
Paediatric Orthopaedics

Neuromuscular Hip Reconstruction – Information about Surgery

This information sheet has been prepared to help you understand the operation, the expected course whilst your child is in hospital and the rehabilitation and recovery process following the operation.

Hip reconstruction surgery involves the realignment of the thigh bone (femoral osteotomy- cut to femur), hip socket (pelvic osteotomy-cut to pelvis) or both, to correct specific bony mal-alignments and to restore the normal anatomy of the hip in order to put the hip back in its joint and make sure that it is stable. Sometimes it is necessary to release a tendon in the groin called the adductor tendon (adductor tenotomy). The surgery is performed through a cut (incision) in the groin and thigh.

The short term goal for having the surgery is to reduce the amount of pain and improve the position of the head of the thigh bone in the socket. The long-term goal would be to improve balance, including sitting posture and standing balance where applicable.

The amount of actual surgery your child will require will depend on the severity of the problem. For example, some children need a pelvic osteotomy in addition to their femoral osteotomy. Some children need both hips operating on at once. Due to the different degrees of severity of the problem leading to surgery, the type of surgery and the aftercare will vary between patients.

The information on this sheet is therefore for guidance only and you will need to discuss your child's case individually with the consultant and physiotherapist.

After surgery, the legs have to be held in a position where the hip joint is most stable whilst bony healing takes place. Osteotomy (cut bone) takes between three to six months for the bone to have solid bone healing. However, the hip joint only needs to be held in position for a few weeks. Children should not weight bear until the osteotomy sites have solid bone healing (as determined on x-ray).

Depending on your child's the age and extent of hip surgery, a removal hip abduction brace or alternatively a hip spica will be used.

What is a removable hip abduction brace?

This is a custom made splint which keeps the legs apart with the broomsticks. The brace consists of two removable cylinders, one on each thigh, made out of synthetic plaster cast. They rarely extend below the knee.

Generally, we recommend the brace is worn all the time for the first two weeks post-op and then can be worn at night and rest times between weeks two to six post-op. This means your child can wear normal clothes, be bathed and sit in their normal seating.

What is a hip spica?

A hip spica is a plaster cast that extends from the child's waist, around the pelvis and usually down to the ankle on the side of the operation. On the non-operated side the cast may only extend to just above the knee. It will have an opening for toileting purposes.

By contrast, the hip spica cannot be removed for the duration of its use.

Hospital stay

Your child will probably be in hospital for a few days until the team is happy that all transfers can take place safely, the pain is well controlled and that any additional equipment that is needed for home is in place.

Pain

Whilst your child is in hospital, the doctors and nurses will make sure that your child is kept as comfortable as possible throughout his/her treatment. Pain can be managed in several ways; medication or distraction. If your child is in pain, please talk to your nurse. After discharge, if your child is in pain, please contact the nurse specialist (contact numbers at the end of this leaflet) during normal working hours or please contact the ward or on-call GP outside normal working hours.

Equipment

There are several attachments that you may see attached to your child:

- Catheter: A small tube that goes from your child's bladder and drains their urine
- Cannula: This inserts into your child's hand or the crease of your elbow and aids nurses in administering medicines.
- PCA: A machine that delivers medicine to your child to help with pain. It will be attached to the cannula. The nurse will press the button which gives the medicine. It will be removed after a couple of days.
- Epidural: provides pain relief to the lower body.

Toileting

Hip abduction brace

As the genital area is free, there are no significant restrictions to toileting. However, children who are toilet trained will need greater assistance for the first two weeks when the brace is being worn 24 hours.

Hip spica

The plaster needs to be kept as clean and dry as possible in order to prevent your child from getting sore. There is an opening for hygiene in the plaster. The best method we have found is to cut out the pad of a smaller nappy or use a large sanitary towel and tuck this within the opening to absorb any soiling. A larger size nappy can then be placed over the top, around the outside of the plaster. The nappies will need checking more frequently than normal to make sure they don't leak.

It is common for swelling and bruising to appear post surgery around the groin area under the cast.

Equipment/mobility

Hip abduction brace

Although, after the first two weeks, the brace is only worn at night time and rest times, we have found that for practical purposes, hoisting children is easier with the brace on.

We liaise with the community therapy team as often children need wider seating for the first 6-12 weeks. Some children benefit from temporary use of chunc chair which the local physiotherapist may be able to organise.

Hip spica

Your child will have specific seating requirements in a hip spica, due to the width and shape of the cast. Your child will not be able to sit fully upright as the cast starts above the waist so they will need a reclining chair with elevated leg rests for safe support. Your child's community occupational therapist (OT) and physiotherapist will make arrangements early on to provide you with the appropriate seating. You may find that the same buggy you already have may be suitable. Big bean bags and cushions are also useful at home for your child to lie on as they mould to the position the child is in.

Manual handling

Your child's manual handling needs will be assessed post-operatively by the therapy team. We have found that discomfort during transfers settles within a few weeks after surgery and many of our children return to school in a graduated manner.

Dressing

Hip abduction brace

During the first two weeks post-surgery when the brace has to be worn at all times, loose clothing may be advantageous.

As this is removed after two weeks post-op, there is no significant clothing needs after this point.

Hip spica

You may have to adapt some clothes to fit around the spica, such as pants and shorts. Try cutting down one side and fitting Velcro or ties. Also loose dresses, skirts and jogging bottoms are useful.

Bathing

Hip abduction brace

During the first two weeks post-surgery, as the brace should remain worn at all times, a strip wash should be completed.

After week two, your child can be bathed/showered with appropriate hoisting considerations.

Hip spica

You cannot bath your child when in a cast. Strip washing with a damp sponge or flannel is recommended for cleanliness.

Positioning/sleeping

Hip abduction brace

There are no specific recommendations in regards to inclination of seating. The child's comfort should be the guide. Hip abduction brace must be worn at night for the first six weeks, so lower limb sleep systems should not be used in this time. The child can have cushions under knees and lie on their operated side or on their tummy as comfortable.

Hip spica

It is important that your child is well positioned to avoid discomfort and pressure sores developing whilst in the hip spica.

Areas that are most vulnerable are the lower back, ankles and heels. Check these areas regularly and make sure that your child changes position frequently. Also try to lift pressure off your child's heels by using pillows under the legs. It is important to check the areas where the plaster finishes, around the top, on the tummy and the back and where the plaster finishes on the legs for redness and sores.

We recommend that your child has some periods on their tummy to encourage air flow around the plaster with adult supervision.

If your child is unhappy, in pain or if there is any staining on the plaster, this may indicate a sore underneath the plaster, which cannot be seen. In this instance you need to contact the plaster room (number shown below).

Follow-up –Hip abduction brace

Your child will have an X-ray to check the healing and position of the hip, between six to eight weeks post-surgery. If the position is satisfactory and bone cuts are healing, the child can progress to next stage of rehabilitation.

At six weeks post-surgery, the hip abduction brace can be discarded if the check X-ray is satisfactory. Non-weight bearing exercises can begin including hydrotherapy where indicated and if check X-ray is satisfactory.

Standing, including use of standing frames should wait until bone healing is solid which will be determined on X-rays, occurs between three to six months after surgery.

Follow-up- Hip spica

Hip spica follow-up is similar once the spica is off. The doctor will inform you when weight bearing can commence and other activities, such as hydrotherapy.

Contact details:

- Specialist Orthopaedic Nurse: 01223 254996, Bleep 159126
Physiotherapy team email: add-tr.paedorthophysio@nhs.net
- Plaster Room Ext: The plaster room Tel: 01223 217772



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Document history

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