

HCS 1050
Muscles of the Lower Body
/38 TOTAL MARKS

Why is the foot so **prone** to injury in comparison to other body parts? (1 mark)

List two functions of the foot: (2 marks)

The Foot consists of _____ bones, _____ **phalangeal**, _____ **metatarsal** and _____ **tarsal**. (1 mark)
What is the primary function of toes? (1 mark)

The *metatarsals* are _____ bones that lie between and articulate with the tarsals and phalanges, thus forming two _____ joints. (1 mark)

What is so important about the **first metatarsal**? (1 mark)

There are _____ *tarsal* bones located between the _____ and the metatarsals. (1 mark)

Why are the *tarsal* bones so important? (1 mark)

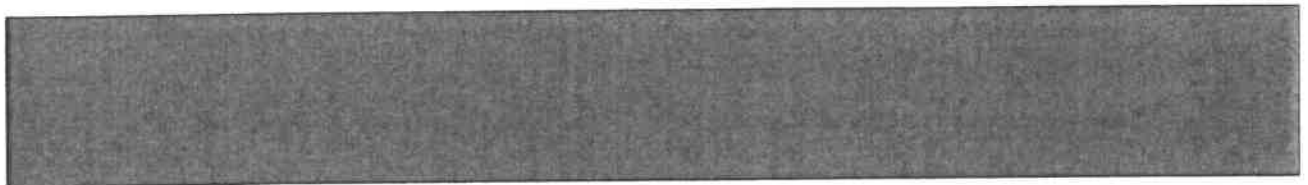
List the **tarsal** bones below: (1 mark)

What are the functions of the arches? (3 marks)

List the movements that are specific to the foot and the ankle: (2 marks)

What is the *Plantar Fascia*? What is its main function? (1 mark)

The muscles of the lower leg are typically divided into **extrinsic** muscles and **intrinsic** muscles. (2 marks)

