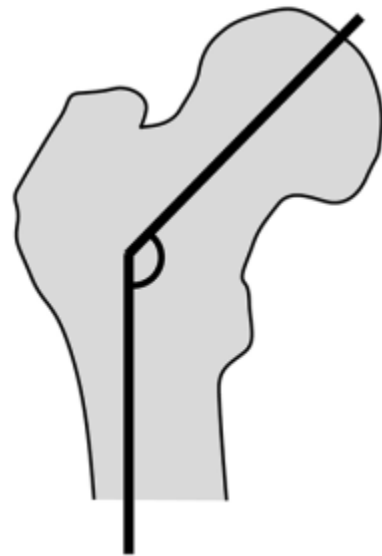
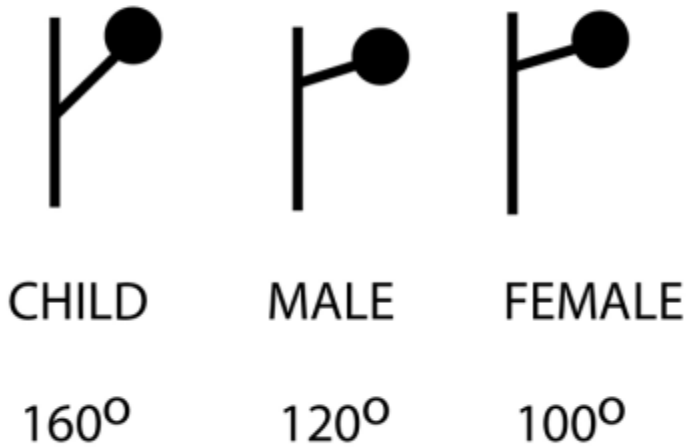


