Orthopaedic Department

Developmental Dysplasia of the Hip



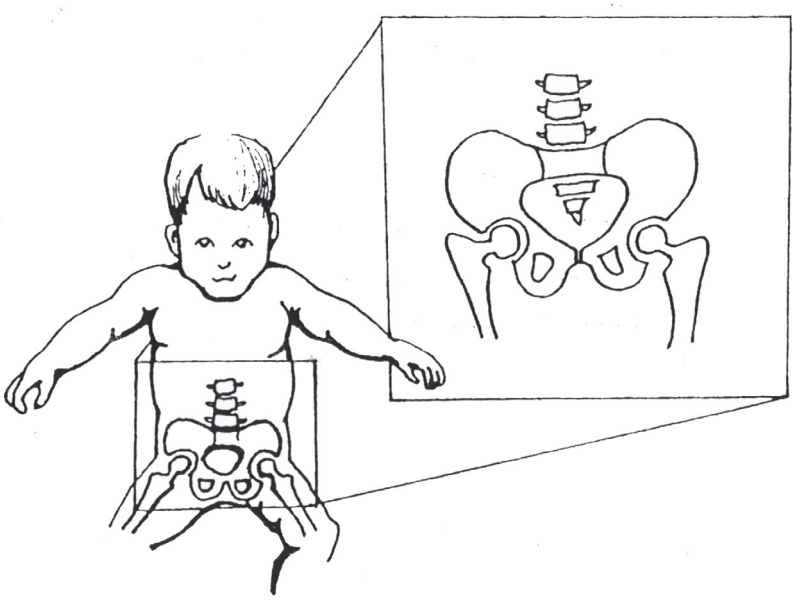
What is Development Dysplasia of the Hip (DDH)?



DDH was previously known as congenital dislocation of the hip (CDH). The name was changed because many hips are not dislocated at birth (congenital) but become dislocated due to abnormal growth (dysplasia) of the hip joint as the child develops. Hence, developmental dysplasia more accurately describes this condition.

The hip joint consists of a ball-shaped upper end of the thighbone (femoral head) and a cup-shaped socket (acetabulum) in the pelvis which normally fit together snugly, as shown in Figure 1 (below)

Figure 1 – The hip joint is formed by the femoral head and acetabulum



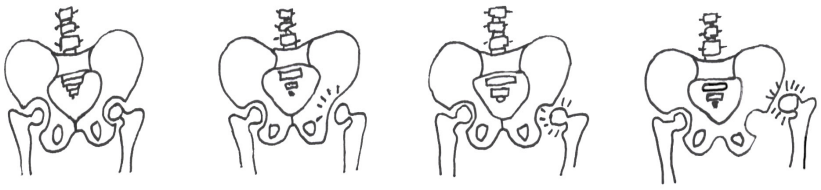
compassionate care

DDH, may lead to abnormal hip development. Like many other conditions, DDH can vary in severity:

- In the mild form, the acetabulum is too shallow, being shaped like a saucer instead of a cup (Figure 2). In these cases, the hips are said to be dysplastic.
- In subluxated hips, the femoral head comes partially out of its socket, making the joint unstable (Figure 3);
- The hip is said to be dislocated when the DDH, may lead to abnormal hip development. Like many other conditions, DDH can vary in severity:
- In the mild form, the acetabulum is too hallow, being shaped like a saucer instead of a cup (Figure 2). In these cases, the hipsare said to be dysplastic.
- In subluxated hips, the femoral head comes partially out of its socket, making the joint unstable (Figure 3);
- The hip is said to be dislocated when the femoral head rests completely outside the acetabulum (Figure 4).

The Hip Joint Abnormalities in DDH

Figure 2 Figure 3 Figure 4



Normal Dysplastic Subluxated Hip Dislocated Hip

What causes DDH?

DDH may develop between birth and the time of walking. It is most commonly caused by looseness (laxity) of ligaments which hold together the hip joint, or a shallow socket (acetabulum) which may allow the femoral head to dislocate. DDH is generally one-sided but in 10% of cases both hips are affected.

Some risk factors for DDH

- Girls are 5 times more likely to be affected than boys.
- It is more common in first-borns.
- Breech presentation.
- There is a familial tendency.

How common is DDH?

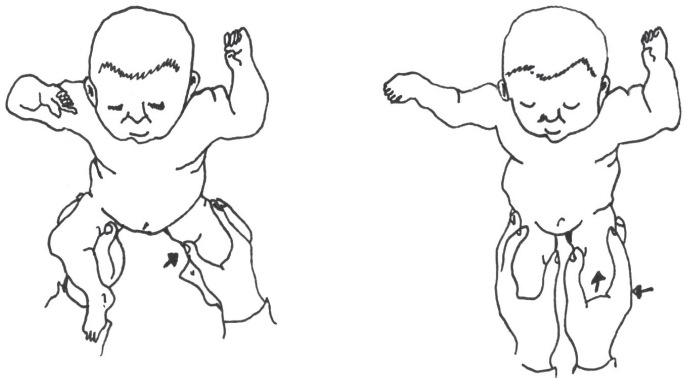
About 1 in 80 infants have evidence of hip instability at birth, but in 80% of cases, their hips become stable within the next few weeks and develop normally. 2 in 1000 children go on to develop DDH, with either dysplastic (shallow) or dislocated hips.

