercise-associated GI bleeding are true, EXCEPT:

- A. the site of bleeding is usually found to be in the small intestine
- B. ischemia of the intestinal mucosa is the most likely etiology
- C. as exercise intensity increases, the incident of Hem occult-positive conversion is found to increase
- D. effective therapy may include reducing level of activity, then gradually advancing exercise intensity
- E. large quantities of nonsteroidal anti-inflammatory drugs may be a contributing factor to the development of mucosal inflammation and/or ulcers

142. A football player may return to competition _____ weeks after the onset of symptoms of infectious mononucleosis, if splenomegaly is not present.

- A. 1
- B. 4
- C. 8
- D. 16
- E. 24

143. The most immediate, serious, early complication of renal trauma is

- A. hemorrhagic shock
- B. polyuria
- C. dysuria

D. infection hypertension

144. In case of suspected testicular torsion

- A. evaluation can be delayed up to 24 hours to see if symptoms resolve
- B. evaluation should include surgical exploration early to salvage the testicle
- C. diagnosis can consistently be made by using sonography
- D. diagnosis can easily be made by using urinalysis

145. Exercise-induced microscopic hematuria

- A. has been reported in otherwise normal athletes
- B. may be due to increased permeability of the glomerulus
- C. may be due to other conditions, such as infections, kidney stone, or interstitial nephritis
- D. may be investigated by repeating urinalysis 24-48 hours after the athlete abstains from exercise
- E. all of the above

146. Traumatic urethritis

- A. is more common in female patients
- B. may be due to saddle trauma in the bicyclist
- C. requires antibiotic therapy
- D. may be confused with prostatic hypertrophy due to symptoms of dysuria, pyuria, and outflow obstruction
- E. b and d

147. 1. Drugs that are administered _____ must go through the first-pass effect.

- A. sublingually
- B. through inhalation
- C. intravenously
- D. orally

148. _____ usually enter the blood stream within 30 minutes.

- A. inhaled medications
- B. subcutaneous injected medications
- C. sublingual administered medications
- D. oral medications

149. Which of the following is not an invasive route of drug administration?

- A. inhalation
- B. subcutaneous injections
- C. rectal
- D. intra-arterial injections

150. The half-life of acetaminophen is two hours. If 500 mg of acetaminophen is taken, how many milligrams will be left in the body two hours after the initial dose?

- A. 100
- B. 200
- C. 250
- D. 350

151. Which of the following is a trade name for a drug?

- A. acetaminophen
- B. ketoprofen
- C. tolnaftate
- D. Tylenol

152. Which of the following is not effective in the treatment of inflammation for soft tissue injuries?

- A. Orudis KT
- B. Tylenol
- C. Advil
- D. Aleve

153. Over-the-counter NSAID's should be used for a maximum of _____ days when used for the treatment of inflammation.

- A. 3 days

- B. 7 days
- C. 10 days
- D. 14 days

154. Which is a common drug used for treatment of musculoskeletal injuries?

- A. Bayer Aspirin
- B. Tylenol
- C. Benadryl
- D. Ibuprofen

155. Which of the following is not an OTC NSAIDs?

- A. Aleve
- B. Advil
- C. Lodine
- D. Nuprin

156. Rash, rubor skin and itching are examples of:

- A. systemic adverse drug reaction
- B. local adverse drug reaction
- C. toxic drug reaction
- D. antipruritic reaction

157. The liver plays a role in which of the following?

- A. drug absorption
- B. drug distribution
- C. drug elimination
- D. drug metabolism

158. After injecting an Epi-Pen it should be held in place for how many seconds before releasing?

- A. 5
- B. 10
- C. 15
- D. 20

159. The bite test enables the certified athletic trainer to assess for:

- A. A nasal or TMJ fracture
- B. Malocclusion or pain caused by a dislocation or fracture
- C. Orbital or frontal fracture
- D. Palate fracture

160. Mental status testing of an athlete with a possible concussion includes the following tests:

- A. Reflexes, somatic, cognitive, concentration
- B. Concentration, affective, reflexes
- C. Neurological, orientation
- D. Orientation, immediate memory, concentration