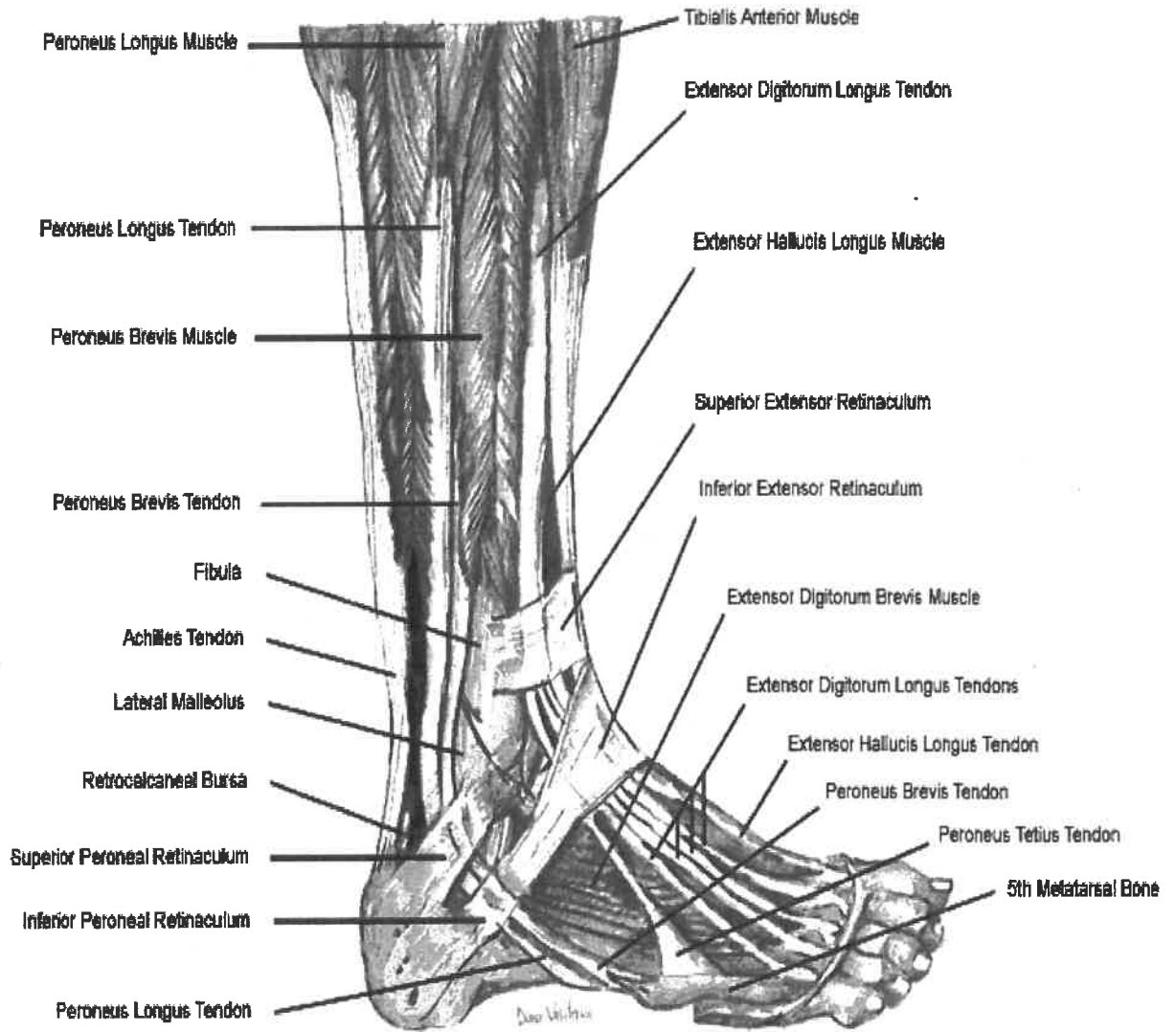


Extrinsic muscles originate _____ the foot and insert _____ the foot.

Intrinsic muscles originate and insert _____ the foot.



Side View of Foot Muscles & Tendons



There are _____ extrinsic muscles of the foot and ankle that are contained in _____ well-defined compartments of the lower leg: (1 mark)

Anterior Component (4 muscles):

1. Tibialis Anterior

Muscle Action:

2. Extensor Digitorum Longus

Muscle Action:

3. Extensor Hallucis Longus

Muscle Action:

The Peroneals

4. Peroneus Tertius

Muscle Action:

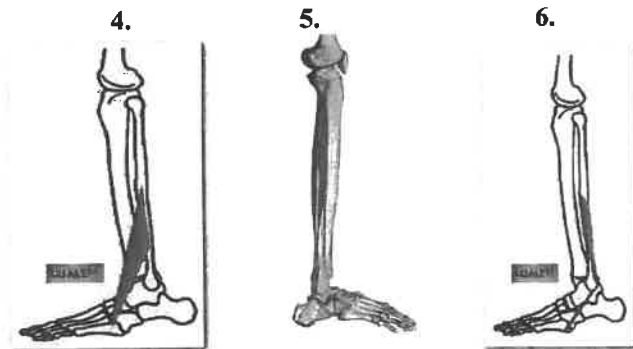
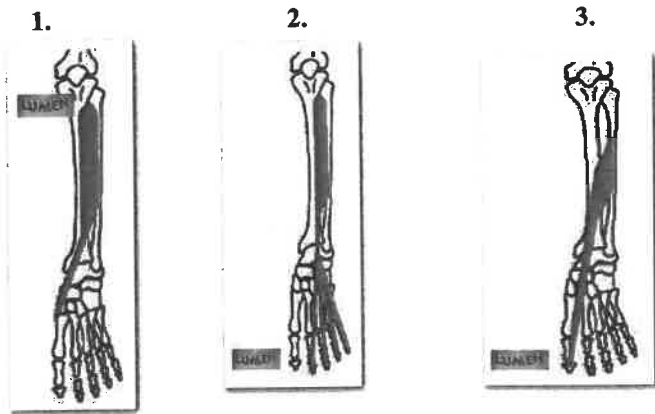
Lateral Compartment (2 muscles):

5. Peroneus Longus

Muscle Action:

6. Peroneus Brevis

Muscle Action:



Superficial Posterior Compartment (3 muscles): - muscles of the calf.

1. **Gastrocnemius**

Muscle Action:

