

DEGA OSTEOTOMY

(PELVIC OSTEOTOMY)

Why does my child need this surgery?

This surgery is almost exclusively done in conjunction with a femoral derotational osteotomy. When children have spasticity, the effect on the hip joint can result in severe deformity and pain. The hip joint is composed of the femur (thigh bone) **and** the pelvis. The top of the femur (femoral head) rotates within the acetabulum of the pelvis (the socket which the ball “sits” in). The spasticity and lack of weight bearing in walking can result in the “ball” moving out from its position in the socket. The result of this action is eventual complete dislocation of the hip. When this condition of hip instability requires surgery, it can sometimes require only dealing with the tight muscles around the hip joint. Usually, this is in very young children. When the condition cannot be treated successfully with only muscle surgery, the bones need to be repositioned in order to keep the joint aligned properly. The head of the femur (the ball) is redirected surgically into a good position in the socket. However, with some children, the socket itself has become deformed and is very shallow. Therefore, even if the ball is placed within it, it will not stay in, because the socket is not shaped in a good “cup.”

The Dega osteotomy addresses this deformity. Dega refers to the orthopedist who first described the technique and osteotomy refers to the fact that the bone of the socket is cut.

What does the surgery involve?

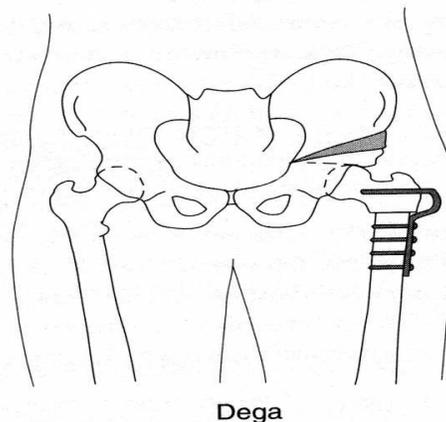
There are several procedures which surgeons have developed to address an insufficient acetabulum. Each procedure is designed to anticipate from

where in the socket the ball is most likely to “escape.”

The Dega osteotomy is a particular procedure that has been very successful in treating the hips of children with cerebral palsy.

It is done during the same operative time as any work on the femur and or muscles around the hip. A surgical cut is made in the pelvis, above the socket; part of the pelvis is bent down to form more of a cup. The space created in the pelvis is filled with a piece of bone graft and eventually fuses with the child’s bone.

Figure:



A cast is very rarely needed after this pelvic osteotomy.

What is the incision like?

The incision (incisions if both right and left hips are done) is a narrow incision along the front of the pelvis, about where one feels the “ hip bone.”

Depending on the size of the child, it's usually a thin line about 2 inches in length.

What happens immediately after surgery?

Typically the child is not in a cast and just has a bandage over the incision. A soft wedge (pillow type device) may be used to keep the legs apart, as this is the preferred position for the hip joint.

This is a bone procedure, and as stated previously, is usually done with an osteotomy to the femur. It is not a very risky surgery, but because it involves cutting the bone, the recovery can be slow. Having to move the legs in order to dress and toilet a child cause discomfort that is addressed with medication and therapy.

The length of stay for this procedure (which is most often one of several procedures done during the surgery) is typically 4-5 days.

Will my child be able to walk?

If your child was an independent walker prior to surgery, a walker will probably be needed for a while. Children who were not very functional walkers, will need more support. However, the goal will be the same for all children that is to be weight bearing, either walking or in a gait trainer or stander.

Will my child be able to ride in a car?

Very rarely is a hip cast necessary with this surgery. Therefore, there should be no problem riding in a car.

Will my child have pain?

Yes. The pain will be controlled with medication. At first intravenous pain medication and Valium for muscle spasms will be given. Sometimes an epidural is placed in the operating room during the surgery and this delivers additional local pain relief. This is removed before discharge. After a few days children usually are given oral medication.

If they have a g-tube, medication is administered through the g-tube.

If, after you return home, you feel the child is having inappropriate levels of pain or side effects from the medication, please call the office immediately.

Will my child need physical therapy?

Yes. Therapists will work with your child at the bedside at first and then advance with range of motion and work up to standing and ambulating.

When will my child need to return to see the surgeon?

The first post-operative visit is typically 4 weeks after surgery and will require an x-ray. When can my child return to school?

This is quite variable. The child's comfort level is the determining factor. This surgery tends to require about 4 weeks before a child is comfortable to ride the bus and be a school for a full day. A good deal of the variability is dependent upon the child's comfort in the school setting and the length of the bus ride. From a surgical standpoint, the child may return whenever he or she is comfortable.

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

Again, this is quite variable and depends on the child's response to surgery and to the number of surgical procedures that may have been done. The bone typically heals in 3-6 months.

Will this surgery ever have to be repeated?

No, it seldom needs to be redone.

What are the possible complications associated with this surgery?

Complications specific to this surgery are very rare. However, infection is always a possible complication of any surgery but does respond well to treatment.