

Introduction

In this lab you are to locate and draw the gastrocnemius muscle of the pig. In man this is the large calf muscle which terminates in the large Achilles tendon. This tendon then inserts on the heel bone. In the pig the same thing occurs, however, you must be careful when locating the femur, the tibia, the fibula, and the calf muscle area on a pig. The gastrocnemius is covered by a thin sheet of muscle, the biceps femoris.

Directions for the Dissection

1. Work on the left side of the animal. Preserve the right side for circulatory and nervous system dissection. Skin the left leg. Cut carefully through the skin. Make a circle cut around the upper leg where it blends into the trunk of the body. The cut should be about a one to two mm in depth. Cut from the top of the circle downward towards the foot. Now you should be able to remove the skin from the leg.
2. Clear away any fascia which covers the muscles of the shank. Fascia will appear solid sheet-like (no fibers) and will be from clear to white in color.
3. Refer to Figure 1 Lateral View of the Leg. Notice the biceps femoris covers the origin of the gastrocnemius. The biceps femoris should be removed carefully. The key to success is that muscle tissue is fibrous and the direction the fibers run helps in identifying the muscle. Biceps femoris run obliquely; gastrocnemius fibers run parallel to the bone.
4. The gastrocnemius originates on the lower end of the femur. It inserts by the Achilles tendon on the calcaneus, the heel bone. This muscle extends the foot.
5. Isolate the muscle at the origin and insertion, include the tendon. Have your dissection okayed at this point. The only muscle fiber that can be cut is the biceps femoris. A good dissection will reveal a major nerve trunk running through the muscle in it's upper one-third.
6. Make a drawing of the lower leg showing the foot, knee, and upper leg.. Label the following parts in your drawing: body of the muscle, origin and insertion points of the gastrocnemius, Achilles tendon, femur, calcaneus, and nerve.

Figure 1 Lateral View

