

Lower Limb Muscles Quiz Answer Key PDF

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Which muscles are part of the hamstring group? (Select all that apply)

- A. Biceps femoris ✓
- B. Semitendinosus ✓
- C. Semimembranosus ✓
- D. Vastus lateralis

What condition is characterized by increased pressure within a muscle compartment?

- A. Tendinitis
- B. Compartment syndrome ✓
- C. Muscle strain
- D. Ligament sprain

Which muscle is known as the "tailor's muscle"?

- A. Sartorius ✓
- B. Rectus femoris
- C. Gracilis
- D. Soleus

Which nerve innervates the anterior compartment of the thigh?

- A. Sciatic nerve
- B. Femoral nerve ✓
- C. Obturator nerve
- D. Tibia nerve

Which muscle is responsible for hip abduction?

- A. Gluteus maximus
- B. Gluteus medius ✓**
- C. Adductor longus
- D. Iliopsoas

Which muscles are primarily responsible for knee extension? (Select all that apply)

- A. Vastus medialis ✓**
- B. Vastus lateralis ✓**
- C. Biceps femoris
- D. Rectus femoris ✓**

Which of the following muscles are involved in hip flexation? (Select all that apply)

- A. Iliopsoas ✓**
- B. Rectus femoris ✓**
- C. Gluteus maximus
- D. Sartorius ✓**

What are the potential consequences of an untreated compartment syndrome in the lower limb?

The potential consequences of untreated compartment syndrome in the lower limb include muscle necrosis, permanent functional impairment, and limb loss.

Explain the role of the gluteus maximus in lower limb movement.

The gluteus maximus is primarily responsible for extending the hip joint, allowing for powerful movements like standing up from a seated position, climbing stairs, and propelling the body forward during running.

Discuss the rehabilitation strategies for a patient recovering from a hamstring strain.

The rehabilitation strategies for a patient recovering from a hamstring strain include: 1) Initial RICE protocol (Rest, Ice, Compression, Elevation) to reduce pain and swelling; 2) Gradual introduction of stretching exercises to improve flexibility; 3) Strengthening exercises focusing on the hamstrings and surrounding muscles; 4) Functional training and sport-specific drills to prepare for return to activity; 5) Monitoring and adjusting the rehabilitation program based on the patient's progress.

What are common symptoms of a muscle strain? (Select all that apply)

- A. Swelling ✓**
- B. Bruising ✓**
- C. Increased range of motion
- D. Pain ✓**

What is the primary function of the hamstring muscles?

- A. Hip extension and knee flexation ✓**
- B. Hip flexation and knee extension
- C. Hip abduction and knee rotation
- D. Hip adduction and knee stabilization

Which artery supplies blood to the thigh?

- A. Popliteal artery
- B. Femoral artery ✓**
- C. Tibia artery
- D. Radia artery

How does the sciatic nerve contribute to the functionality of the lower limb muscles?

The sciatic nerve contributes to the functionality of the lower limb muscles by providing motor innervation to the hamstrings and muscles of the lower leg and foot, as well as sensory innervation to the skin of the leg and foot.

Which nerves are involved in the innervation of the lower leg? (Select all that apply)

- A. Tibia nerve ✓**
- B. Femoral nerve
- C. Peroneal nerve ✓**
- D. Obturator nerve

Describe the process and importance of warming up before engaging in physical activities involving the lower limb muscles.

The process of warming up involves performing dynamic stretches and light aerobic exercises targeting the lower limb muscles to increase blood flow, enhance flexibility, and prepare the body for more intense physical activity, thereby reducing the risk of injury.

Identify and explain the significance of the popliteal artery in the circulatory system of the lower limb.

The popliteal artery is significant as it provides essential blood supply to the knee and lower leg, branching into arteries that serve the foot.

Which muscle is part of the quadriceps group?

- A. Biceps femoris
- B. Rectus femoris ✓**
- C. Gluteus maximus
- D. Sartorius

Which muscles contribute to plantar flexation of the foot? (Select all that apply)

- A. Gastrocnemius ✓**
- B. Soleus ✓**
- C. Tibialis anterior
- D. Peroneus longus ✓**

What is the primary action of the gastrocnemius muscle?

- A. Knee extension
- B. Hip flexation
- C. Plantar flexation ✓**
- D. Dorsiflexation