Steps
We don't take walking for granted

Baby Hip Health

The Parents' Guide

Introduction

This booklet is for all parents. It explains why a baby's hips are checked at birth, what the tests are and what happens if a problem is found. It also tells you how to keep your child's hips healthy.

Support when you need it

If you are worried about the results of your baby's examination, being able to contact someone who knows what you are going through can be a great help. Our family contact service can put you in touch with others who have shared a similar experience.

Our Facebook group is another fantastic resource of helpful tips and practical advice written by parents who are coping with a child with a hip problem. You can share your problems and find solutions to everyday challenges.

No matter how big or small your concern our helpline team are available to offer an expert ear and support in complete confidence. Telephone 01925 750271 or email info@steps-charity.org.uk

Most children can be treated simply and successfully and go on to lead healthy active lives with no long-term problems. Some babies do have more complicated problems and treatment may be more difficult.

How does a baby's hip grow?

The hip joint is called a ball and socket joint. The top of the thigh bone is ball-shaped and fits into a socket on the side of the pelvis. This allows the leg to move both up and down and side to side.

For the hip joint to grow normally the ball-shaped head of the thigh bone needs to be inside the cup-shaped socket. It is held in place by ligaments, muscles and a joint capsule. Very young babies' hips are made of soft cartilage which changes into bone over the first few years. For the joint to grow properly the ball and socket have to be held firmly in the right place.

Why are babies' hips checked at birth?

All babies' hips are checked at birth and at 6-8 weeks as part of a national screening programme called the Newborn Infant Physical Examination (NIPE). This is because some babies may have hips that are not properly in joint or not shaped perfectly, a condition called Developmental Dysplasia of the Hip (DDH). Some babies seem to be more at risk of developing DDH than others.

Some studies have shown that developmental dysplasia of the hip (DDH) requiring some form of medical intervention (such as a special splint or harness) affects 1-3 in 1,000 new-borns by the time of their 6 week check, with many more having a slight instability at birth that will improve without intervention.

A long-term UK study stated that 6% of babies are born with some form of hip instability, with other figures stating mild neonatal hip instability is present in as many as 15% of babies (although this is not DDH). At a current UK annual birth rate of around 700,000, this could equate to more than 100,000 babies with some form of neonatal hip instability.

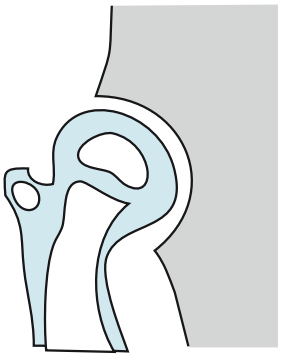
What is DDH?

DDH means the ball and socket do not fit snuggly together: there are varying degrees of severity.

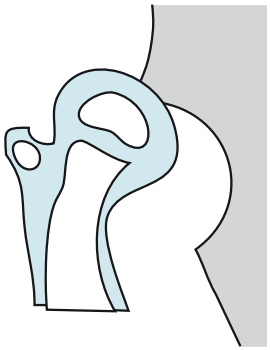
If the ball (femoral head) is not held safely in place, the socket (acetabulum) may be more shallow than usual; this is called acetabular dysplasia. Sometimes this makes the joint less stable and the ball may slide in and out of the socket, this is called a dislocatable or subluxatable hip. If the ball loses contact with the socket and stays outside the joint it is called a dislocated hip.

These are all forms of DDH. One or both hips may be affected. The majority of cases are successfully treated in a special splint or harness. Around 5% of babies diagnosed with DDH require surgical treatment and a tiny fraction of these may require some further surgery in early childhood.

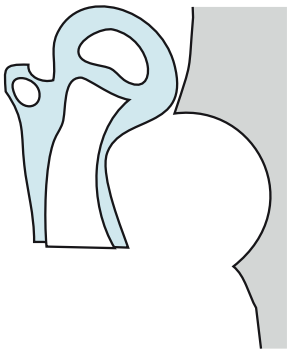
femur within the Head of acetabulum



Normal Hip



Subluxation Hip



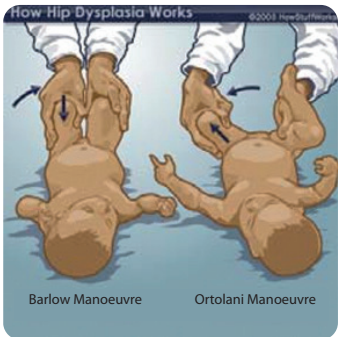
Disclocation Hip

How are the hips checked?

During the examination, the healthcare professional will note how your baby holds his or her legs at rest. They will check to see if the legs are the same length, lie in a similar position and whether the natural thigh creases at the groin are symmetrical.

The baby's hips are gently manipulated to see if they are safely in joint by tests known as the Ortolani and Barlow tests.

