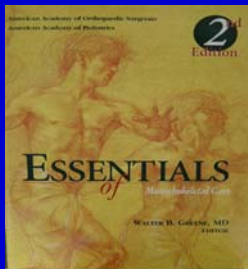


Physical Examination of the Hip & Knee

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BUY THIS BOOK!

- Essentials of Musculoskeletal Care
- Written for Primary Care Providers
- Perfect for 3rd & 4th year med students going into primary care



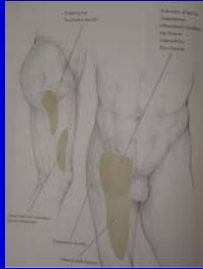
Where is your hip?

- Hip joint pain is most commonly felt in the groin and anterior thigh
- Hip joint pain may radiate to the knee
- Pain over the greater trochanter is typically trochanteric bursitis
- The buttock is not the hip!
- Buttock pain is typically from the sciatic nerve or lumbar spine



Hip Exam

- Palpation
 - Greater trochanter – bursitis
 - Pubic rami – fractures
 - Ischium – fractures, bursitis, sciatic nerve
- Meralgia Parasthetica
 - Numbness over the lateral thigh
 - Compression of the lateral femoral cutaneous nerve



Trendelenberg Test



Negative Trendelenberg



Positive Trendelenberg

Hip Exam

- Range of Motion
 - Flexion/ Extension
 - Internal/ External Rotation
 - Abduction/ Adduction
- Check in several positions
- Know where the pelvis is!
- Compare with the contralateral side
- Neurovascular exam

Hip Range of Motion

- Flexion
 - Most pts > 90
- Flexion Contracture
 - Maximally flex opposite hip to fix pelvis
 - Thigh will not lie flat on the table



Hip Range of Motion

- Hip Rotation
- Check in several positions:
 - Supine with hip flexed
 - Supine with hip extended
 - Seated
 - Prone (most accurate)



Hip Range of Motion



External Rotation

Seated



Internal Rotation

Hip Range of Motion

Prone



Internal Rotation



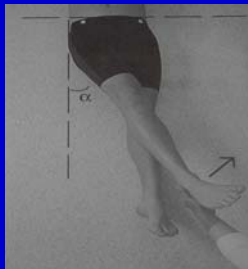
External Rotation

Hip Range of Motion

- Palpate ASIS to feel when pelvis begins to rotate



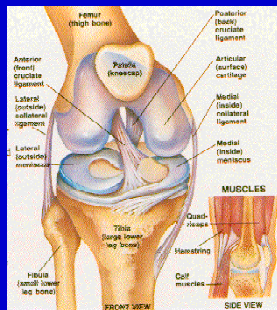
ABduction



ADDuction

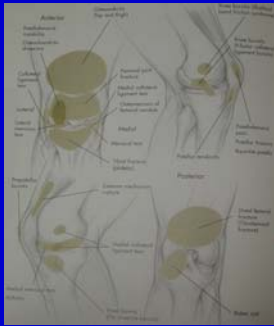
Knee History

- Knee pain stays in the knee
- Hip pain may be felt in the knee
- The knee is more complex than the hip
- More things can hurt in the knee



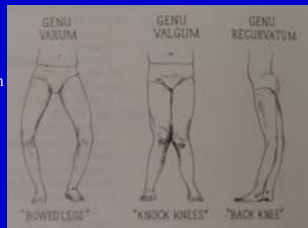
Knee History

- Location
 - Anterior, posterior, medial, lateral
 - Almost every structure in the knee except for the cruciate ligaments can be directly palpated



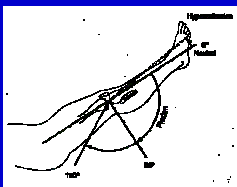
Knee Exam

- Observation
- Alignment (standing)
 - Varus/valgus
 - Procurvatum/recurvatum
- Skin
 - Redness
 - Warmth
 - Effusions
 - Lesions/wounds



Knee Exam

- Range of motion
 - Active and passive
 - Extensor lag
 - Extension (0 - -10)
 - Flexion (100 - 150)



Collateral Ligaments

Lateral Collateral Ligament

Medial Collateral Ligament



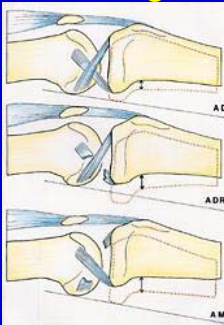
Test collateral ligaments in 20-30 degrees of flexion to isolate the ligaments.



Varus Stress

Valgus stress

Cruciate Ligaments



Cruciate Ligaments

- Ant drawer = ACL
- Post drawer = PCL
- Know where starting point is.
- Femoral Condyles are ~1cm posterior to anterior tibia normally.



Cruciate Ligaments

- Posterior Sag = PCL injury
- Quadriceps Active Drawer
 - Dynamic test for PCL
- Lachman's Test
 - Ant drawer at 30 degrees of flexion
 - Most specific for ACL
- Pivot Shift
 - Dynamic test for ACL



Posterior Sag = PCL injury

Cruciate Ligaments

- Lachman's Test
 - Ant drawer at 30 degrees of flexion
 - Most specific for ACL
- Pivot Shift
 - Dynamic test for ACL



Knee Exam

- Menisci
 - McMurray's test
 - Flex/ext with varus/valgus and int/ext rotation
 - Goal is to get torn piece to pop in and out of place
 - Positive if pop or reproduction of pain
 - Apley's grind test
 - Isolates meniscii
 - Prone w/ knee flexed, axial load and rotation



Knee Exam

- Patellofemoral Joint
 - Patellar tracking/tilt
 - Should sit horizontally in the trochlear groove and track centrally with ROM
 - Patellar grind & shrug
 - Grind patella into trochlea
 - Contract quads while applying pressure to patella
 - Both will reproduce patellofemoral pain

Go Examine Yourselves!
