

Presentation

Developmental dysplasia of the hip (DDH) is the most common paediatric hip condition affecting 0.4% of live births

- **Newborns** may present with leg length discrepancy, restricted abduction or signs of frank instability (barlow/ortolani tests) but by age 6-10 weeks, signs of instability begin to resolve as soft tissues tighten.
- **In infants and children (3 months and older)** leg length assessment and combined abduction is by far the most accurate way of diagnosing DDH.
- **In children** who are walking, leg length discrepancy may be more obvious when standing. Also look for waddling gait (Trendelenberg sign) as the child swings their trunk from side to side whilst walking, to compensate for hip girdle weakness.

Risk Factors

- Breech presentation after 36 weeks gestation
- Breech presentation at delivery
- Family history of an infant requiring treatment for DDH
- Talipes on examination

Examination

Leg Length Discrepancy

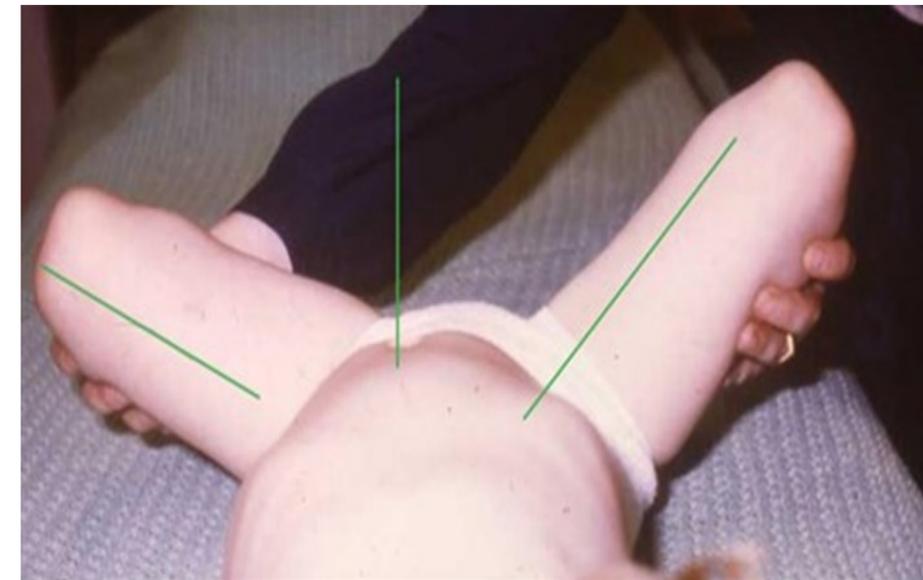
- First assess with the legs in extension and ankles held together
- Take Care to ensure the legs are square to the pelvis to prevent false disparity
- If one leg is shorter, the knee will appear to be more proximal than the other side
- The knees should then be flexed to 90 degrees with the ankles held together
- You should look from the end of the bed to see if one knee is lower than the other

Combined Abduction in Flexion

- This will show any restriction of hip movement due to a tight adductor tendon or a dislocated hip

Stability of the Hip

- Barlow Test
 - Unstable hips will sublux or dislocate on this test
 - The leg is held in flexion above 90 degrees and adducted across the midline
 - Gentle force is applied diagonally back and out to try to push the hip out of the acetabulum
- Ortolani Test
 - Reduces a dislocated hip
 - Keeping the hip in more than 90 degrees of flexion, the hip is maximally abducted
 - If the hip is dislocated and reducible, it should slip back into the joint with a loud clunk
 - You will feel a big shift in movement and see a change in the shape of the soft tissues in the thigh
 - If the hip is not reducible then there will be restricted abduction as shown in the picture



Referral

Routine

- Breech presentation
- Family history of an infant requiring treatment for DDH
- Talipes on examination
- Reproducible click (not clunk of instability) on examination
- Over the age of 5 months
- AP pelvis X-ray should be requested prior to the appointment and images sent
- Ultrasound is not useful in this age group

Urgent

- Under the age 5 months
 - Leg length discrepancy
 - Restricted abduction in flexion
 - Frank instability of the hip on Ortolani or Barlow tests
- Referral should be sent to the hip instability clinic via e-referral T and O Paediatric Hip Screening Ultrasound (aged <6 months) RVI marked as urgent if required
- An appointment should be sent within 2 weeks of referral