2. **Plantaris** – look at in more detail in higher classes

3. **Soleus**

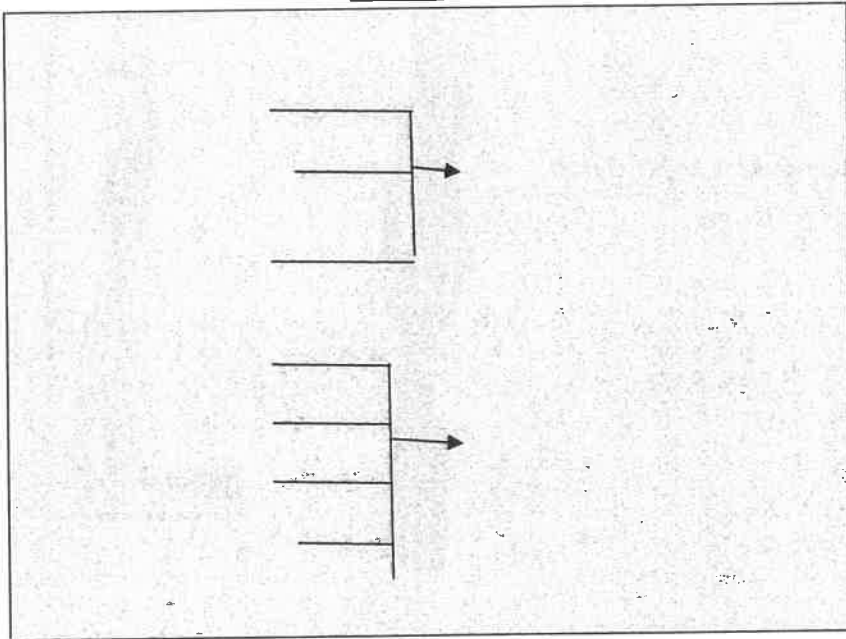
Muscle Action:



What is the most common ligament to sprain in your ankle and why? (2 marks)

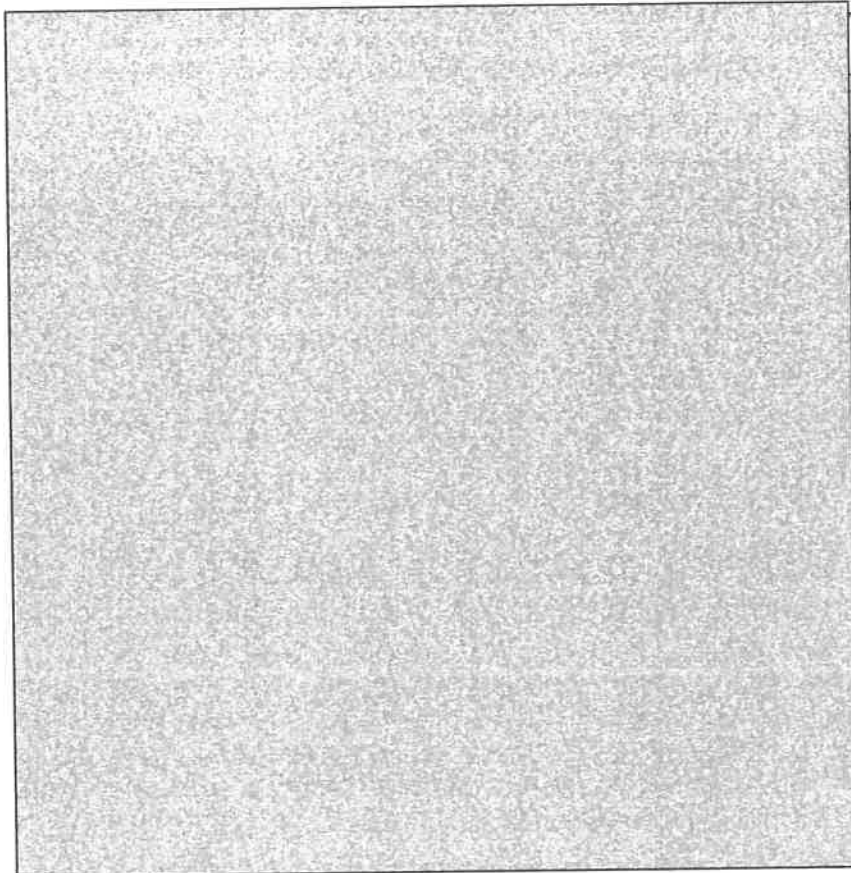
Anatomy of the Knee, Thigh, Hip and groin – class notes

In this section we will look at _____ muscles of the upper leg:



- Gluteus Maximus**
- Biceps femoris**
- Semimembranosus “Hamstring” group**
- Semitendinosus**
- Rectus Femoris**
- Vastus Medialis “Quadriceps” group**
- Vastus Lateralis**
- Vastus Intermedius**

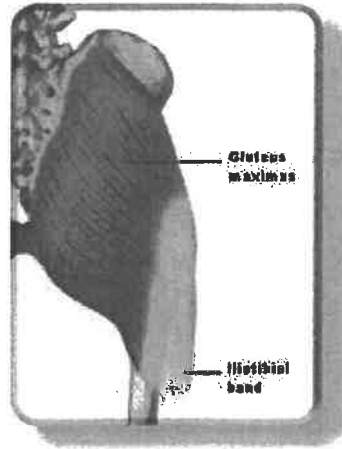
All together we look closely at 8 muscles.