# HIP JOINT 1

Ball and socket  
Synovial  
Ligamentum teres in fovea

ANGLE OF NECK  
ON SHAFT

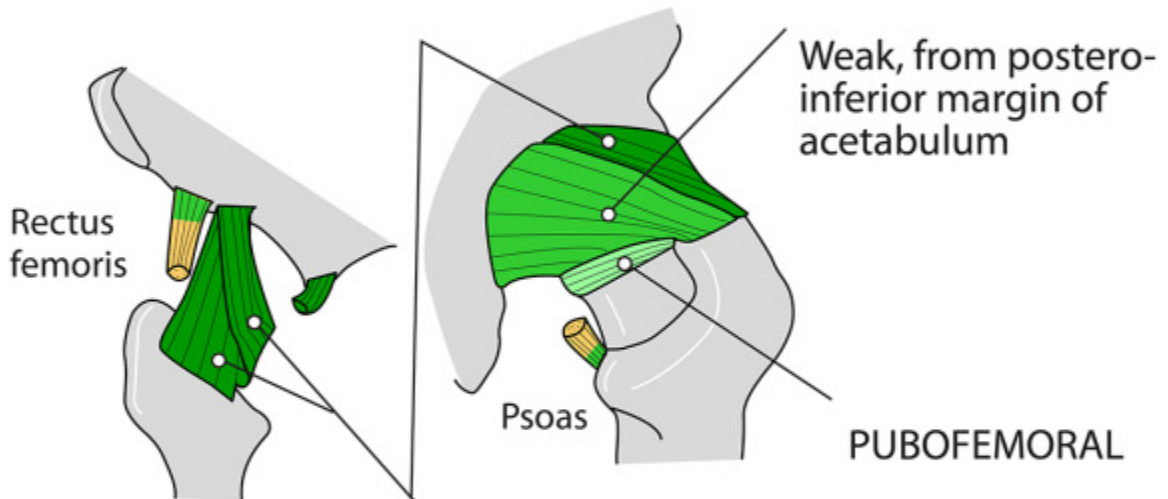


# HIP JOINT 5

ANTERIOR

## LIGAMENTS

POSTERIOR



ISCHIOFEMORAL

Weak, from postero-inferior margin of acetabulum

Rectus femoris

Psoas

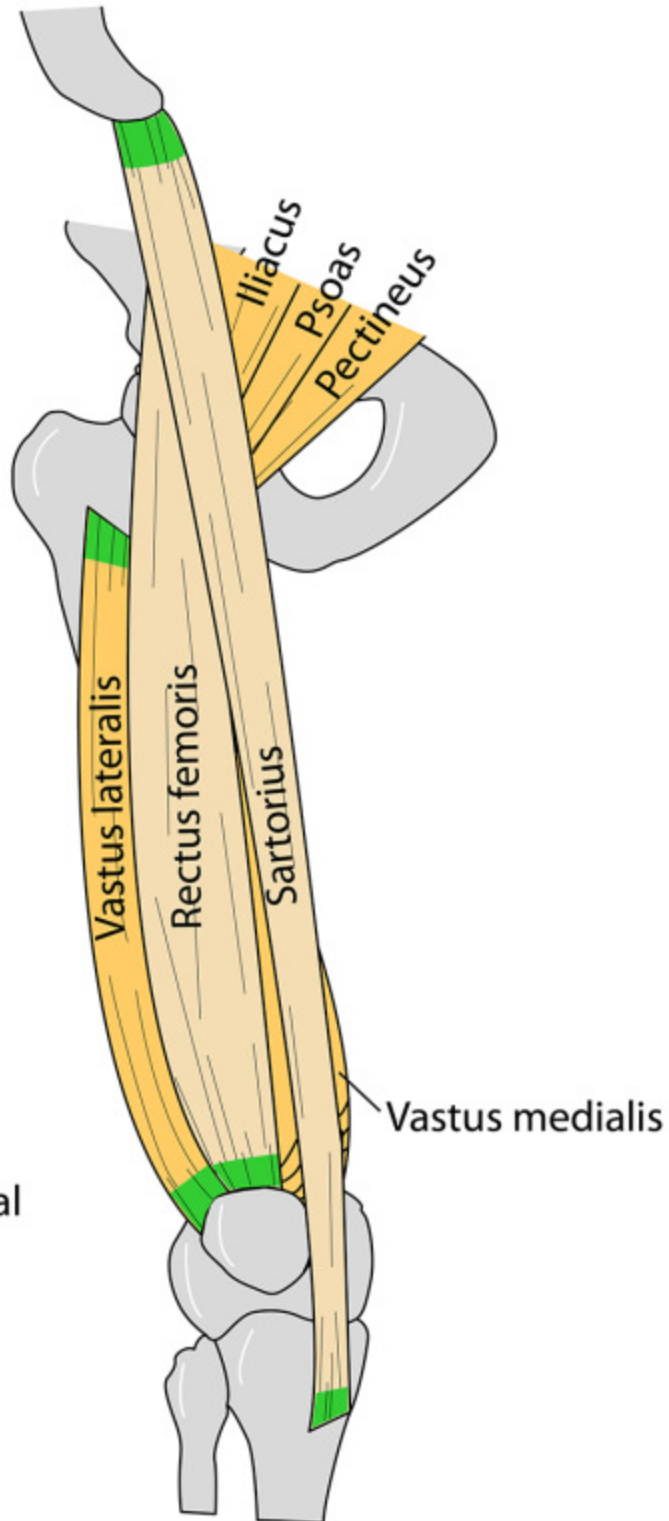
PUBOFEMORAL

ILIOFEMORAL

Strong ++  
From low on anterior inferior iliac spine to intertrochanteric line  
Y shaped (triangular ligament of Bigelow)

