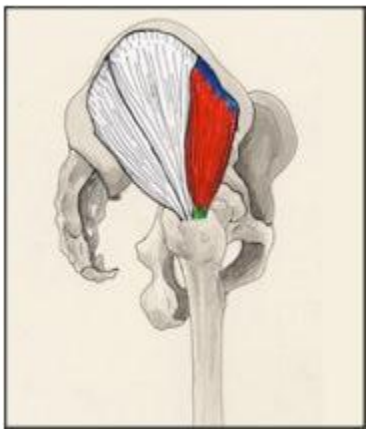
Gluteus Medius
Function

- Lateral hip stabilizer: Pulling femur up and in to the acetabulum
- Thus: If weak, lose hip stability and increase stress on spine in weight bearing
- If weak: Results in compressive forces on head of femur in acetabulum: DJD
- Posterior weakness: Pelvis will rotate backwards on opposite side
- Posterior: Main complaint for SI- joint
- Note: Cannot abduct only one hip at a time

Origin: Lateral surface of ilium inferior to iliac crest: anterior ⅓
Insertion: Lateral/superior and posterior border surface of greater trochanter
AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client fully internally rotates hip, then abducts hip 30°
- Practitioner's stabilizing hand on ankle of uninvolved leg
- Practitioner's action hand on lateral malleolus of involved leg
- Practitioner applies force into hip adduction

DFAMAT

- Client lying on side
- Practitioner cup around iliac crest from thumb to finger to landmark IC
- Upward into anterior/lateral/inferior ⅓ of iliac crest
- Downward onto posterior lateral surface of greater trochanter

Glute Med Middle Fibers

Function

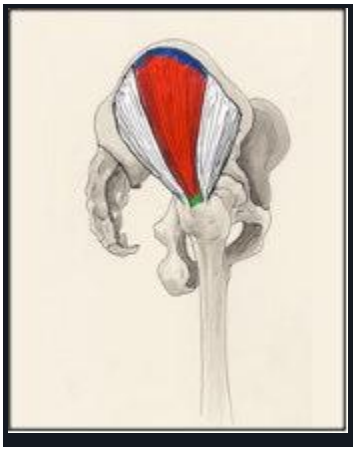
- Lateral hip stabilizer: Pulling femur up and in to the acetabulum
- Thus: If weak, lose hip stability and increase stress on spine in weight bearing
- If weak: Results in compressive forces on head of femur in acetabulum: DJD

- Posterior weakness: Pelvis will rotate backwards on opposite side
- Posterior: Main complaint for SI- joint
- Note: Cannot abduct only one hip at a time

Origin: Lateral surface of ilium inferior to iliac crest: middle ⅓

Insertion: Lateral/superior and posterior border surface of greater trochanter

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client abducts hip 30° with no rotation
- Practitioner's stabilizing hand on ankle of uninvolved leg
- Practitioner's action hand on lateral malleolus of involved leg
- Practitioner applies force into hip adduction

DFAMAT

- Client lying on side
- Cup around iliac crest from thumb to finger to landmark IC
- Upward into middle/inferior/lateral ⅓ of iliac crest
- Downward onto posterior lateral surface of greater trochanter

Glute Medius Posterior Fibers

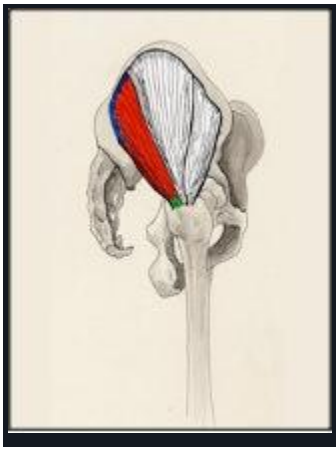
Function

- Lateral hip stabilizer: Pulling femur up and in to the acetabulum
- Thus: If weak, lose hip stability and increase stress on spine in weight bearing
- If weak: Results in compressive forces on head of femur in acetabulum: DJD
- Posterior weakness: Pelvis will rotate backwards on opposite side
- Posterior: Main complaint for SI- joint
- Note: Cannot abduct only one hip at a time

Origin: Lateral surface of ilium inferior to iliac crest: Posterior ⅓

Insertion: Lateral/superior and posterior border surface of greater trochanter

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client fully externally rotates the hip and abducts hip 30°
- Practitioner's stabilizing hand on ankle of uninvolved leg
- Practitioner's action hand on lateral malleolus of involved leg
- Practitioner applies force into hip adduction

DFAMAT

- Client lying on side
- Cup around iliac crest from thumb to finger to landmark IC
- Upward into posterior/lateral/inferior ⅓ of iliac crest
- Downward onto posterior lateral surface of greater trochanter