During the Barlow Manoeuvre, gentle downward pressure is applied to the leg to feel for the stability of the hip joint. In the Ortolani Test, the baby is laid on his or her back and the hips are moved gently outwards. A distinctive 'clunk' (which is felt but not heard) suggests a possible abnormality and the joint may be classed as unstable. It may be caused by the head of the thigh bone moving in and out of the socket. 'Clicky' sounds are not usually important: a 'clicky hip' can be entirely normal. If a 'clunck' is felt, the Barlow Manoeuvre is gently repeated to reposition the affected hip.



When the test shows a potential problem it is called a positive test, while a test that reveals no problem is called a negative test. The health professional will ask questions to find out if there are special risk factors that are associated with DDH. It is wise to discuss any family history of childhood hip problems now, if an opportunity has not arisen before.

What are these risk factors?

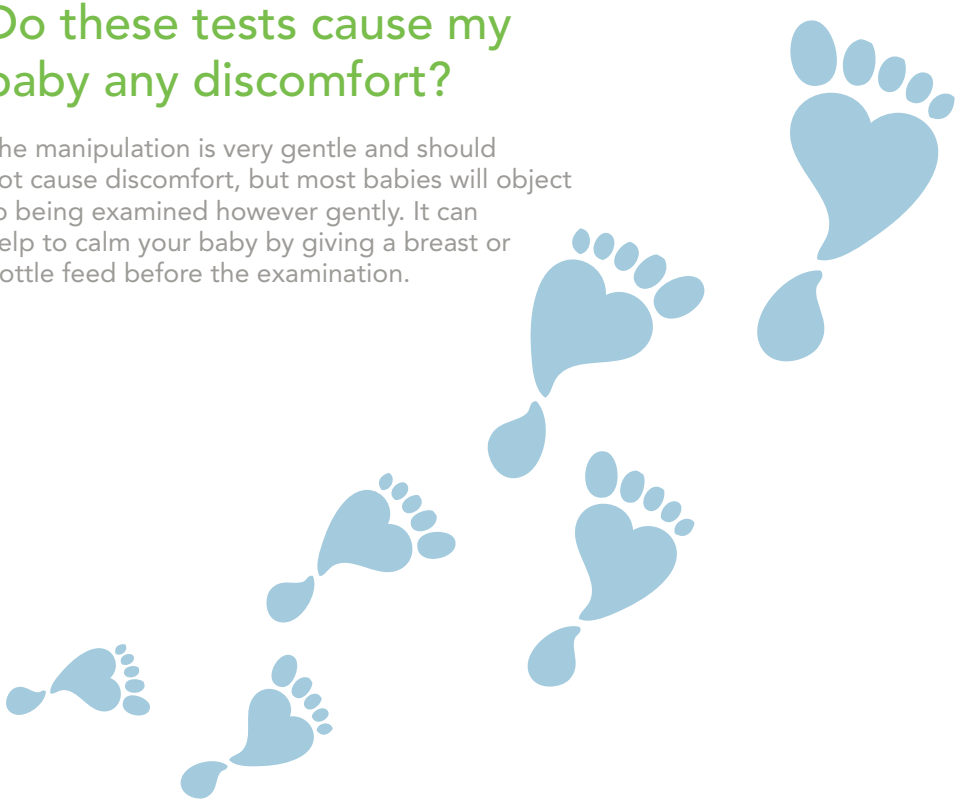
DDH can happen to any baby but some factors make the condition more likely. The two most important risk factors are:

- A baby born by breech or who was in the breech position in the last three months of pregnancy (regardless of eventual delivery position).
- A close family history of DDH or hip problems that came on in early childhood.

DDH is more common in first pregnancies and in baby girls and is more common in babies who have mild foot abnormalities or tightness in the neck. Usually, however, there is no identified risk factor and it is not known why a baby has the condition.

Do these tests cause my baby any discomfort?

The manipulation is very gentle and should not cause discomfort, but most babies will object to being examined however gently. It can help to calm your baby by giving a breast or bottle feed before the examination.



My baby's hip test is negative, but I have been told he/she still needs an ultrasound. Why?

As mentioned above, there are specific DDH risk factors that you need to discuss with your medical team. According to NIPE guidelines, your baby should have a hip ultrasound within 6 weeks:

- If there is a history of early childhood hip problems in your family: OR
- If your baby was in the breech position:
- At or after 36 weeks of pregnancy even if the baby turned round and was then delivered head first:
- Born before 36 weeks in a breech position:
- In a multiple birth, if any of the babies are in either of the groups above, every baby should have an ultrasound examination.

My baby's hip test is positive, what happens next?

An ultrasound will be carried out within two weeks if the examination is abnormal.

A more senior or experienced clinician may also examine your baby's hips.

What is an ultrasound examination?

This is a harmless procedure very similar to the ultrasound used in pregnancy. It helps the doctors to obtain an accurate image of the hips to see if they are well-formed and safely in the right place.