How is DDH detected?

As with many other conditions, the earlier DDH is detected, the easier it is to treat. It is a painless condition and the signs are subtle.

Children are examined by a doctor, Health Visitor or midwife for hip instability at birth, 6 weeks and 6 months of age. The doctor performs some simple manoeuvres to test the stability of the infant's hip joints, as shown in Figure 5. By moving the infant's legs into various positions, the doctor is able to detect if the hip joints are dislocated or loose.

Figure 5 – The doctor tests the stability of the infant's hip joint



Infants who have specific risk factors for DDH, such as a family history or breech presentation also have their hips assessed with an ultrasound scan within the first two months of birth.

In children over 6 months of age, the hips are starting to change from cartilage to bone, and DDH can be detected with an X-ray.

Unfortunately, even with these examinations, not all children are diagnosed before they begin to walk.

What are the symptoms and signs of DDH in a child?

DDH may be suspected in children in whom one leg appears shorter than the other, or if there are asymmetric skin folds on the inner thighs. With the onset of walking, a child with undiagnosed DDH may walk with a limp, although it is painless. There will also be restricted movement in the affected hip.

If your doctor thinks your child might have DDH, they will refer you to an orthopaedic surgeon (bone specialist) who will check your child's hips, make a diagnosis and start any treatment if necessary.

Why is it important to diagnose and treat DDH?

Hips that are abnormal after the newborn period and remain untreated wear faster than normal hips. Adults with untreated DDH will walk with a limp, have legs of unequal length and may develop early arthritis in the hip.

What is the treatment for DDH?

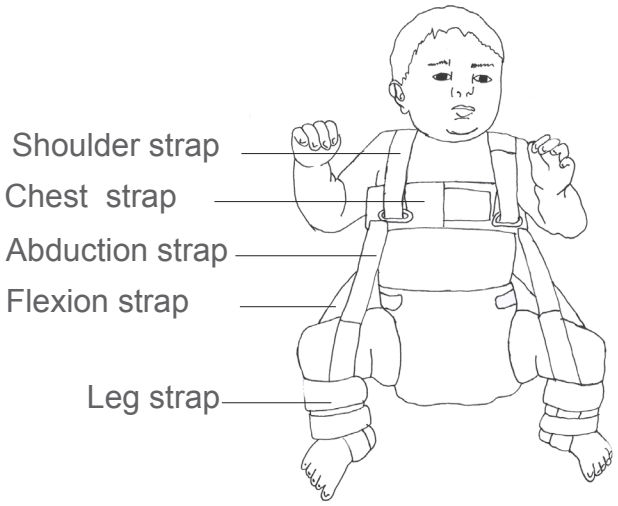
Essentially, the treatment for DDH aims to put the femoral head back into the acetabulum, and to hold the joint in place until it becomes stable.

The methods used to achieve this depend on the age of the child .

Age 0 to 6 months

If the condition is detected, the treatment involves placing the child in a Pavlik Harness, shown in Figure 6. This is a Velcro splint that gently holds the hips up and outwards to help normal development of the acetabulum or 'socket'.

Figure 6 – Child wearing the Pavlik Harness



The Pavlik harness is worn continuously for 12 week periods and is successful in 90-95% of cases. Treatment stops when the ultrasound is normal. A small minority of children may require an operation.

Age over 2 years

Surgical treatment is almost always required for children with previously undetected DDH in this age group. There are various procedures which can be performed, and you can discuss with your orthopaedic surgeon which is best for you and your child. Whilst at this stage the treatment is technically more demanding, the overall prognosis for long-term function is good.

Tips for parents

- Don't panic. Most cases of DDH are treated successfully and without operation.
- Please ask questions.
- Follow instructions about harnesses and casting carefully.
- Treat your child as normally as possible and encourage your child to resume normal activities as soon as medically recommend.

Problems

Telephone the Orthopaedic Out-patient Department/Treatment Room if you have any concerns. The number to ring at Huddersfield Royal Infirmary is (01484) 342559 and Calderdale Royal Infirmary is (01422) 223663. Please ask to speak to the Staff Nurse familiar with DDH.

If you have any comments about this leaflet or the service you have received you can contact :

Orthopaedic Department
at
Huddersfield Royal Infirmary
Telephone No: (01484) 342559
or
Calderdale Royal Hospital
Telephone No: (01422) 223663

www.cht.nhs.uk

If you would like this information in another format or language contact the above.

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

ਜੇ ਤੁਸੀਂ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਪ੍ਰਾਰੂਪ ਜਾਂ ਭਾਸ਼ਾ ਵਿੱਚ ਲੈਣਾ ਚਾਹੁੰਦੇ ਹੋ,
ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

اگر آپ کو ہی معلومات کسی اور فارمیٹ یا زبان میں درکار ہوں، تو
برائے مہربانی مندرجہ بالا شعبے میں ہم سے رابطہ کریں۔

"إذا احتجت الحصول على هذه المعلومة بشكل مغاير أو مترجمة إلى لغة مختلفة فيرجى منك الاتصال بالقسم المذكور أعلاه"