Lower Extremity Human Growth Anatomy Review

Date: Sunday, October 2, 2016  
Time: 8:15 AM - 11:30 AM

Session ID & Location: 9D: Offsite - Hosted at UTC  
CEU Eligibility: 0.30

Presented by: June Hanks, PT, DPT, PhD, CWS, CLT; Jeremiah Tate, PT, PhD

Session Description: This course will provide clinical application related to physical therapy examination evaluation, and intervention of the lower extremity using prosected cadavers. The course will provide guided "hands-on" review the gross anatomy of the muscles, nerves, vessels and joints of the lower extremity with discussion of common pathologies. This course is not open to students.

At the conclusion of this course, a participant should be able to:

1. Describe the specific origins, insertions, actions, innervations, and fiber shape and orientation of the muscles of the lower extremity.
2. Identify the muscles, primary nerves and blood vessels of the area studied using cadaver prosected material.
3. Describe the circulatory system of the lower extremity to include the arterial, venous, and selected lymphatic components.
4. Know and describe the innervation to the muscles and joints of the lower extremity.
5. Apply anatomical knowledge to assist in the physical therapy examination, evaluation, and intervention in common lower extremity pathologies.

Presenter Bio(s):

Dr. June Hanks, PT, PhD, DPT, CWS, CLT is an Associate Professor in the University of Tennessee at Chattanooga Doctor of Physical Therapy Program. Teaching responsibilities include cardiopulmonary, wound management and human gross anatomy. She received her PhD in Exercise Science at the University of Tennessee. June maintains physical therapy practice in outpatient and home health settings.

Dr. Jeremiah Tate, PT, PhD is a US Foundation Assistant Professor in the University of Tennessee at Chattanooga Doctor of Physical Therapy Program. His teaching responsibilities include human gross anatomy, orthopedics (spine and upper extremity) and movement disorders. He received his master's degree in Human Movement Science from The University of North Carolina at Chapel Hill in 2005 and PhD in Biomechanics and Sports Medicine from The University of Tennessee in 2010. Jeremiah has over 16 years of physical therapy experience and currently practices outpatient physical therapy within the University of Tennessee at Chattanooga’s Student Health Service.
1. Which of the following muscles is capable of acting as a hip extensor, abductor, and external rotator?
   a. gluteus maximus
   b. gluteus medius
   c. gluteus minimus
   d. piriformis

2. Which of the following arteries is **MOST** important in supplying blood supply to the neck and head of the femur?
   a. lateral circumflex artery
   b. *medial circumflex artery*
   c. obturator artery
   d. external iliac artery

3. Which is the primary ligament that checks the motion of the sacrum created by body weight?
   a. sacrotuberous
   b. sacrospinous
   c. anterior sacroiliac
   d. posterior sacroiliac

4. The specific name of the nerve which follows the femoral artery into the adductor canal is the:
   a. sural nerve
   b. obturator nerve
   c. anterior cutaneous nerve
   d. *saphenous nerve*

5. The ankle ligament most commonly injured in a plantar flexion/inversion mechanism is the:
   a. anterior talofibular
   b. calcaneofibular
   c. anterior tibiofibular
   d. posterior talofibular

6. Which is the primary ligament that provides medial stability to the patellofemoral joint?
   a. medial retinaculum
   b. *medial patellofemoral ligament*
   c. medial collateral ligament
   d. ligamentum patellum
7. A patient recently increased running distance significantly. The patient reports numbness about the plantar aspect of the foot during her runs. The patient is tender to palpation along the medial leg and demonstrates muscle weakness and pain with ankle inversion and toe flexion. This patient is likely suffering from a problem in which compartment of the leg?
   a. anterior compartment
   b. lateral compartment
   c. superficial posterior compartment
   d. deep posterior compartment

8. Which hip ligament is the primary ligament that limits (ie, checks) hip extension?
   a. iliopofemoral
   b. pubofemoral
   c. ischiofemoral
   d. posterior joint capsule

9. Which of the following pairs of extrinsic foot muscles are responsible for providing dynamic support of the medial longitudinal arch?
   a. flexor hallucis longus and posterior tibialis
   b. flexor digitorum longus and posterior tibialis
   c. posterior tibialis and abductor hallucis
   d. flexor hallucis and digitorum longi

10. (True or False): Rupture of the Achilles tendon would result in an inability to actively plantarflex the foot.
    a. True
    b. False
Handouts were not provided for this session. If made available, the handouts will be provided onsite and/or in a post meeting supplement of this book.