161. The Serial 7 test is used to assess

- A. Concentration and analytical skills
- B. Balance and coordination skills
- C. Concentration and immediate memory skills
- D. Cognitive and somatic skills

162. The dura mater is

- A. The inner most covering of the brain
- B. The outermost covering of the brain
- C. The thin membrane in direct contact with the brain
- D. The space beneath the pia mater

163. To test the trochlear nerve of an athlete suffering from a suspected concussion, you would instruct the athlete to:

- A. Identify a particular smell
- B. Demonstrate balance by standing on one leg
- C. Smile or frown

D. Look down and toward their nose

164. A contrecoup-type injury occurs when:

- A. The head is moving and makes contact with an immovable or more slowly moving object
- B. The head is stationary and is struck by a moving object
- C. The head is rotating to the right or left
- D. The head is hit only in the temporal region

165. Cheyne-Stokes respiration is characterized by:

- A. Rhythmic fluctuation between hypernea and apnea
- B. Hypernea only following a concussion
- C. Apnea only following a concussion
- D. Hyperventilation following a concussion

166. Post-traumatic amnesia results in the athlete's inability to:

- A. Recall events after the head trauma
- B. Recall events after referral
- C. Recall his/her name
- D. Recall recent events before the head injury

167. Decorticate posturing occurs with injury:

- A. Within the brain stem
- B. Below the brain stem
- C. Above the brain stem
- D. At the level of C1-C3

168. An athlete suffering from a space-occupying hematoma in the brain region will display:

- A. Signs similar to shock
- B. Low blood pressure and heart rate
- C. Low blood pressure, increased heart rate, and changes in respiration
- D. High blood pressure, decreased heart rate and changes in respiration

SEATA Student Athletic Trainers *Competencies in Athletic Training Workshop* Multiple Choice Answer Key

1. D.	35. A.	69. D.	103.D.	137.E.
2. C.	36. C.	70. C.	104.D.	138.B.
3. A.	37. A.	71. C.	105.E.	139.B.
4. A.	38. B.	72. D.	106.D.	140.C.
5. B.	39. C.	73. C.	107.D.	141.A.
6. B.	40. D.	74. C.	108.C.	142.B.
7. C.	41. C.	75. A.	109.C.	143.A.
8. D.	42. B.	76. B.	110.D.	144.B.
9. D.	43. D.	77. B.	111.A.	145.E.
10. C.	44. A.	78. A.	112.A.	146.E.
11. C.	45. C.	79. B.	113.D.	147.D.
12. D.	46. A.	80. B.	114.B.	148.D.
13. E.	47. B.	81. C.	115.C.	149.A.
14. D.	48. D.	82. B.	116.A.	150.C.
15. B.	49. B.	83. D.	117.A.	151.D.
16. C.	50. A.	84. A.	118.D.	152.A.
17. D.	51. C.	85. B.	119.A.	153.C.
18. B.	52. D.	86. D.	120.B.	154.D.
19. C.	53. A.	87. B.	121.E.	155.C.
20. C.	54. B.	88. D.	122.D.	156.B.
21. D.	55. B.	89. C.	123.D.	157.C.
22. D.	56. C.	90. D.	124.A.	158.B.
23. B.	57. D.	91. A.	125.C.	159.B.
24. B.	58. A.	92. D.	126.A.	160.D.
25. A.	59. A.	93. D.	127.C.	161.A.
26. D.	60. B.	94. B.	128.D.	162.B.
27. C.	61. B.	95. D.	129.A.	163.D.
28. C.	62. E.	96. A.	130.C.	164.A.
29. A.	63. B.	97. B.	131.A.	165.A.
30. B.	64. C.	98. C.	132.A.	166.A.
31. A.	65. D.	99. D.	133.C.	167.C.
32. D.	66. B.	100.B.	134.D.	168.D.
33. E.	67. C.	101.A.	135.A.	
34. A.	68. E.	102.B.	136.E.	