42b Kinesiology: AOIs - Coxal and Tibiofemoral Joint Muscles

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10 minutes	**Break** Announce the return time and write it on the board.
5 minutes	**Attendance** Also project the "Class Reminders" slide.
20 minutes	**Cadaver Video:** Acland's DVD Atlas of Human Anatomy
55 minutes	**Anatomy in Clay**
20 minutes	**Break** Announce the return time and write it on the board.
30 minutes	**Active Study Skills**
60 minutes	**Palpation**
10 minutes	**Break down, clean up, and circle up**
3h 30m	**Total Class Time**

42b Kinesiology – Coxal and Tibiofemoral Joint Muscles

Class Reminders

Assignments:

- 43a Swedish: Outside Massages (Packet A: 57-62)
- 45b Cover Letter and Resume assignment – due before class starts via email or hard copy to your instructor. If LMS is active, assignment must be turned in via LMS.

Quizzes and Exams:

- 43a Kinesiology Quiz
  (adductor magnus, gracilis, iliopsoas, sartorius, TFL, piriformis, quadratus femoris)
- 44a Quiz (33b, 35a, 36a, 37a/b, 38a, 39a, 40a, 41a/b, 42b, and 43a)
- 46a Exam

Practical Exam:

- 44b Integration Massage: Practical Exam
  (60-minute Swedish, Passive Stretches, and BMTs)

- **Bring your grading sheet for evaluation A: 83**

Preparation for upcoming classes:

- 43a Kinesiology: AOIs - Coxal and Tibiofemoral Joint Muscles
- 44a Quiz
- 47b, 48b, 49b Pregnancy Message: **These classes cannot be made up in the make-up room.** To schedule a sit-in, please contact the Student Administrator.

Cadaver Video

- Deep Lateral Rotators
- Adductors
- IT Tract, TFL, and Iliopsoas
- Sartorius

Anatomy in Clay

- Coxal and tibiofemoral joint muscles that we've studied so far:
  - Gluteus maximus
  - Gluteus medius
  - Gluteus minimus
  - Biceps femoris
  - Semitendinosus
  - Semimembranosus
  - Rectus femoris
  - Vastus lateralis
  - Vastus medialis
  - Vastus intermedius
  - Gastrocnemius
  - Adductor magnus *
  - Gracilis *
  - Psoas major *
  - Iliacus *
  - Sartorius *
  - Tensor fasciae latae *
  - Piriformis *
  - Quadratus femoris *

Palpation

Set Up by the Students

- Students form groups of 3.
- Each group sets up a table and gets 1 face cradle, 1 bolster, and 2 chairs.
- Receivers must remain clothed.
- There will be no need of sheets except for a face cradle cover.

Demo and Practice

- All of the students come to a central table to watch a brief demonstration of how to palpate one of the focus muscles:
  - List and identify the bony landmarks, especially origins and insertions.
  - List and identify the muscle bellies and tendons.
  - List and explain the actions.
  - Demo how to palpate the muscle while simultaneously offer resistance to the action, "Contract, relax. Contract, relax."
  - The students go back to their table to practice the palpation.
  - 2 students palpate the third student collaboratively.
  - The instructor and assistant circulate to offer guidance and touch comparisons:

- This process repeats for each muscle that will be palpated.
- Once all the focus muscles have been palpated on the first student, repeat the process so that each student will palpate twice and be palpated once.

Adductor Magnus, page 320

A All fibers:

Adduct the hip (coxal joint)

Medially rotate the hip (coxal joint)

Assist to flex the hip (coxal joint)

Posterior fibers:

Extend the hip (coxal joint)

