

Hip Examination

Introduction

Introduce yourself, explain purpose of the examination, ensure comfort and dignity throughout

Observation

Look around the couch for clues - A walking frame/stick, wheelchair. Young or old? COAD (steroids&fractures)?

Look for pain, obvious deformity (shortening, rotation, fixed flexion), scars.

Movements

As a general rule, check ACTIVE range of movement (ROM) first, and watch for signs of pain, then Passive ROM

<u>Flexion</u>	120°	Grasp Iliac Crest to prevent pelvic rotation, use other hand to test flexion. Remember - if there is a fixed flexion deformity the pelvis will be tilted to compensate. Ask the pt to flex the other hip fully - this will abolish the pelvic tilt and lumbar lordosis to give an accurate assessment of any flexion deformity (Thomas's test)
<u>Abduction</u>	30-40°	Fix ASIS's with one hand to prevent pelvic tilt
<u>Abduction in Flexion</u>	70°	
<u>Adduction</u>	30°	Move one foot across the other
<u>Lateral rotation</u>	30	In extension and flexion
<u>Medial rotation</u>	30	in extension and flexion

Measurements

Look: with the lower limbs parallel and in line with the trunk. If there is a disparity this is either because of **actual shortening** or **apparent shortening** (eg due to pelvic tilt or fixed adduction deformity—which gives the apparent shortening on that side) or **apparent lengthening** (eg due to fixed hip abduction)

Measure length: between the anterior superior iliac spine and medial malleolus on each side with the pelvis held square and the lower limbs held equally adducted or abducted.

Measure angles for Fixed deformity Joint or muscle contractures prevent the limbs from being put in the neutral position. With a fixed adduction deformity the angle between the limb and the transverse axis of the pelvis (line between both anterior superior iliac spines) is less than 90° but with fixed abduction deformity it is greater than 90°. Fixed flexion deformity is detected by Thomas's test (above).

The Trendelenburg test

This tests the stability of the hip and the ability to support the pelvis when standing on one leg. In this state, it is normal for the pelvis to rise on the side of the lifted leg. A ±ve test is when the pelvis falls on the side of the lifted leg. *Causes:* 1 Abductor muscle paralysis (gluteus medius and minimus). 2 Upward displacement of the greater trochanter (severe coxa vara or dislocated hip). 3 Absence of a stable fulcrum (eg ununited fractures of the neck of the femur).

Gait

Those with unstable or painful hips use a stick on the opposite side from affected hip. (The reverse is true for knees.)

Other joints to examine

Pain in the hip area may be due to pathology in lumbar spine, sacroiliac joints, abdomen, or pelvis.

Coxa vara This is the term used to describe a hip in which the angle between the neck and the shaft of femur is less than the normal 125°. *Causes:* congenital; slipped upper femoral epiphysis; fracture (trochanteric with malunion, ununited fractures of neck of femur); due to softening of bones (rickets, osteomalacia, Paget's disease). *Consequences:* true shortening of limb; Trendelenburg 'dip' on walking makes the affected person limp.