Hip Pain

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Goals

• Differentiate Anterior, Lateral, and Posterior Hip Pain
• Do a good exam—and know why you’re doing it
• Develop an appropriate differential based on the location and the exam
The family physician in a typical practice can expect to see a patient with hip pain every 1 to 2 weeks.  
0.61% of all visits to family practitioners, or about 1 in every 164 encounters.  
Runners report an average yearly hip or pelvic injury rate of 2% to 11%.  
NHANES III—14.3% of patients aged 60 years and older reported significant hip pain on most days over the previous 6 weeks.  
18.4% of those who had not participated in leisure time physical activity during the previous month reported severe hip pain as opposed to 12.6% of those who did engage in physical activity.
Anterior Hip Pain

- Groin pain = consider hip pathology
Anterior Hip Pain

- **Differential Dx**
  - Osteoarthritis
  - Inflammatory arthritis
  - Muscle and tendon strains
  - Tendonitis
  - Femoral neck stress fracture
  - Sports hernia (Occult hernia or tear of oblique aponeurosis)
  - Obturator or ilioinguinal nerve entrapment
  - Osteitis pubis
  - Acetabular labral tears
Muscles of Thigh
Anterior View - Superficial Dissection

- Anterior superior iliac spine
- Gluteus medius muscle
- Iliopsoas muscle
- Tensor fasciae latae muscle
- Sartorius muscle
- Vastus lateralis muscle
- Vastus medialis muscle
- Iliotibial tract
- Lateral patellar retinaculum
- Patella
- Patellar ligament
- Tibial tuberosity
- Semitendinosus tendon (part of pes)
- Gracilis tendon (part of pes)
- Sartorius tendon (part of pes)
- Rectus femoris tendon
- Rectus femoris muscle
- Medial patellar retinaculum
Anterior Hip Pain

- **Examination**
  - **Inspection**
    - Walking/Gait
    - Pelvic position/splinting
    - Atrophy/ecchymosis/bony deformity
  - **Palpation**
  - **ROM**
    - Flexion/extension/internal/external rotation
    - Strength
  - **Special Tests**
    - Thomas test
    - Snapping Hip Test
    - Hernia exam
Lateral Hip Pain

- Differential Dx
  - Greater trochanteric pain syndrome
  - Iliotibial band syndrome
  - Meralgia paresthetica
Muscles of Hip and Thigh
Lateral View

- Iliac crest
- External abdominal oblique muscle
- Anterior superior iliac spine
- Sartorius muscle
- Tensor fasciae latae muscle
- Rectus femoris muscle
- Vastus lateralis muscle
- Iliotibial tract
- Long head of biceps femoris muscle
- Short head of biceps femoris muscle
- Semimembranosus muscle
- Fibular collateral ligament
- Patellar retinaculum
- Lateral patellar retinaculum
- Patella
- Lateral condyle of tibia and Gerdy’s tubercle
- Patellar ligament
- Tibialis anterior muscle
- Peroneus longus muscle
- Extensor digitorum longus muscle
- Gastrocnemius muscle (lateral head)
- Head of fibula
Lateral Hip Pain

- Examination
  - Special Tests
    - Ober Test
    - Trendelenberg Test
Trendelenburg Test

Negative Trendelenburg test — normal
Positive Trendelenburg test — abnormal

Pelvis tilts upwards
Pelvis sags downwards on unaffected side
Insidious or spontaneous onset
- Tender over greater trochanter
  - Greater trochanteric bursitis
    - NSAIDs, consider injection
    - Physical therapy

- Tender over gluteus medius, pain or weakness with restricted hip abduction, positive Trendelenburg test
  - Gluteus medius muscle dysfunction

- Anterolateral thigh dysesthesias
  - Meralgia paresthetica
    - Modification of dress or belt-wear, consider injection

Overuse or sports-related injury
- Tender over iliotibial band and greater trochanter, positive Ober’s test
  - Iliotibial band syndrome
    - Activity modification, NSAIDs, physical therapy, consider injection

NSAIDs, nonsteroidal anti-inflammatory drugs
Posterior Hip Pain

- Posterior Hip Pain usually means Back Pain
- Evaluate for “red flags”
Posterior Hip Pain

• Differential Dx
  – Lumbar spine disease
    • Degenerative disc disease
    • Facet arthropathy
    • Spinal stenosis
  – Sacroiliac joint disorders
  – Hip extensor and external rotator muscle pathology
  – Aortoiliac vascular occlusive disease (rare)
Posterior Hip Pain

• Mostly outside the hip (back)

• Examination
  – ROM
  – Leg Length
  – Neurologic
    • Reflex
    • Strength
    • Sensory
  – Special Tests
    • FABER
    • Straight Leg Raise
    • Hyperextension
    • Gaenslen’s
• Flexion – 80°
• Extension – 35°
• Lat Bend – 40°
• Rotation – 3-18°
Figs. 24, 25. The sciatic nerve may be barely palpable at the midpoint between the ischial tuberosity and the greater trochanter. The hip must be flexed to palpate the nerve.
Fig. 30. Neurologic level L4.
PHYSICAL EXAMINATION OF THE LUMBAR SPINE

L5
NEUROLOGIC LEVEL

MOTOR
Ext. Hal. Lg.

REFLEX
None

SENSATION
L5

Fig. 31. Neurologic level L5.
Fig. 32. Neurologic level S1.
Insidious or spontaneous onset

- History of low back pain, radicular symptoms, or spinal stenosis
  - X-rays or MRI of lumbar spine
  - Lumbar degenerative disc disease, facet arthropathy, or spinal stenosis
  - Consider referral if conservative treatment fails

Overuse or sports-related injury

- Pelvic asymmetry or positive FABER test in a runner
  - Sacroiliac joint dysfunction
    - Activity modification, physical or manipulative therapy
    - If initial treatment fails, consider MRI pelvis or bone scan to rule out pelvis stress syndrome
  - Pain with resisted hip extensor or rotator testing, gluteal muscle tenderness
  - Hip extensor/rotator muscle strain
    - Activity modification, NSAIDs, physical therapy
Conclusion

• Know your anatomy
• Review your texts
• Know why you’re doing an exam