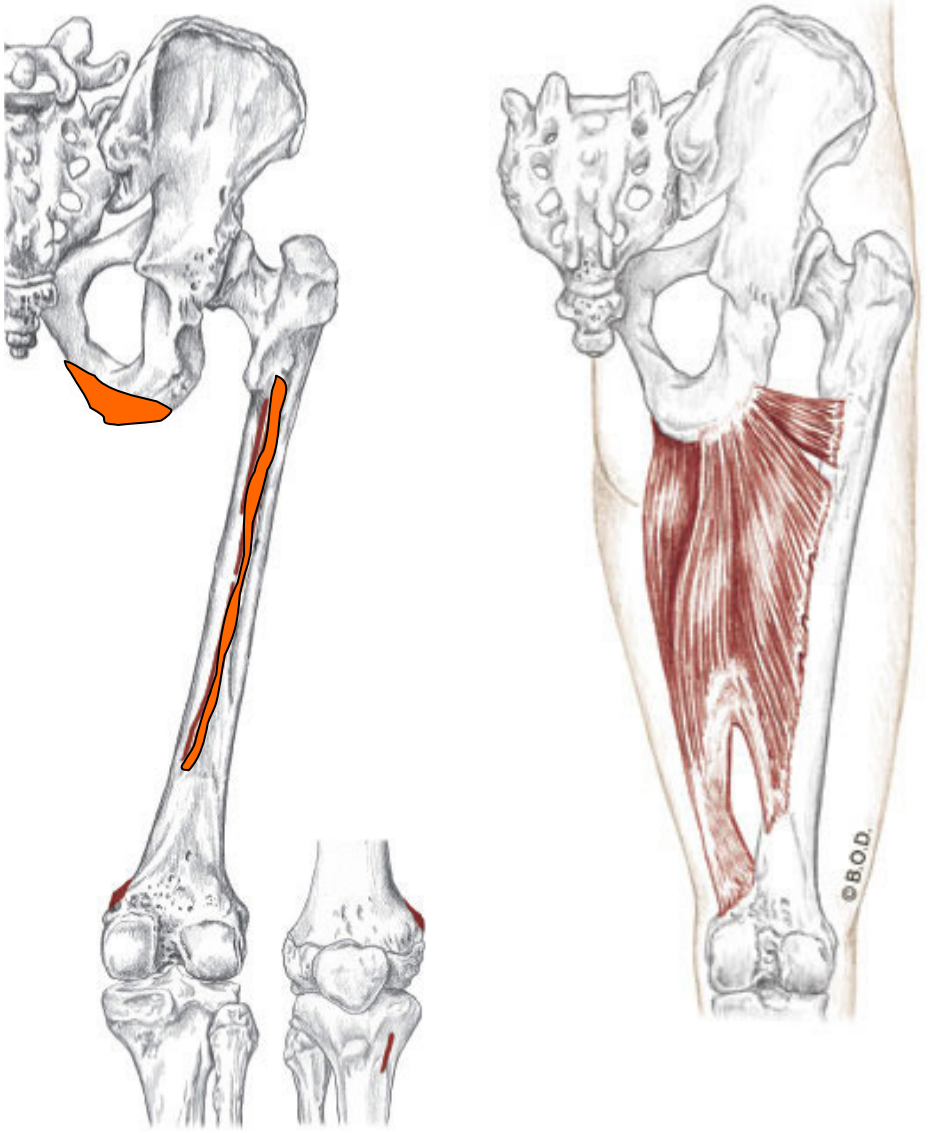
O Inferior ramus of the pubis

Ramus of the ischium

Ischial tuberosity

I Medial lip of linea aspera

Adductor tubercle



Posterior View

Gracilis, page 321

A All fibers:

Adduct the hip (coxal joint)

Medially rotate the hip (coxal joint)

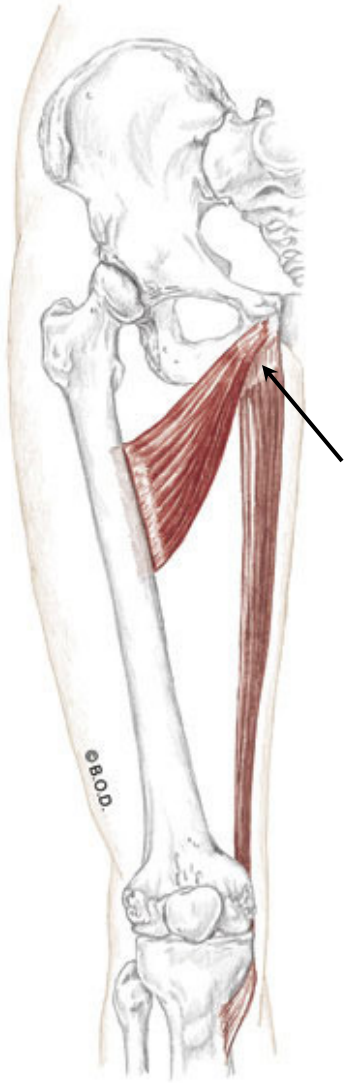
Flex the knee (tibiofemoral joint)