Iliopectineal eminence & superior pubic ramus

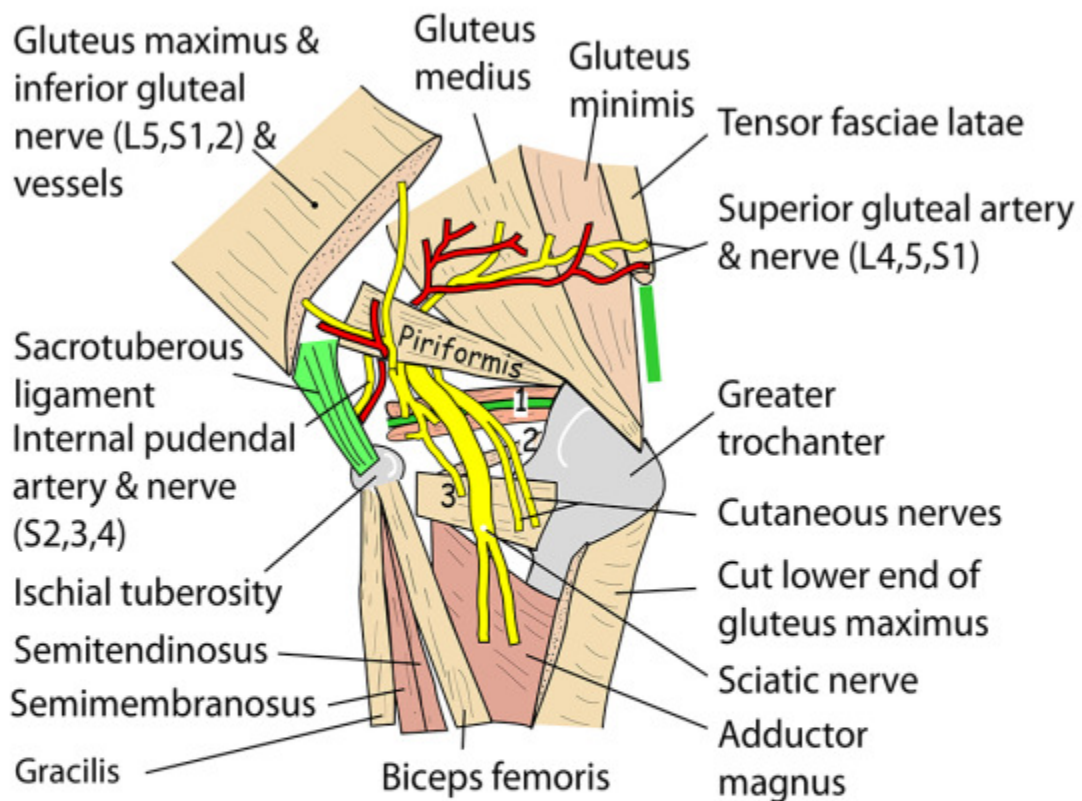
## ANTERIOR THIGH & HIP FLEXORS



Note on Psoas/iliacus:  
Despite some opinions it is probable from recent experiments that these muscles act purely as flexors of the hip and not rotators. However, in the presence of a fractured neck of femur the line of axis changes and they produce external rotation

For more details of these muscles, please see muscle section in the book - Instant Anatomy, by R H Whitaker & N R Borley. 4th edition. Wiley-Blackwell 2010

## RIGHT GLUTEAL REGION



- 1 Gemellus superior, obturator internus, gemellus inferior
- 2 Obturator externus
- 3 Quadratus femoris

For action of the muscles please see section on hip movements. More details can be found in the muscle section in the book - Instant Anatomy, by R H Whitaker & N R Borley. 4th edition. Wiley-Blackwell 2010

# HIP JOINT 6

## HIP MOVEMENTS

### **Abduction**

Gluteus medius, gluteus minimus, tensor fasciae latae (+/- piriformis)

### **Adduction**

Adductors brevis, longus, magnus (pectineus, gracilis, iliopsoas)

### **Flexion**

Psoas, iliacus, rectus femoris, sartorius, (pectineus, tensor fasciae latae). Note soft tissue limitation

### **Extension**

Gluteus maximus, semitendinosus, semimembranosus, adductor magnus, long head biceps femoris. Note capsule & ligaments limitation

### **External rotation**

Gluteus maximus, (piriformis, obturators internus & externus, gemelli, quadratus femoris)

