

**Muscles of anterior compartment**

**Sartorius muscle**

|  |              |
|--|--------------|
| Anterior superior iliac spine  | Origin       |
| Upper part of the medial surface of the tibia                                | Insertion    |
| Flexion, abduction, Lateral rotation Flexion & medial rotation of knee joint | Action       |
| Femoral nerve  | Nerve supply |

**Psoas major muscle (illioipsoas)**

|  |              |
|--|--------------|
| Sides of T12-L5 vertebrae and discs between them; transverse processes of all lumbar vertebrae | Origin       |
| Lesser trochanter of the femur together with iliacus muscle.                                   | Insertion    |
| Flexion of the thigh on the trunk  | Action       |
| Branches from lumbar plexus (ventral rami of L1-L3)  | Nerve supply |

**Iliacus (illioipsoas)**

|   |              |
|---|--------------|
| Iliac fossa within the abdomen, iliac crest and ala of sacrum | Origin       |
| Lesser trochanter of the femur                                | Insertion    |
| Flexion of the thigh on the trunk                             | Action       |
| Femoral nerve   | Nerve supply |

**Pectineus**

|   |              |
|---|--------------|
| Superior ramus of the pubis   | Origin       |
| Upper end of the linea aspera below the lesser trochanter (pectineal line of femur) | Insertion    |
| Flexion & adduction of thigh at hip joint, medial rotation of thigh                 | Action       |
| Femoral nerve (occasionally obturator nerve)  | Nerve supply |

**Quadriceps femoris**

|   |              |                    |
|---|--------------|--------------------|
| Straight head from anterior inferior iliac spine.   | Origin       | Rectus femoris     |
| Reflected head ilium above the from the acetabulum  | Origin       |                    |
| Quadriceps tendon & patella.  | Insertion    | Nerve supply       |
| Femoral nerve   | Nerve supply |                    |
| Intertrochanteric line, base of greater trochanter, linea aspera  | Origin       | Vastus lateralis   |
| Quadriceps tendon & patella.  | Insertion    |                    |
| Femoral nerve   | Nerve supply | Nerve supply       |
| Femoral nerve   | Nerve supply |                    |
| Intertrochanteric line, linea aspera  | Origin       | Vastus medialis    |
| Quadriceps tendon & patella the lowest fibers are horizontal in direction & attached directly to the patella preventing its lateral dislocation | Insertion    |                    |
| Femoral nerve   | Nerve supply | Nerve supply       |
| Femoral nerve   | Nerve supply |                    |
| Anterior & lateral surfaces of the shaft of the femur   | Origin       | Vastus intermedius |
| Quadriceps tendon & patella   | Insertion    |                    |
| Femoral nerve   | Nerve supply | Nerve supply       |
| Femoral nerve   | Nerve supply |                    |

Some fibers inserted into capsule of the knee joint

Articularis genu: muscle fibres attached to the is synovial membrane of the knee joint

Action of quadriceps muscle femoris:

- Powerful extensor knee joint
- The rectus femoris also flexes the hip joint
- The lower fibers of the vastus medialis stabilize the patella

A the paramedics at the scene that her upper thigh hurts badly 36 year old woman injured in an automobile accident tells and she can barely flex her hip. reveals an avulsion fracture of the proximal femur, A plain fi m of the hip joint indicated by the open white arrow, and a fracture fragment identified by Which of the following muscles is most the solid white arrow. likely detached?

- Adductor magnus
- Iliopsoas
- Rectus femoris
- Biceps femoris
- Sartorius

Case:

**Femoral nerve**

|  |              |
|--|--------------|
| Is the largest branch of the femoral plexus (L 2,3,4)  | Origin       |
| It emerges from lateral border of psoas muscle within the abdomen & passes down in between psoas & iliacus   | Course       |
| It lies behind fascia iliaca   |              |
| femoral sheath behind the inguinal ligament. Enters thigh lateral to the femoral artery & (outside the femoral sheath)   | Termination  |
| 1 1/2 inch (4cm) below the inguinal ligament, it terminates by dividing into anterior & posterior divisions  |              |
| Muscles of anterior compartment of the thigh   | Motor supply |
| Muscular: Muscles of anterior compartment of the thigh   | Branches     |
| Articular: to the knee and hip joints  |              |
| Intermediate cutaneous nerve of the thigh  |              |
| Medial cutaneous nerve of the thigh  | Cutaneous    |
| Saphenous nerve  |              |
| descends on the medial side of the knee joint and the medial side of the leg then anterior to the medial malleolus and passes on the medial side of the foot reaching the metatarsophalangeal joint of the big toe |              |