Medially rotate the knee (tibiofemoral joint)

O Inferior ramus of the pubis

I Proximal, medial shaft of tibia at pes anserinus tendon

Posterior View



Anterior View

Psoas Major, page 332

A *With the origin fixed:*
Flex the hip (coxal joint)

May laterally rotate the hip (coxal joint)

With the insertion fixed:
Flex the trunk toward the thigh

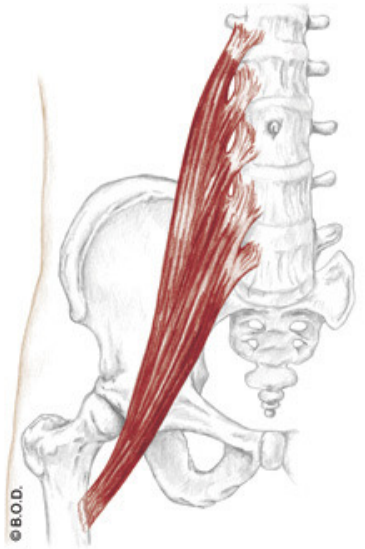
Tilt the pelvis anteriorly

Unilaterally:
Assist to laterally flex the lumbar spine

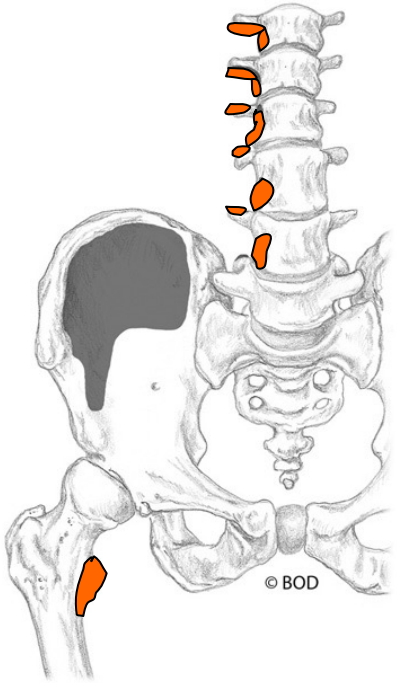
O Bodies of lumbar vertebrae

Transverse processes of lumbar vertebrae

I Lesser trochanter



Anterior View



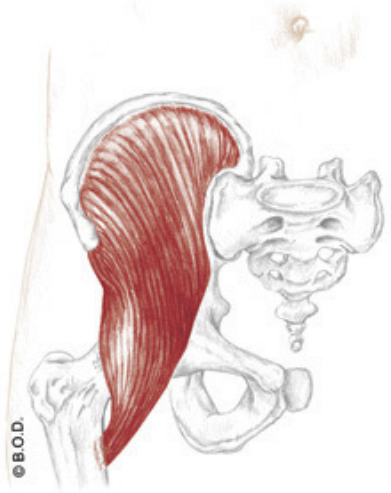
Iliacus, page 332

A *With the origin fixed:*
Flex the hip (coxal joint)

May laterally rotate the hip (coxal joint)