### **Internal rotation**

Anterior fibres of gluteus medius & minimis

# HIP JOINT 4

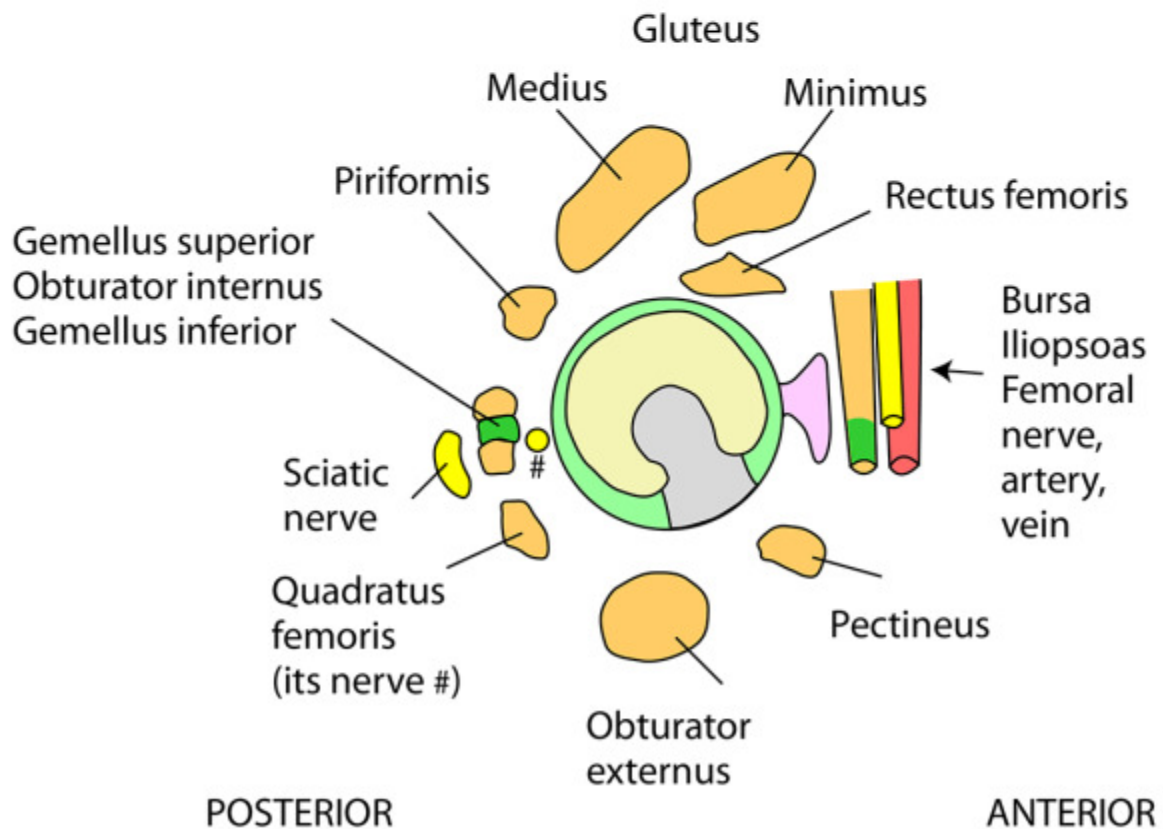
## BURSAE

- Psoas may communicate into hip joint
- Trochanteric
- Ischial

## NERVES

- Femoral (because of rectus femoris)
- Sciatic (because of quadratus femoris)
- Obturator - posterior division

