

Lower Limb Bones - Femur

The femur is the longest and heaviest bone of the body, located in the thigh. Its features include: head, neck, greater and lesser trochanter, gluteal tuberosity, pectineal line, linea aspera, medial and lateral epicondyles, medial and lateral condyles, adductor tubercle, and intercondylar fossa. These landmarks provide numerous insertion points for various muscles, ligaments, and tendons of the lower body.



PLAY PICMONIC

Femur

Head

Head of femur

The femoral head is somewhat spherical and fitted medially, upward, and forward into the acetabulum with an articular cartilage covering. The fovea capitis femoris is a depression on the head to which the ligamentum capitis femoris attaches.

Neck

Neck of femur

The femoral neck connects the head to the shaft of the femur at an angle of approximately 125 degrees. Fractures commonly occur at this site. The intertrochanteric line, to which the iliofemoral ligament attaches, separates the neck from the shaft.

Greater Trochanter

Greater Truck-antlers

This projects up from the neck-shaft junction. The gluteus medius and minimus, piriformis, and obturator internus muscles all insert here. The obturator externus tendon attaches to the trochanteric fossa on its medial aspect.

Lesser Trochanter

Lesser Truck-antlers

The lesser trochanter lies in the angle between the neck and the body of the femur. The inferior end of the intertrochanteric crest protrudes from here, and the iliopsoas tendon inserts here.

Gluteal Tuberosity

Gluteal Tube

The gluteal tuberosity is the lateral ridge of the linea aspera, where the gluteus maximus inserts.

Pectineal Line

Packed-in Line

The pectineal line travels from the lesser trochanter to the medial lip of the linea aspera, providing an insertion for the pectineus muscle.

Linea Aspera

Line Asparagus

The linea aspera is a ridge on the shaft of the femur that has lateral and medial lips, allowing for attachments of various muscles as well as the three intermuscular septa.

Epicondyles

E-cones

Located on the distal end of the femur, the smaller lateral epicondyle provides an attachment site for the fibular collateral ligament of the knee. The larger medial epicondyle provides attachment for the tibial or medial collateral ligament (MCL).

Condyles

Cones

Located on the distal end of the femur, the femoral condyles articulate with the tibial condyles below and form the knee joint together. The medial condyle is larger due to the greater weight bearing function medially. The lateral condyle is the insertion site for the anterior cruciate ligament (ACL); it is also subject to osteochondral fracture with patellar dislocation with high impact blunt trauma.

Adductor Tubercle

Add-duct-tape Tube

The adductor tubercle is a protrusion on the superior medial condyle that allows for insertion of the medial portion of the adductor magnus muscle.