CADAVER DISSECTION – GLUTEAL REGION

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 gluteal region and back: **posterior superior iliac spine, iliac crest, medina sacral crest.**

II. SUPERFICIAL VESSELS – Determine the location of any major superficial veins or nerves in your area of dissection to avoid damaging these structures as you dissect.

III. REMOVAL OF SKIN – Using the following steps remove the skin from the median line of the sacral region of the vertebral column laterally.

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.
   - Median Incision Line – Cut the skin along the median sacral crest.
   - Lateral Midline Incision Line
     - Superior Cut – Cut the skin laterally from the superior part of the sacrum along the iliac crest to the lateral side of the body
     - Inferior Cut – Cut the skin laterally from the inferior part of the sacrum along the inferior border of the gluteus maximus muscle.

B. Locate the Epimysium of the Gluteal Muscles – Use a smooth probe to locate the separation between the superficial fascia and deep fascia. Using the smooth probe and your fingers (avoid using the scalpel blade unless absolutely necessary), remove the skin from the median line to the lateral side of the hip. * Avoid cutting into the fibers of the gluteus maximus muscle.

IV. MUSCLE IDENTIFICATION AND SEPARATION:

A. **Gluteus maximus** – Identify the gluteus maximus muscle. Remove the superficial fascia from this muscle to identify its superior and inferior border.
   * Cut through the gluteus maximus muscle from a point on the inferior border of the muscle approximately two inches medial from its insertion on the femur, directly superior to a point approximately two inches lateral along the superior border of its origin.
   * Lay back the sectioned portions of the gluteus maximus muscle to leave the deeper structures below.

B. **Gluteus medius** – Identify the gluteus medius muscle. Cut a one inch window in the middle of this muscle to identify the deeper **gluteus minimus** muscle.

C. **Piriformis** – Identify the piriformis muscle. This muscle is the KEY to the gluteal region separating significant nerves and vessels which emerge through the greater sciatic notch above and below the muscle.
D. Gemilli and obturator internus muscles – Separate and identify the **superior gemellus** muscle, the **obturator internus** muscle, and **inferior gemellus** muscle distal to the piriformis muscle, and deep to the sciatic nerve and inferior gluteal vessels and nerve.

E. **Quadratus femoris** – Identify the quadratus femoris muscle distal to the inferior gemellus muscle and deep to the sciatic nerve.

V. VESSEL IDENTIFICATION

**Superficial Veins**

A. **Superior gluteal artery and vein** - Identify the superior gluteal artery and vein as they emerge through the greater sciatic notch superior to the piriformis muscle.

B. **Inferior gluteal artery and vein** – Identify the inferior gluteal artery and vein as they emerge through the greater sciatic notch inferior to the piriformis muscle.

VI. NERVE IDENTIFICATION

A. **Superior gluteal nerve** – Identify the superior gluteal nerve as it emerges through the greater sciatic notch superior to the piriformis muscle.

B. **Inferior gluteal nerve** – Identify the inferior nerve as they emerge through the greater sciatic notch inferior to the piriformis muscle.

C. **Sciatic nerve** – Identify the sciatic nerve (combination of tibial nerve and common fibular nerve) as it merges distal to the piriformis muscle and lateral to the inferior gluteal nerve and vessels.

D. **Posterior femoral cutaneous nerve** – Identify the posterior femoral cutaneous nerve as it merges inferior to the piriformis muscles and between the inferior gluteal nerve and sciatic nerve.

VII. STRUCTURE IDENTIFICATION

A. **Pudendal Neurovascular Bundle** – Identify the pudendal neurovascular bundle containing the pudendal nerve and internal pudenda l artery and vein, located inferior to the piriformis muscle prior to reentering the pelvis through the lesser sciatic notch (foramen).

B. **Ischial tuberosity** – Identify the ischial tuberosity.

C. **Greater trochanter** – Identify the greater trochanter.

D. Sacrotuberous ligament – Identify the sacrotuberous ligament attaching the sacrum to the ischial tuberosity.