Glute Minimus Anterior Fibers

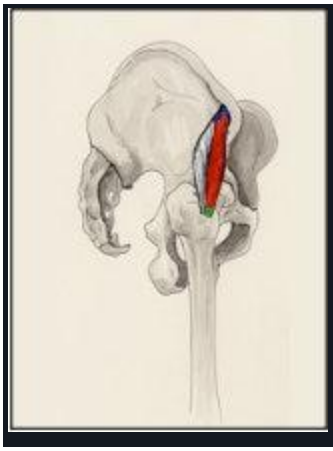
Function

- Lateral hip stabilizer: Pulling femur up and in to the acetabulum
- Thus: If weak, lose hip stability and increase stress on spine in weight bearing
- If weak: Results in compressive forces on head of femur in acetabulum: DJD
- Posterior weakness: Pelvis will rotate backwards on opposite side
- Posterior: Main complaint for SI- joint
- Note: Cannot abduct only one hip at a time

Origin: Anterior ¼ of the outer middle portion of ilium

Insertion: Anterior/lateral border of greater trochanter

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client fully internally rotates the hip, flexes hip 30°, then abducts hip 30°
- Practitioner's stabilizing hand on ankle of uninvolved leg
- Practitioner's action hand on lateral malleolus of involved leg
- Practitioner applies force into hip adduction

DFAMAT

- Client lying on side
- Landmark: Halfway down between iliac crest and greater trochanter
- Apply direct pressure into anterior quarter of ilium
- Down and in to anterior/lateral/superior portion of greater trochante

Glute Minimus Lateral Fibers

Function

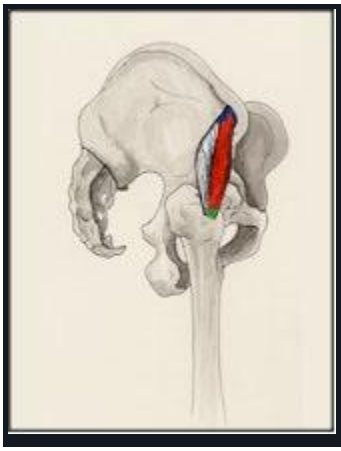
- Lateral hip stabilizer: Pulling femur up and in to the acetabulum
- Thus: If weak, lose hip stability and increase stress on spine in weight bearing
- If weak: Results in compressive forces on head of femur in acetabulum: DJD
- Posterior weakness: Pelvis will rotate backwards on opposite side

- Posterior: Main complaint for SI- joint
- Note: Cannot abduct only one hip at a time

Origin: Second half of the anterior, outer middle portion of ilium

Insertion: Anterior/lateral border of greater trochanter

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client fully externally rotates the hip, flexes hip 30°, then abducts hip 30°
- Practitioner's stabilizing hand on ankle of uninvolved leg
- Practitioner's action hand on lateral malleolus of involved leg
- Practitioner applies force into hip adduction

DFAMAT

- Client lying on side

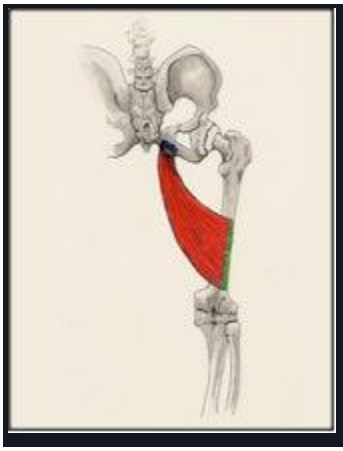
- Landmark: Halfway down between iliac crest and greater trochanter
- Apply direct pressure into anterior 2nd quarter of ilium
- Down and into anterior/lateral/superior portion of greater trochanter

Adductor Magnus Oblique Fibers

Origin: Ischial tuberosity and ramus of ischium

Insertion: Middle ⅓ of linea aspera

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client fully externally rotates hip with leg fully adducted to opposite leg
- Practitioner's stabilizing hand on opposite medial malleolus
- Practitioner's action hand on back of the calcaneus to regulate rotation
- Practitioner applies force into hip abduction in frontal plane while keeping the knee extended

DFAMAT

- Client lying on side with uninvolved hip flexed
- Most posterior adductor attachment on the ischial tuberosity
- Move down to the posterior, middle ⅓ of the linea aspera

Adductor Magnus Vertical Fibers

Origin: Ischial tuberosity and ramus of ischium

Insertion: Adductor tubercle and lower medial femur

Function

- Hip extension with internal rotation of the femur
- Weight-bearing: Regulate against the anterior pull from the adductors and hip flexors that flex the hip
- Works with all adductors in frontal plane stability during weight bearing

