What Is Developmental Dysplasia Of The Hip?
How Can It Be Treated?
Information For Parents and Carers
Developmental Dysplasia Of The Hip (DDH)

This is the first in a series of five booklets which have been written to help you understand more about your child’s condition and to give you an insight into what will happen in hospital and how to care for your child at home, whilst in a hip spica.

What Is DDH?

DDH is an abnormal formation of the hip joint, in which the femoral head that is the ball at the top of the thigh bone does not fit within the socket (acetabulum) correctly, making the joint as a whole unstable.

The disorder ranges from a mildly underdeveloped acetabulum (socket) to complete dislocation of the femoral head (ball).

What Causes DDH?

Development dysplasia of the hip or DDH is caused by developmental problems which occur whilst the child is in the womb.

The occurrence of DDH is higher in girls. The main risk factors are breech presentation and a family history of the disorder.
Treatments For DDH

Treatment is generally recommended for DDH since an abnormal hip joint may result in limping and pain later on in life. There are two possible treatments your child may have for DDH.

1. Closed Reduction

Closed reduction is where the thigh bone is placed into the socket without any surgical incision being made. This is more likely to be performed in a baby under the age of one year. The femoral head is gently manipulated into the socket, whilst the child is under anaesthetic.

Once the femoral head is in place, a hip spica is applied and can remain in place for up to four months to maintain the hip in the correct position. This allows time for healing and for the socket and the thigh bone to mould together as a joint.

2. Open Reduction

An open reduction is more likely to be required if your child is over the age of one year. This form of treatment may occur in two stages and therefore your child may have two operations.

The aim of an open reduction is the same as that of a close reduction but with one difference. A surgical incision is made either over the hip joint or in the groin and the two bones (the socket and thigh bone) are surgically manipulated into a better/correct position. Again, a hip spica is applied for up to 6–8 weeks. Following this the spica is changed and usually a second operation is performed.
This second stage is known as a de-rotational femoral osteotomy.

The second stage is usually followed by a further 6-8 weeks in a hip spica. If your child has already had the first part of the operation carried out then you will notice that their affected leg is in an awkward position. The top part of the leg is rotated inwards and the knee is bent so the bottom part of the leg is sticking out at an unusual angle.

In the second stage of the process, the femur (thigh bone) is cut (femoral osteotomy) and the leg is then turned or rotated back outwards and the knee straightened so both legs are straight and apart in a triangle shape. Metalwork will be inserted to hold the bones in place whilst they heal. The metalwork will be removed at a later date. The legs now appear to be in a straighter position and by being in a hip spica; the hip also remains in joint and allows the bones to heal.

In some cases (usually in the older age group) the Surgeon may decide to re-align the socket (acetabulum) in order to gain better cover for the femoral head (ball). This is done in addition to the open reduction, during the initial procedure through the same incision, metal wires may be used to keep the socket in the correct place. These are removed at a later stage.
Risks

As with any surgical intervention there are some risks. The risks associated with both a closed and open reduction surgery for DDH include:

• Risks associated with anaesthesia.

• Re-dislocation (the femoral head may come out of the joint again).

• Avascular necrosis (interruption of the blood supply and flattening of the femoral head). Flattening of the head will need long term monitoring as it may lead to arthritis later in life.

• Joint stiffness and fractures following the removal of the hip spica. Fractures may occur since plaster immobilisation results in weakness of the bones.

• The risks associated with an open reduction include infection and damage to nerve and blood vessels.

Whilst every effort is taken to minimise these risks there is a 5% possibility of one of these occurring. These risks have to be balanced against the effect of not treating your child, which will result in limping and pain.

If you have any concerns or questions regarding these procedures and possible complications you should discuss these with your child’s Consultant.
What Is A Hip Spica?

A hip spica is a large plaster cast, which encases the body and the legs, from the hip to the foot. The spica is applied to rest the hips, promoting healing of the affected hip. The cast is made of either Plaster of Paris or Fibreglass (Dynacast) or a combination of both.

The cast encases the body from the chest, down the affected leg/s. If only one hip needs rest, the plaster extends to just above the knee of the unaffected side. The legs are spread apart and may be held in position by a stick attached to the cast. An area around the groin is left free of plaster to allow for toileting.
Contact Number

If you have any concerns you can contact Ward 78 on telephone number 0161 701 7800 The other booklets in this series are:

- Coming into hospital
- Going home from hospital
- Removing a Hip Spica
- Hip Spicas – A quick reference guide

Translation and Interpretation Service

Do you have difficulty speaking or understanding English?

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