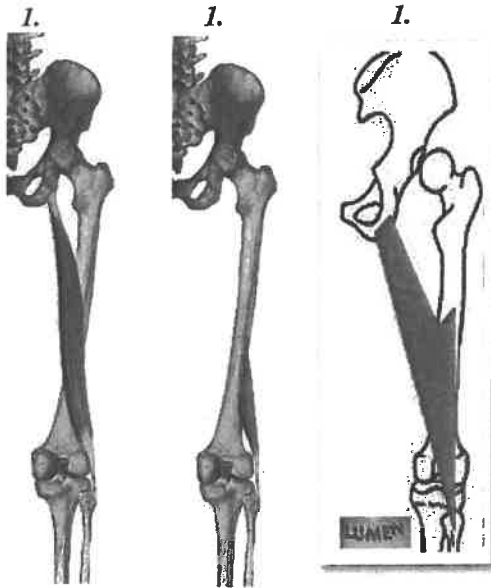
- Tibialis Anterior**
- Extensor Digitorum Longus**
- Extensor Hallucis Longus**
- Gastrocnemius**
- Soleus**
- The Peroneals**
- Peroneus Longus**
- Peroneus Tertius**
- Peroneus Brevis**

Muscle: Gluteus Maximus

Muscles Action:



The Hamstring group: (3 muscles)



1. Muscle: Biceps Femoris

Muscles Action:



2. Muscle: Semimembranosus

Muscles Action:

3.



3. Muscle: Semitendinosus

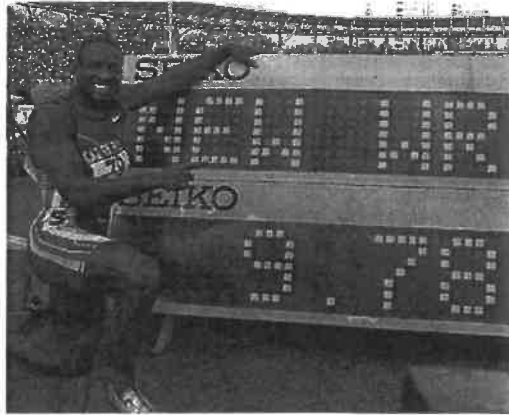
Muscles Action:

The "Quadriceps" group:

The _____ otherwise known as the _____, is a group of _____ muscles that make up the front portion of the thigh.

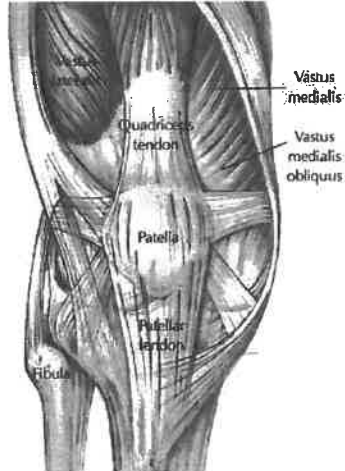
Muscle: Rectus Femoris

Muscle Action:



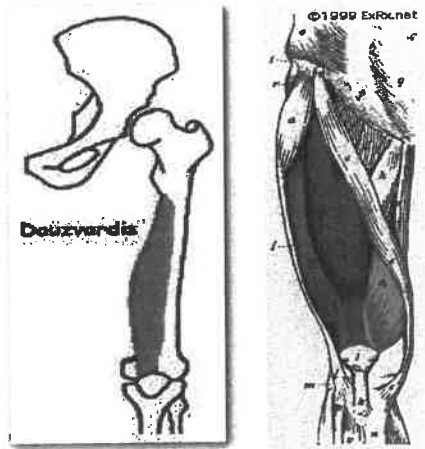
Muscle: Vastus Lateralis

Muscle actions:



Muscle: Vastus Medialis

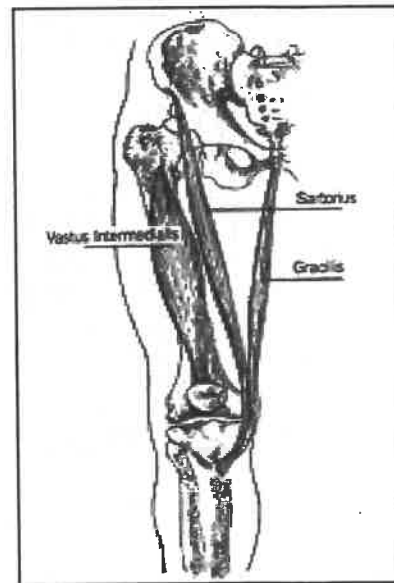
Muscle Action:



Muscle: Vastus Intermedialis

Muscle Action:

The Vastus Intermedialis lies beneath the rectus femoris



Anatomy – The Knee

The knee joint, one of **the largest** joints in the body is a _____, _____ synovial joint and is often referred to as a _____ joint. (1 mark)

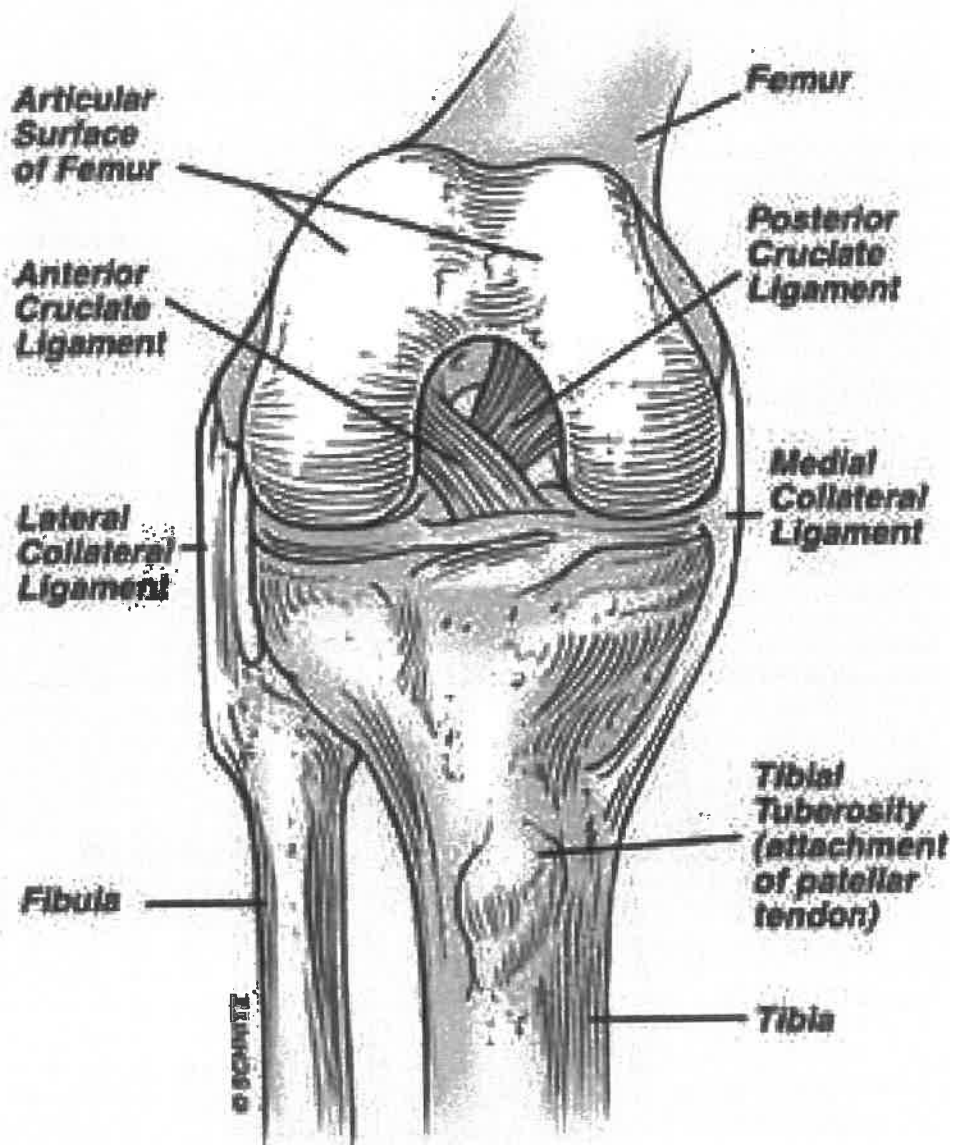
What is the main function of the MCL (_____) and the LCL (_____)? (2 marks)

In the middle of the knee joint are two ligaments known as the ACL (_____) and PCL (_____). These two ligaments actually _____ each other. (1 mark)

What is the main function of the ACL and PCL? (2 marks)

Primary movements of the knee: _____
(1 mark)





What two bones in the leg rotate when the knee flexes and extends? (1 mark) _____

What happens to the leg when the knee flexes? (1 mark) _____

What happens to the leg when the knee extends? (1 mark) _____

List all the possible pieces of anatomy that could affect the knee joint: (2 marks) _____