With the insertion fixed:
Flex the trunk toward the thigh

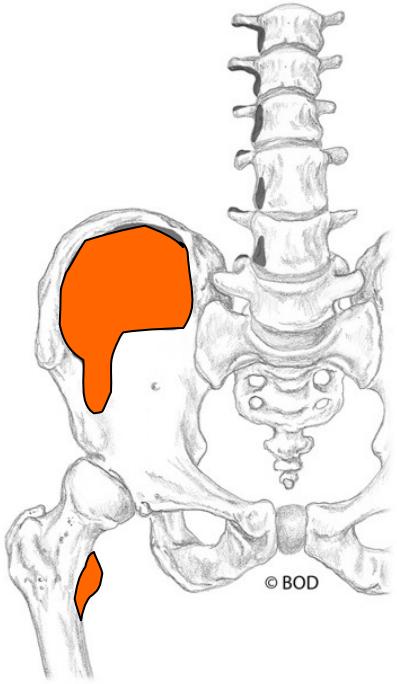
Tilt the pelvis anteriorly



Anterior View

O Iliac fossa

I Lesser trochanter



Sartorius, page 326

A Flex the hip (coxal joint)

Laterally rotate the hip (coxal joint)

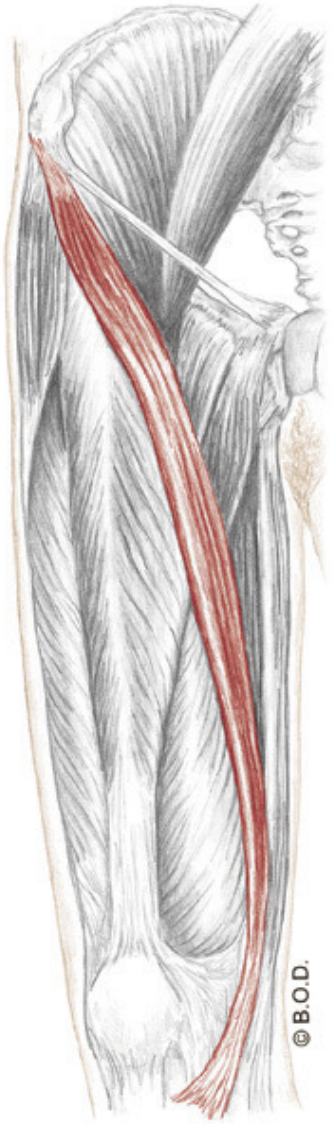
Abduct the hip (coxal joint)

Flex the knee (tibiofemoral joint)

Medially rotate the knee (tibiofemoral joint)

O Anterior superior iliac spine (ASIS)

I Proximal, medial shaft of the tibia at pes anserinus tendon



Anteromedial View

Tensor Fasciae Latae, page 324

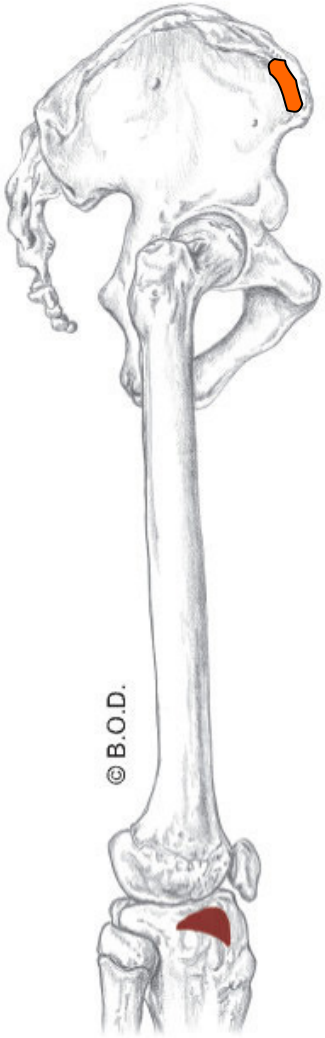
A Flex the hip (coxal joint)