It can identify abnormalities of the shape of the ball and socket and see if the ball is unstable - whether it displaces out of the socket. These problems are not always felt when the hips are tested by hand. Sometimes, the ultrasound test may be normal when the physical examination suggested there might be a problem.

Adminstering Ultrasound

A problem has been identi
development of my baby'
What happens next?

Depending on the results of the tests your baby will be treated or monitored. He/she will be referred to an expert clinician, generally a children's orthopaedic surgeon, who can usually start treatment before your baby is 3 months old. Some centres start treatment immediately after the ultrasound diagnosis.

Most of the minor abnormalities seen on ultrasound do not cause any problems with hip development which means that the test has suggested a problem which usually gets better without treatment. It can be better to wait to see if these minor abnormalities resolve without treatment.

My child has had a positive diagnosis of DDH - is treatment necessary?

Early diagnosis gives the best chance for effective treatment. Untreated, developmental dysplasia of the hip becomes more difficult to treat as the child gets older and there is a risk of developing osteoarthritis of the hip as an adult. As DDH may cause leg shortening other problems may follow in the spine, knee and ankle.

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/'s hips.

What is the treatment for DDH?

This varies with the severity of the problem and the age of the child. Most babies are treated in some form of a splint, such as a Pavlik harness, which keeps the hips flexed and abducted, so the legs are held splayed apart in the best position to encourage normal growth. The splints can be made from webbing, plastic or plaster of Paris.

A few children's hips do not respond to early treatment and some are not detected until they are older. The approach to treatment for this group is different and a number of treatment options are available.

These may include admission to hospital for special x-rays and a short period of traction, a small operation in the groin area under a general anaesthetic or a more extensive operation to put the ball and socket in place. After these more complex procedures it is normal to put the child in a plaster of Paris/fibre glass cast known as a hip spica - a full body cast enclosing one or both legs.

Children who need to have their hips put back into place after infancy need to be monitored until they are fully grown.

Steps produces information on looking after babies and children in splints and plasters.

For further information, please call Steps helpline on:

01925 750271

or email us at:

charity.org.uk

Can the tests pick up all hip problems?

The hip checks are not 100% accurate. The physical examination only detects hip instability at the time of the examination. This means that some babies hips might appear to be normal at the time of the tests but develop problems later. As formal checks finish after the 6-8 week check, parents or grandparents are often best at noticing signs of a hip problem. Do remember that a hip not properly in joint does not hurt in childhood.

If you notice any of these five signs you should contact your health professional:

- When changing a nappy one leg does not seem to move outwards as fully as the other or both legs seem restricted.
- Your child crawls with one leg dragging.
- Deep unequal creases in the buttocks or thighs.
- Inequality in leg length.
- A limp if one leg is affected or abnormal 'waddling' walk if both hips are affected.

When your baby is undergoing routine developmental checks do be sure to mention any concerns. Health visitors and doctors are aware of hip problems and should check carefully that your child's walking is normal.

Is there anything I can do to prevent DDH?

When DDH occurs, it is important to understand that it is not anyone's fault. Fortunately, most babies born with unstable hips get better with no treatment.

New mothers make hormones that help ligaments relax during the birth.

These relaxing hormones can stay in a baby's bloodstream for a few weeks making it normal for babies' hips to be 'stretchier' and looser shortly after birth. Babies' hips are always flexed so their thighs lie against their stomachs. They should be allowed to kick them straight on their own and not be stretched out. It is important to leave the hips free to move and not tightly strapped down with the legs straight out and pressed together. Let your baby hold his or her hips bent up as they were in the womb and allow room for the legs to move freely.

There is conflicting opinion on what activities could hinder normal hip development, but it is generally agreed that tight swaddling should be avoided to allow healthy hip formation. For more information on safe swaddling contact Steps.

Given that some degree of hip instability is not uncommon in newborns, taking care of your baby's hips is vital for their long-term hip health. It is important to leave the hips free to move. Many parents prefer a specially designed baby 'sleeping bag', which allows plenty of room for healthy hip positioning.

Baby sleeping bag photo courtesy of Grobag

steps-charity.org.uk

Helpline: 01925 750271 Email: info@steps-charity.org.uk

Steps Charity Worldwide @Steps_Charity

Steps registered charity number 1094343

Company number 4379997

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Weblinks:
The NHS Newborn and Infant Physical Examination Programme (NIPE):
www.newbornphysical.screening.nhs.uk
International Hip Dysplasia Institute information on how to swaddle your baby:
www.hipdysplasia.org/default.aspx

Acknowledgements: We would like to thank the parents and health professionals who have reviewed this booklet.

'How hip dysplasia works' image courtesy of 'How stuff works'
'Hip examination' image courtesy of NIPE

Steps is the national charity working for all those whose lives are affected by childhood lower limb conditions

BMA 2005 Patient Information Award

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FRSB give with confidence