CADAVER DISSECTION – ANTERIOR THIGH

All of the terms indicated below in **BOLD** print should be identified during the student’s oral presentation on this region.

**PROCEDURE:**
I. SURFACE ANATOMICAL LANDMARKS – Prior to dissection, identify the following surface anatomical landmarks of the anterior thigh: **anterior superior iliac spine, patella.**

II. SUPERFICIAL VESSELS & NERVES – Determine the location of any major superficial veins or nerves in your area of dissection to avoid damaging these structures as you dissect.
   - The great saphenous vein is located on the medial surface of the lower limb. It passes through the saphenous opening, an opening in the deep fascia, in the inguinal area to connect with the femoral vein.

III. REMOVAL OF SKIN – Using the following steps, remove the skin from the anterior thigh.

   A. Incision Lines – Use a marking pencil to outline the incision lines (illustrated on the handout). Use a scalpel blade to cut through the skin. Insert a smooth probe under the skin along the remaining incision lines (instructor will demonstrate). When making your remaining incision, only cut to the smooth probe to avoid damaging superficial structures deep to the skin.

   - Proximal Incision Line – Cut the skin from a point one centimeter below the anterior superior iliac spine – in a medial and inferior direction – approximately one centimeter below the inguinal ligament (junctions between the abdomen and the thigh) – to the medial side of the thigh.
   * Avoid cutting the great saphenous vein on the medial side of the thigh.

   - Anterior Incision Line – Cut the skin from the midpoint of the proximal incision line along the anterior midline of the thigh to a point one centimeter proximal to the patella.

   - Distal Incision Line – Cut the skin medially and laterally from the end of the anterior incision line. * Avoid cutting the great saphenous vein on the medial side of the thigh.

   B. Locate the Epimysium of the Anterior Thigh Muscles – Use a smooth probe to locate the separation between the superficial fascia and deep fascia (termed fascia lata in the thigh). Using the smooth probe and your fingers (avoid using the scalpel blade unless absolutely necessary), remove the skin from the anterior incision line in both a medial and lateral direction.
   * Locate the great saphenous vein in the subcutaneous tissue on the medial side of the thigh and expose the vein from the knee to its entrance into the femoral vein.

IV. MUSCLE IDENTIFICATION AND SEPARATION:
To expose the muscles on the anterior side of the thigh, make a longitudinal cut through the **fascia lata** up to the **saphenous opening**. Except for the lateral portion of the fascia lata, the
iliotibial tract, the fascia lata may be removed. *Avoid damaging the nerves and vessels in the femoral triangle.

ANTERIOR COMPARTMENT OF THE THIGH
A. Sartorius – Identify the sartorius muscle. Separate the sartorius muscle from the anterior superior iliac spine to the medial side of the knee. The sartorius muscle is the lateral border of the femoral triangle.
B. Quadriceps femoris – Identify the three superficial muscles of the quadriceps femoris muscle, the vastus lateralis, the rectus femoris, and the vastus medialis.
C. Iliopsoas – Identify the iliopsoas muscle (combination of iliacus and psoas muscles). Located on the floor of the femoral triangle.
D. Tensor fascia lata - Identify the tensor fascia lata muscle originating from the anterior superior iliac spine and inserting into the iliotibial tract.

MEDIAL COMPARTMENT OF THE THIGH
E. Pectineus – Identify the pectineus muscle just distal to the inguinal ligament.
F. Adductor longus – Identify the adductor longus muscle just distal to the pectineus muscle. The adductor longus muscle is the medial border of the femoral triangle.
G. Gracilis – Identify the gracilis muscle. Separate the gracilis muscle along the medial aspect of the thigh.
H. Adductor magnus – Identify the adductor magnus muscle inferior and deep to the adductor longus muscle.

V. VESSEL AND NERVE IDENTIFICATION
A. Great saphenous vein – Identify the great saphenous vein, an example of a superficial vein, previously exposed.

FEMORAL TRIANGLE
B. Femoral artery – Identify the femoral artery within the femoral triangle. Follow the femoral artery to the adductor hiatus. Identify the deep femoral artery (deep artery of the thigh), a major branch of the femoral artery.
C. Femoral vein – Identify the femoral vein located medial to the femoral artery. Identify the great saphenous vein as it joins the femoral vein.
D. Femoral nerve – Identify the femoral nerve located lateral to the femoral artery. This nerve may be divided into several large branches.