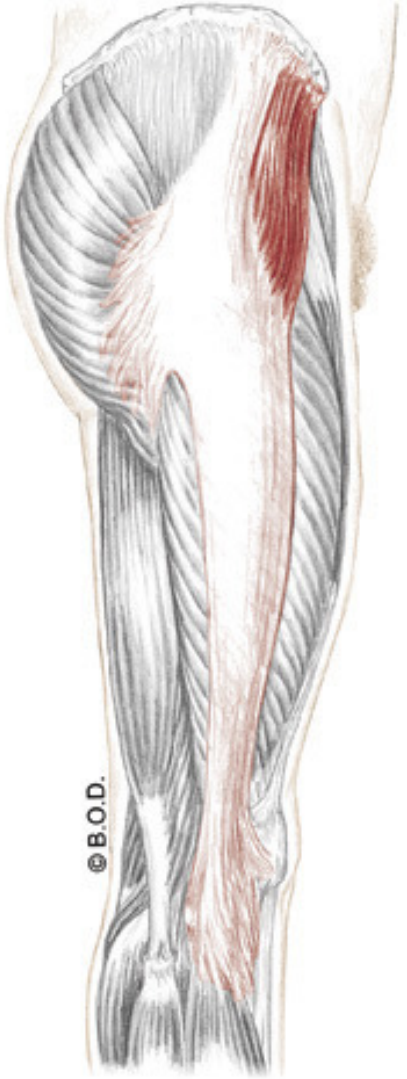
Medially rotate the hip (coxal joint)

Abduct the hip (coxal joint)

O Iliac crest, posterior to the ASIS

I Iliotibial tract





Lateral View

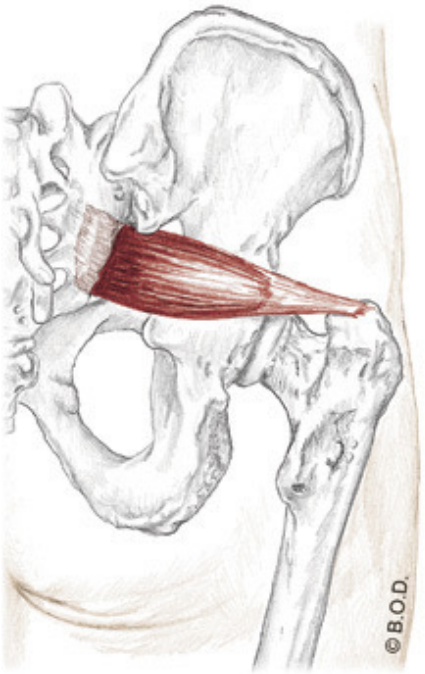
Piriformis, page 328

A Laterally rotate the hip (coxal joint)

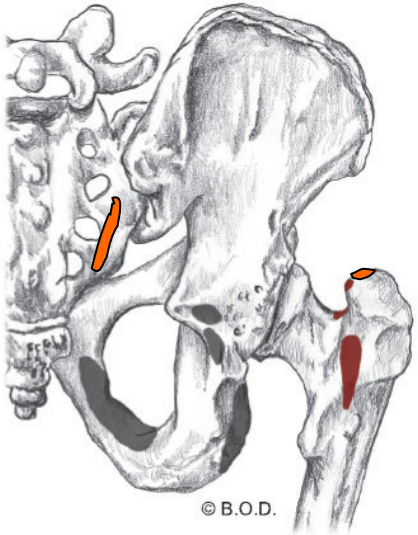
Abduct the hip (coxal joint) when it is flexed

