

Advanced Athletic Training
KIN 3492
Exam 2
September 28, 2011

Multiple Choice: 1 point each

1. All but which of the following structures are located in the posterior compartment?
 - A) Flexor hallucis longus
 - B) Peroneus longus
 - C) Posterior tibialis
 - D) Flexor digitorum longus

2. Which of the following is NOT a function of the fibula?
 - A) It serves as a site of muscular origin and attachment.
 - B) It serves as a site of ligamentous attachment.
 - C) It provides medial stability to the ankle mortise.
 - D) It serves as a pulley to increase the efficiency of the muscles that run posteriorly to it.

3. Which of the following ligaments are assessed using the anterior drawer test of the ankle?
 - A) Anterior talofibular ligament
 - B) Anterior tibiofibular ligament
 - C) Calcaneofibular ligament
 - D) Deltoid ligament

4. In order for stress tests to achieve a high reliability, they require attention to detail when performing the test. Which of the following is the appropriate way to determine a Kleiger test?
 - A) The knee is bent and the foot and tibia are externally rotated while the examiner maintains a stable femur.
 - B) The foot and talus are internally rotated while the examiner maintains a stable leg.
 - C) The foot and talus are externally rotated while the examiner maintains a stable leg.
 - D) The foot is plantar flexed and dorsiflexed while the examiner maintains a stable leg.

5. The subtalar joint allows for which movements at the ankle?
 - A) Internal and external rotation
 - B) Inversion and eversion
 - C) Plantar flexion and dorsiflexion
 - D) Flexion and extension

6. The anterior compartment contains all but which of the following?
 - A) Anterior tibialis
 - B) Peroneus tertius
 - C) Extensor hallucis longus
 - D) Peroneus longus

7. The lateral compartment contains all but which of the following?
 - A) Peroneus longus
 - B) Peroneus brevis
 - C) Peroneus tertius
 - D) Peroneal artery

8. An athlete presents in the athletic training room with pain in the shin area. Which of the following would give you the impression that the injury may be a stress fracture?
 - A) Diffuse pain in the area of the shin
 - B) Point tenderness in the area of the shin
 - C) Pain with activity
 - D) Night pain

9. Which of the following are NOT signs/symptoms of anterior compartment syndrome?
 - A) Paresthesia in the web space between the first and second toes
 - B) Decreased dorsiflexion strength
 - C) Absence of the dorsalis pedis pulse
 - D) Increased dorsiflexion strength

10. Which structure disappears with an ankle sprain?
 - A) Sinus tarsi
 - B) Lateral malleolus
 - C) Base of the fifth metatarsal
 - D) Dorsalis pedis pulse

11. How long before stress fractures are visible on x-ray?
 - A) 1 week
 - B) 2 weeks
 - C) 3 weeks
 - D) 6 weeks

12. The articulation of what three bones forms the talocrural joint?
- A) Calcaneus, tibia, and fibula
 - B) Talus, tibia, and fibula
 - C) Talus, calcaneus, and fibula
 - D) Navicular, tibia, and fibula
13. The talocrural joint is a modified synovial hinge joint with one degree of freedom that results in which two movements?
- A) Inversion and eversion
 - B) Dorsiflexion and plantar flexion
 - C) Flexion and extension
 - D) Pronation and supination
14. The anterior talofibular ligament limits anterior translation of the talus on the tibia and tightens to provide support during what motion?
- A) Eversion
 - B) Inversion
 - C) Plantar flexion
 - D) Dorsiflexion
15. Which of the following ligaments does NOT form part of the deltoid ligament?
- A) Anterior tibiofibular ligament
 - B) Tibiocalcaneal ligament
 - C) Posterior tibiotalar ligament
 - D) Tibionavicular ligament
16. Correct hand positioning for the anterior drawer test includes one hand stabilizing the leg while the other hand cups the calcaneus with the forearm supporting the foot in what position?
- A) Neutral
 - B) Slight plantar flexion (10° to 20°)
 - C) Slight dorsiflexion (10° to 20°)
 - D) Slight inversion (5° to 10°)
17. Which of the following describes correct patient positioning for the Thompson Test?
- A) Supine with the foot on the table
 - B) Supine with the foot off the table
 - C) Prone with the foot on the table
 - D) Prone with the foot off the table

Fill in the Blank/Short Answer

18. Explain in detail what Acute Anterior Compartment Syndrome is: including mechanism of injury, symptoms and treatment protocol. (5)

19. Name the most important soft tissue structure to the talocalcaneonavicular joint that also is important to the medial longitudinal arch (1).

20. Take a detailed history of an athlete who complains of foot pain with no known mechanism (4).

21. What is the treatment plan for plantar fasciitis? (2)

22. List the muscles of the lateral compartment of the lower leg and what is the primary function of the group? (4)

23. List the predisposing factors that can result in metatarsal stress fractures. (3)

24. What is Hallux Valgus? (2)

25. What is the difference between hard corns and soft corns? (2)

26. What is the mechanism of injury of a syndesmosis ankle injury? (3)

27. What are the five P's used to describe the signs and symptoms of compartment syndrome?(2.5)

28. The most common site for tendon pathology in the Achilles is located where? (1)

Matching: 1 point each

- | | |
|---------------------------------|---|
| _____ Pes Cavus | a. Greater than 10mm |
| _____ Morton's Toe | b. hyperextension of MTP/flexion of DIP & PIP joints |
| _____ Jone's Fracture | c. hyperextension of MTP & DIP jts, Flexion of PIP joints |
| _____ Subtalar Joint | d. Central slip is the largest |
| _____ Hyperpronation | e. avascular site in the foot where Fx occur |
| _____ Firm End Point | f. 1 st MT is abnormally short |
| _____ Sinus Tarsi | g. supination and pronation |
| _____ Claw Toes | h. pulling a piece of bone from the boney cortex |
| _____ Hammer Toe | i. high medial longitudinal arch |
| _____ 1 st MTP Joint | j. between the 1 st and 2 nd MT, hard to find |
| _____ Navicular | k. Hard or bony |
| _____ Plantar Fascia | l. Normal depression on lateral aspect of foot |
| _____ Dorsal Pedial Pulse | m. 2-3 sesoid bones may be located |
| _____ Avulsion Fracture | n. Apex of medial longitudinal arch |

Special Tests: Name pathology being tested and what is a possible implication of a positive sign.

2 points each

Anterior Drawer of Ankle:

Talar Tilt (inversion):

Intermetatarsal Glide Test:

Navicular Drop Test:

Valgus Stress Test:

Oral Practical #1

Name _____

Anatomy:

Please palpation the following:

- | | | |
|--|-----------|----------|
| 1. Sinus Tarsi | Yes _____ | No _____ |
| 2. Base of the 5 th Metatarsal | Yes _____ | No _____ |
| 3. Navicular tubercle | Yes _____ | No _____ |
| 4. Sustentaculum Tali | Yes _____ | No _____ |
| 5. Transverse Metatarsal arch | Yes _____ | No _____ |
| 6. DIP joint of 3 rd Metatarsal | Yes _____ | No _____ |
| 7. Sinus Tarsi | Yes _____ | No _____ |
| 8. Calcaneofibular Ligament | Yes _____ | No _____ |

II. Perform the following brake test or resisted manual muscle test for:

Hand Placement	Performed Correctly
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Extensor Hallicus Longus:

Soleus:

III. Perform the following special tests:

Hand Placement	Test Performance
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1. Intermetatarsal Glide Test :
2. Talar Tilt (Eversion):
3. Thompson's Test:
4. Valgus Stress Test of Great Toe –