AMC&S test

- Practitioner stands at the base of the client
- Client lies supine
- Client fully internally rotates hip with knee extended
- Practitioner's stabilizing hand on opposite malleolus
- Practitioner's action hand on back of the calcaneus to regulate rotation
- Practitioner applies force into hip flexion (lift up)

DFAMAT

- Client lying on side with uninvolved hip flexed
- Most posterior adductor attachment on the ischial tuberosity
- Find adductor tubercle and 1 inch superiorly

Adductor Longus

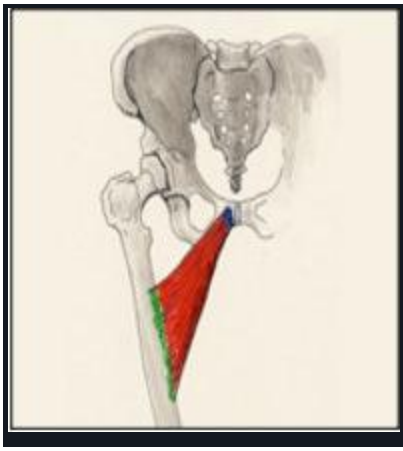
Origin: Pubic tubercle

Insertion: Inferior half of the linea aspera

Function

- Adduction and hip flexion
- Most activity as a frontal plane stabilizer in single limb support
- Works with all adductors in frontal and sagittal plane stability

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client elevates distal end of the femur off the table 1-2 inches (heel height varies by client)
- Client fully externally rotates involved hip
- Client abducts non-involved leg and adducts other leg to meet while stabilizing non-involved leg
- Practitioner's stabilizing hand on opposite malleolus
- Practitioner's action hand on back of the calcaneus to regulate rotation
- Practitioner applies force into hip abduction

DFAMAT

- Client is supine with slight hip flexion and external rotation
- Have client adduct thigh, follow mass of muscle into tendinous attachment at the pubic tubercle
- At the linea aspera along inferior half of muscle belly

PIC

Adductor Brevis

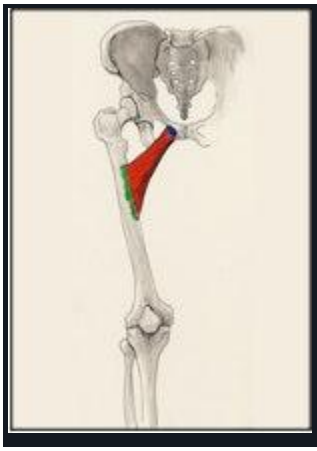
Origin: inferior ramus of the pubis

Insertion: pectineal line and middle portion of the linea aspera

Function

- Adduction with hip flexion
- Works with all adductors in frontal and sagittal plane stability

AMC&S test



- Practitioner stands at the base of the client
- Client lies supine
- Client fully internally rotates hip
- Client flexes hip so femur can cross midline, adduct across midline
- Practitioner’s stabilizing hand on opposite medial malleolus
- Practitioner’s action hand on back of the calcaneus to regulate rotation
- Practitioner applies force into hip abduction in frontal plane

DFAMAT

- Client supine with slight hip flexion and external rotation
- Have client adduct thigh, just posterior to the adductor longus attachment
- Along the linea aspera, proximal to the adductor longus

Pectineus

Origin: Superior border of ramus of pubis

Insertion: Pectineal line of the femur

AMC&S test

- Practitioner stands at the base of the client
- Client lies supine
- Client fully externally rotates hip
- Client is in oblique plane and brings hip into flexion and adduction across midline
- Practitioner's stabilizing hand on opposite malleolus
- Practitioner's action hand is on medial/top of distal tibia
- Practitioner applies force into hip abduction and extension (push down and out)

DFAMAT

- Client supine with slight hip flexion and external rotation
- Have client adduct thigh, find most anterior and superior attachment of the adductor group (above adductor longus)
- Medial/posterior surface of femur from lesser trochanter inferiorly (approximately 2 inches)

Gracilis

Origin: Inferior ramus of pubis and ramus of ischium

Insertion: Proximal/medial shaft of the tibia at the pes anserinus tendon

Function

- Adduction with hip extension, knee flexion and medial rotation
- Medial knee stabilizer
- Biarticular motion creating simultaneous stability at the hip and the knee during weight bearing

AMC&S test

- Practitioner stands at the base of the client
- Client lies supine
- Client fully internally rotates hip
- Client slightly adducts to neutral
- Practitioner's stabilizing hand on opposite medial malleolus
- Practitioner's action hand is on medial/top of distal tibia
- Practitioner applies force into hip abduction in frontal plane

DFAMAT

- Client supine with slight hip flexion and external rotation
- Have client adduct thigh, follow taut tendon into pubic bone
- Follow tendon into pes anserine attachment on the superior/medial aspect of the tibia