O Anterior surface of sacrum

I Superior aspect of greater trochanter



Posterior View

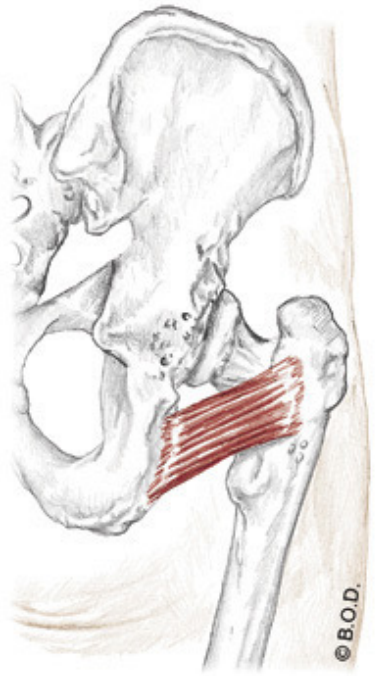


Quadratus Femoris, page 328

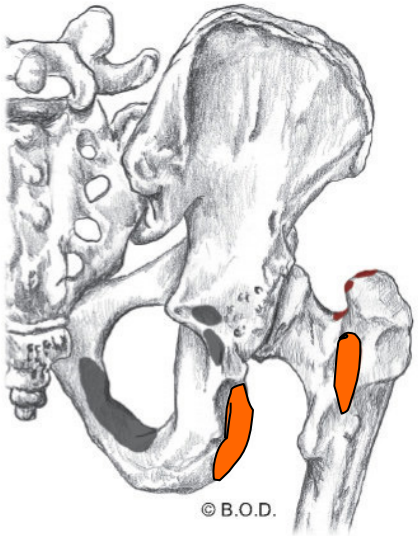
A Laterally rotate the hip (coxal joint)

Lateral border of ischial tuberosity

I Intertrochanteric crest, between the greater and lesser trochanters



Posterior View



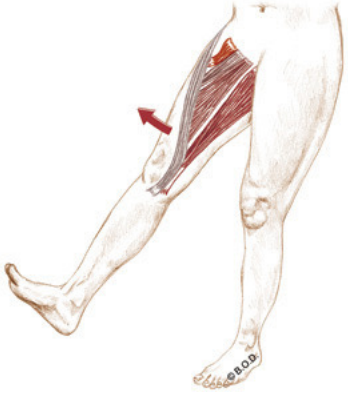
Thinking ahead ….

Which muscles are synergists in doing the following actions on the coxal joint? …

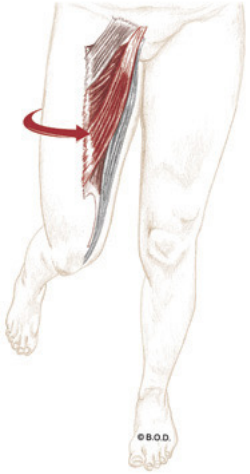
Coxal Joint

Trail Guide, page 302-304

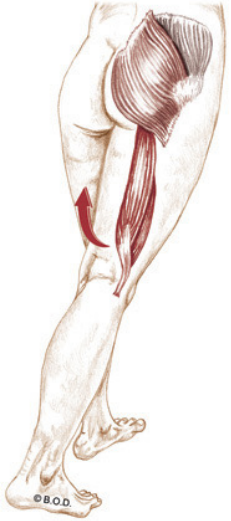
Flexion



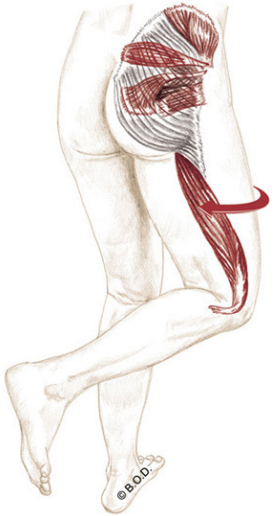
Medial Rotation



Abduction



Extension



Lateral rotation

Adduction

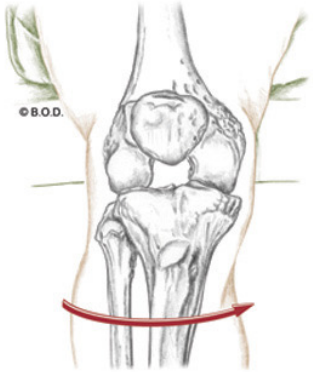
Which muscles are synergists in doing the following actions on the tibiofemoral joint? …

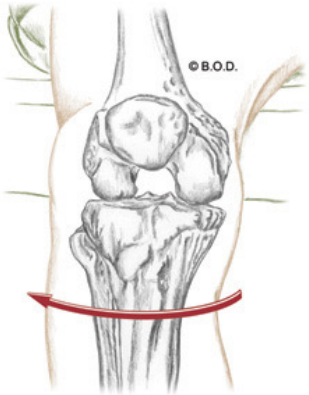
Tibiofemoral Joint

Flexion

Extension

Medial Rotation of Flexed Knee





Lateral Rotation of Flexed Knee

42b Kinesiology: AOIs - Coxal and Tibiofemoral Joint Muscles