## RELATIONS



## HIP JOINT 3

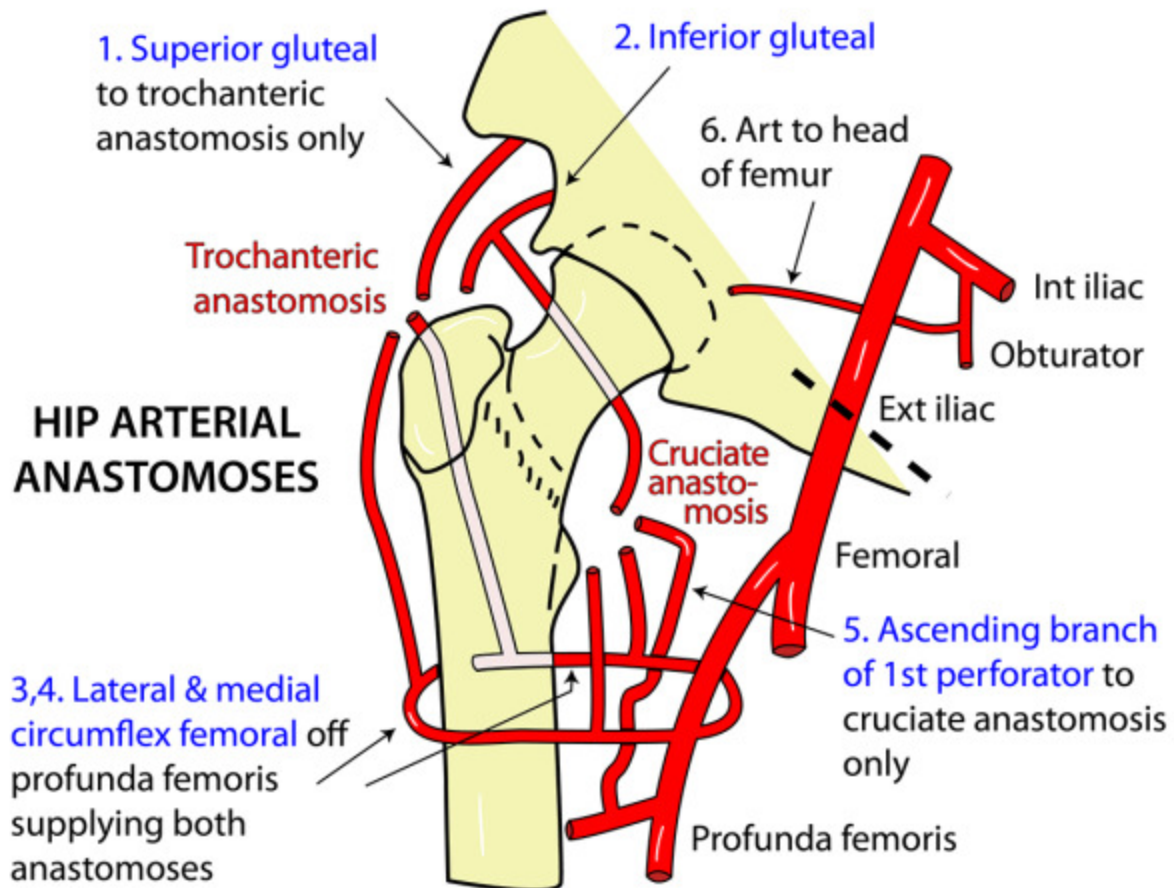
### CAPSULE

Strong ++

Anterior: Covers whole neck to intertrochanteric line

Posterior: Covers neck half way to intertrochanteric crest

Reflects: Back as retinaculum which carries the blood supply



### 2 ANASTOMOSES

#### Trochanteric (at greater trochanter):

Descending superior gluteal

Inferior gluteal

Ascending branches of medial & lateral circumflex femoral

#### Cruciate (at lesser trochanter):

Transverse branches of medial & lateral circumflex femoral

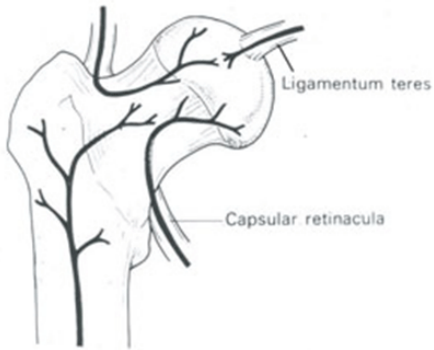
Descending branch of inferior gluteal

Ascending branch of 1st perforating artery

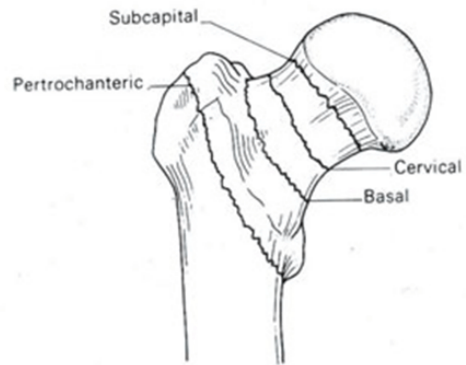
Mnemonic:

Upper anastomosis does not receive branch from lowest artery,  
lower anastomosis does not receive branch from highest artery.

## BLOOD SUPPLY TO HEAD AND NECK OF FEMUR



Blood supply to head and neck of femur



Sites of femoral neck fracture



Loss of blood supply to head of femur with a subcapital fracture



Intact blood supply to head of femur in pterochantheric fracture