Obturator Externas

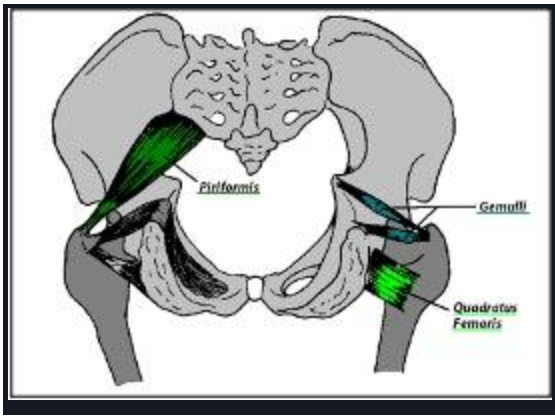
Function

- Work together with piriformis
- Together they stabilize the head of the femur in the acetabulum during weight bearing
- Deep to sciatic nerve

Origin: Outer obturator membrane

Insertion: Trochanteric fossa on medial surface of greater trochanter

AMC&S test



- Practitioner stands on side of leg being tested
- Client lies supine
- Client flexes hip 110° with full external rotation of the femur at the hip; tibia parallel to the table
- Practitioner's stabilizing hand on lateral side of knee
- Practitioner's action hand cups the heel
- Practitioner applies force into hip internal rotation

DFAMAT

- Superior/lateral portion of ischial tuberosity, fill in the obturator foramen
- Feel for tip of greater trochanter and attempt to curl finger deep around the tip

Piriformis

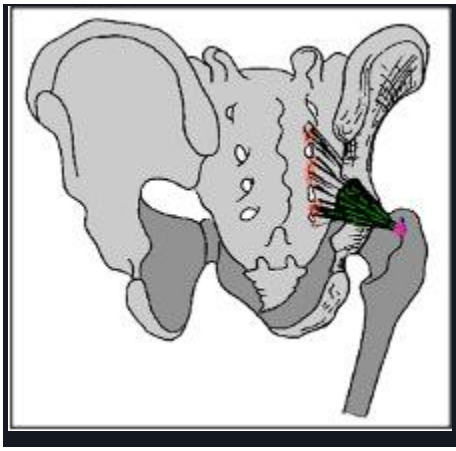
Function

- External rotator of the hip
- Keeps femoral head in contact with the acetabulum: pulls it in
- Acts as an abductor at 90° of hip flexion
- Inverse reaction as moving deeper into flexion
- Direct attachment to the anterior surface of the sacrotuberous ligament=SI joint stability
- Relationship with sciatic nerve

Origin: Anterior surface of sacrum

Insertion: Superior border of greater trochanter

AMC&S test



- Practitioner stands on same side as leg being tested
- Client lies prone
- Client flexes knee 90° and abducts thigh 10° with full external rotation of hip
- Practitioner's stabilizing hand on pelvis
- Practitioner's action hand on medial ankle
- Practitioner's applied force internal rotation of the hip (pull out)

DFAMAT

- Cannot anterior surface
- Prone, on sacrum halfway between PSIS and coccyx
- Just inferior to SI joint
- On posterior/superior aspect of the greater trochanter

Quadratus Femoris

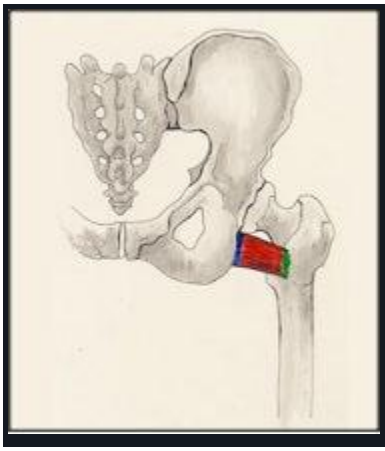
Function

- Work together with piriformis
- Together they stabilize the head of the femur in the acetabulum during weight bearing
- Deep to sciatic nerve

Origin: Superior-lateral ischial tuberosity

Insertion: Intertrochanteric crest of the greater trochanter

AMC&S test



- Practitioner stands on side of leg being tested
- Client lies supine
- Client flexes hip 75° with full external rotation of the femur at the hip and tibia parallel to the table
- Practitioner's stabilizing hand lateral side of knee
- Practitioner's action hand cups the heel

- Practitioner’s applied force pulls out at the heel while stabilizing the knee, applying a force into hip internal rotation

DFAMAT

- Landmark up and into inferior portion of the ischial tuberosity
- Move superior/lateral along ischial tuberosity
- Posterior/inferior greater trochanter and continue inferior/medially along femur 1-2 inches