

Hip Examination

Introduction

- **W**ash hands, **I**ntroduce self, ask **P**atient's name & DOB & what they like to be called, **E**xplain examination and get consent
- Undress to underwear. Ask about pain. Start on good side.
- **General inspection:** patient e.g. age, mobility, trauma, risks factors; around bed e.g. mobility aids.

Look

- **Gait:** speed, walking phases, stride length, arm swing, abnormal gaits (Trendelenburg's broad based waddling (**abductor dysfunction**); antalgic)
- **Standing inspection:** front (straight stance, pelvic tilt, any deformities (hip, knee, ankle, foot)), side (stoop, lumbar lordosis), behind (scoliosis, gluteal atrophy)
 - **Trendelenburg test:** hold the patient's ASISs from front and ask the patient to stand on one leg by bending the contralateral knee, then repeat on the other side. Normally their gluteal abducting muscles will tilt the pelvis so the contralateral (unsupported) side rises to balance. If the contralateral side dips, there is abductor muscle weakness on the side they are standing.
- **Lying inspection:** observe legs and compare sides symmetry and rotation (**one leg shortened and externally rotated = fracture of neck femur**), hip scars, sinuses, dressings or skin changes
- **Measure true/apparent leg lengths:** square hips then measure apparent leg length (xiphisternum/umbilicus to each medial malleolus) (**unequal = spinal or pelvic deformity e.g. scoliosis**) and true leg length (ASIS to ipsilateral medial malleolus) (**unequal = true limb shortening e.g. in fracture**)

Feel

Check pain first and start on normal side.

- Bony landmark tenderness: run hand up leg to greater trochanter (**pain may be trochanteric bursitis**), then to ASIS, then pubic rami
- Palpate general area for temperature & effusions

Move

Do all movements actively first (except internal and external rotation) then passively.

- Start by rolling each leg side to side
- **Flexion (130°):** test flexion while feeling for crepitus
- **Internal (30°) and external (40°) rotation:** while knee and hip are flexed to at 90 degrees, turn shin inwards (external rotation) and outwards (internal rotation) (**internal rotation lost early in OA**)
- **Abduction (45°) & adduction (30°):** place your left hand on their contralateral iliac crest to detect pelvic movement. Hold their calf in your right hand and abduct until pelvis tilts. Test adduction by crossing leg over other.
- **Extension (30°):** ask patient to lie face down. Inspect for scars and muscle wasting. Actively then passively extend. Place your left hand on their pelvis/lumbar spine to detect movement, and lift each thigh.
- **SPECIAL TESTS:**
 - **Thomas' test:** fully flex the patient's hip on one side and check lumbar lordosis is removed by placing a hand under the lumbar spine. If the contralateral thigh is forced off the couch, there is a fixed flexion deformity of that hip. Now repeat on the other side.
 - (**Trendelenburg's test:** done already)

Function

- (**Gait:** already seen)

To complete exam

- "To complete my examination I would examine the joint above and joint below, and also do a full neurovascular exam distal to the joint – would you like me to do this now?"
- Summarise and suggest further investigations you would do after a full history

Common pathology

- **Hip osteoarthritis**
 - Signs: pain, reduced ROM (internal rotation lost first), Thomas and Trendelenburg test positive in advanced OA
- **Trochanteric bursitis**
 - Signs: pain over greater trochanter
- **Childhood problems (dislocation, Perthes, SUFE)**