Thigh, Hip, Groin, and Pelvis
Chapter 17

Objectives
- Identify and discuss the functional anatomy of the thigh, hip, groin, and pelvis
- Discuss the common acute and chronic injuries involving these structures

Bones
- Femur
  - Head
  - Neck
  - Greater trochanter
  - Shaft

Bones
- Pelvis
  - Innominate bones (2 – L & R)

Innominate Bone
- Ilium
- Ischium
- Pubis

Medial View  Lateral View

Joints
- Hip joint
  - Ball and socket joint
    - Femoral head (ball)
    - Acetabulum (socket)
Joints

- Sacroiliac joint

Ligaments

- Provide stability and protection against excessive movement

Other Joint Structures

- Labrum
  - like the menisci in the knee, the labrum deepens the articular surface area providing some stability to the joint

Joints

- Pubic symphesis

Ligaments

- Ligamentum teres
  - has no role in providing stability to the hip joint
  - major role is in providing a pathway for circumflex arteries which provide nutrition to the femoral head

Other Joint Structures

- Trochanteric bursa
  - Reduces friction between IT Band and greater trochanter
Muscles
- Quadriceps
- Hamstrings
- Adductors (groin)
- Hip flexors (groin)
- Hip external rotators

Anterior View

Muscles
- Quadriceps
  - Extend the knee
    - Rectus femoris
    - Vastus medialis
    - Vastus lateralis
    - Vastus intermedius
  - Flex the hip
    - Rectus femoris

Anterior View

Muscles
- Adductors
  - Adduct the thigh

Anterior View

Muscles
- Hamstrings
  - Flex the knee
    - Biceps femoris
    - Semitendinosus
    - Semimembranosus
  - Extend the hip
    - Biceps femoris

Posterior View

Muscles
- Gluteus maximus
  - Extend the hip

Posterior View

Muscles
- External rotators
  - Rotate the hip externally

Posterior View
Muscles - Lateral
- Tensor fascia latae
- Iliotibial band
- Vastus lateralis

These muscles abduct the thigh

Lateral View

Acute Injuries
- Contusions
- Strains
- Sprains (rare)
- Fractures

Contusions
- Iliac crest (hip pointer)
- Thigh
- Greater trochanter

Contusions
- Iliac crest (hip pointer)
  - MOI
  - Signs
  - Symptoms

Contusions
- Thigh
  - MOI
  - Signs
  - Symptoms
Contusions
- Thigh
  - Treatment

Strains
- Hamstring
  - MOI
  - Signs
  - Symptoms

- Hamstring
  - Testing
    - Pain w/passive stretching
    - Pain with active movement or muscle contraction
  - Treatment

- Gluteus maximus
  - Testing
    - Pain w/passive stretching
    - Pain with active movement or muscle contraction
  - Treatment

- Quadriceps
  - MOI
    - Forceful contraction with either knee extension or hip flexion
  - Signs
  - Symptoms

- Quadriceps
  - Testing
  - Treatment
Strains

- Hip flexor
  - MOI
  - Signs
  - Symptoms

- Hip adductor
  - MOI
  - Signs
  - Symptoms

- Hip external rotators
  - MOI
  - Signs
  - Symptoms

Fracture/Dislocations

- Iliac spine apophysis
- Femoral head epiphysis
- Ischial tuberosity apophysis
- Shaft of femur
- Posterior dislocation

Chronic Hip Injuries

- Trochanteric bursitis (snapping hip)
- Tendinitis
  - Origin of rectus femoris (ASIS)
  - Origin of biceps femoris (ischial tuberosity)