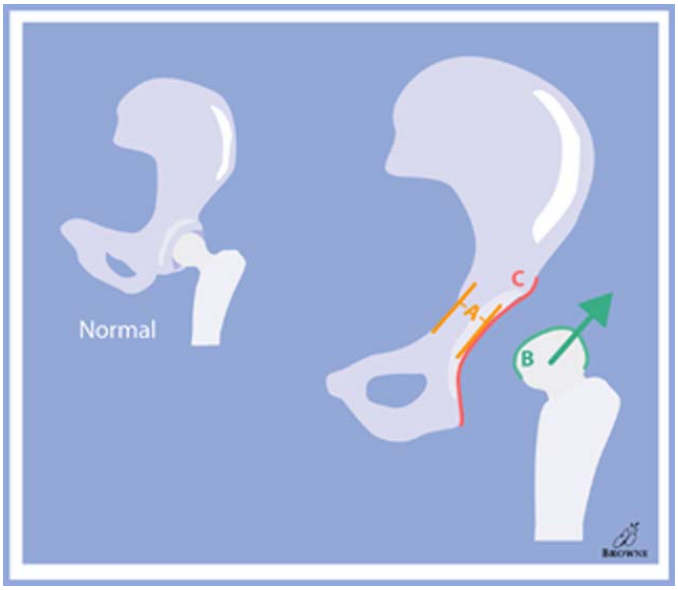
Nemours | Alfred I. duPont Hospital for Children

Nemours Children's Clinic

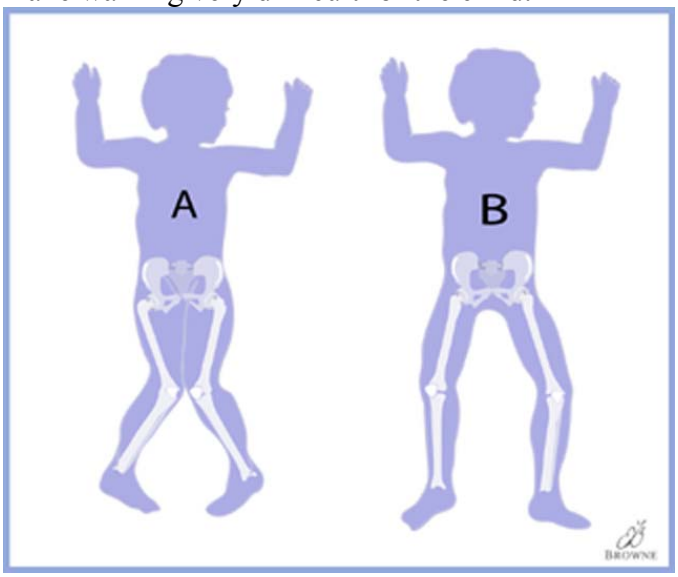
FEMORAL DEROTATIONAL OSTEOTOMY

Why does my child need this surgery?

There are two basic indications for this surgery: The first involves the damaging effect of spasticity on the hip joint. This spasticity involving the hip muscles, mostly in the groin, can cause the hips to gradually come out of their sockets. This can be a painless process, but can result is a severe deformity of the entire hip joint and eventually cause a great deal of pain.



The second common indication for this procedure is for the child who walks with his/her feet severely turned in. Children normally go through a stage of walking with the feet turned in from the hip (femoral Anteversion). However, with normal muscle pull this corrects in the overwhelming majority of children.
Because children with cerebral palsy have abnormal muscle pull, this may not correct. This certainly can make walking very difficult for the child.



There are no braces that can prevent or correct these problems and there is no scientific evidence that sitting in the W position causes or worsens the situation.

What does the surgery involve?

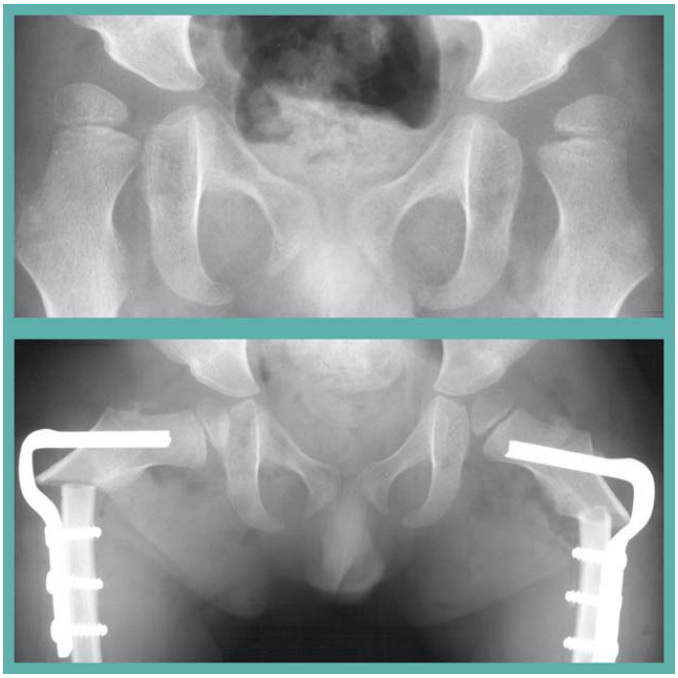
The surgery involves cutting the thighbone (femur) and re-positioning the ball of the femur in the hip socket. Sometimes the socket itself must also be worked on in order to have it contain the ball better.

This procedure is done for the first indication explained above, when the hips are coming out of their sockets dues to spasticity. The re-positioning results in the legs being turned out rather than in.

The children, who are having this surgery so that their legs are not turned in when they walk, will have the goal of their legs pointing straight ahead after surgery.

In each of these surgeries, the cut femur is held together in its new position by a metal plate. The plate(s) is completely inside the body. These plates are very strong and because they are used, a cast is rarely necessary.

Typically there are also muscles lengthened in the groin when these procedures are done.



What are the incisions like?

The hip incisions are several inches down along the outside of the hip. If a procedure is also done on the socket of the hip, there will be a smaller incision higher up. The groin muscle incisions are small (one to two inches) in the groin crease.

The plates tend to give the shape of the hips more emphasis even though the plates are not visible. They do make the hips appear wider.

What happens immediately after surgery?

Unless the child has required casts for another procedure, he/she will not be in a cast. In rare instances, if a child's bone is very soft or re-positioning appears unstable, a hip spica cast may be applied. However, in the vast majority of cases there will be soft padded bandages over the incisions. The surgeon may also have a soft pillow-like device in place between the legs to keep them spread apart.

This is not a particularly risky surgery, but it does tend to involve a lengthy recovery. Part of the difficulty is due to the osteotomy of the large femur bone and part to the necessity of having to move the child's hips for activities of daily living. such as toileting and dressing.

The length of stay for this surgery is typically 4-5 days, again dependent upon what other procedures may have been done at the same time.

Will my child be able to walk?

If your child was an independent walker before the surgery, he will most likely need a walker for a while. However, the goal will be to have him up on his feet before discharge. Children who used walking aids prior to the surgery will require more support in the beginning.
Each child's need for extra support will be very individual as will the length of time for which the support will be necessary.

Will my child be able to ride in the car?

There should be no difficulty with positioning the child for car rides, unless the child has a spica cast, which again, is rarely needed.

Will my child have pain?

Yes. However, the pain will be controlled with pain relievers and muscle relaxants. Sometimes, an epidural is placed in the operating room, which delivers additional local pain relief for the first few days after surgery. This is removed before the child is discharged.

If, after your child returns home, you feel that he/she is having inappropriate pain or side effects from the medications, please call the office.

Will my child need physical therapy?

Yes, the therapists will work with your child at the bedside at first, and then with assisted walking, if the child was previously a walker. There will also be a prescription for physical therapy after discharge.

The social worker will help with arranging for therapy. However, individual insurance coverage will often dictate what therapy is possible. It is very helpful for families to inquire about their coverage prior to surgery in order to facilitate the process of obtaining what is needed for their child.

When will my child have to return to see the doctor?

The first post-operative visit is typically in four weeks **AND WILL REQUIRE AN X-RAY AT THAT TIME**.

When will my child return to school?

This can be quite variable. The child's comfort level is the determining factor. This surgery tends to require at least four weeks before a child is comfortable to ride the bus and be at school for the day. A good deal of the variability is dependent upon the child's comfort in the school setting, the length of the bus ride and the ability of the school to accommodate the child's needs. These are the limiting factors in the return to school. From a surgical standpoint, the child may return to school when comfortable.

How long will it be until my child has completely recovered?

This is quite variable and depends on the child in addition to other procedures that may have been done.

The osteotomy is typically healed in 3-6 months, but the changes in walking may continue for up to a year.

Will the plate(s) need to be removed?

In some children who are very slim, the plate's prominence can become bothersome. In addition, in children who are very young when they have this surgery, the surgeon may want to remove the plate in anticipation of growth. The removal of the plate is a very minor procedure compared to putting it in. It is typically an outpatient surgery and done through the same incision.

Will this surgery ever need to be repeated?

If the surgery was done for a child with an in-toeing gait, and the child was fairly young, it is possible that the deformity may recur. It is for this reason that this surgery is usually postponed until the child is nearly grown. However, if the child is having a great deal of difficulty with walking, due to the turning in, it may be advisable to address the problem even though it may recur. Rarely would this surgery need to be repeated for a dislocating hip.

What are the possible complications associated with this surgery?

The possible complications associated with this surgery include infection and fractures. These complications are not common and respond well to treatment, although fractures can extend recovery time.