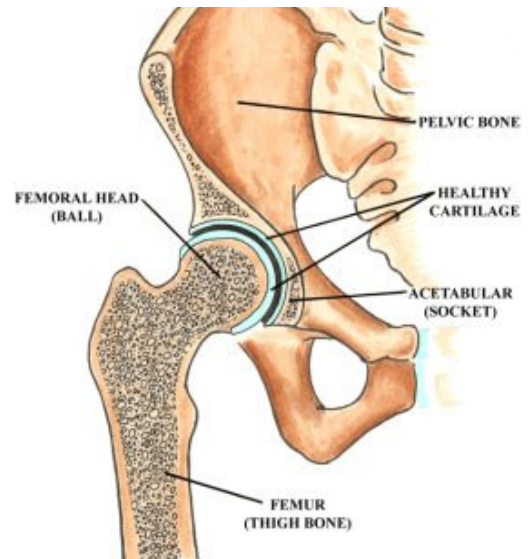


## OVERVIEW

Your child has been diagnosed with Developmental Dysplasia of the Hip (DDH). When examining your child, your physician has found a looseness in your baby's hip which can lead to problems with the way the hip develops. DDH is a treatable condition which occurs in otherwise normal, healthy babies. Early treatment is important to prevent problems later in life.

## CAUSES

The hip is a ball and socket joint, which is supported by strong ligaments and tendons. If there is "looseness" in the hip or increased external pressures (such as a tight intrauterine space or breech positioning), the socket will sometimes develop flat or shallow, instead of being a deep round socket. Hip "looseness" or a "shallow socket" will be felt or heard on examination as a "clunk" as the head of the femur (the ball) slides in and out of the socket. Other findings may include decreased motion, asymmetric skin folds, or shortness in the leg.



DDH occurs in approximately 1 in 1,000 babies and the cause is largely unknown. Factors that might contribute include lax ligaments around the hip (especially in girls), a tight intrauterine space (mostly for first born babies), breech positioning prior to birth, or a family history of hip problems. However, nothing could have been done to prevent this from happening.

## DIAGNOSIS

The diagnosis of DDH usually is made by physical examination. If one hip is out of place, that leg will appear shorter and will not move as well. If the hip is in place, but loose, this can be detected with careful movement of the hip in specific directions. This motion is best described as a "clunk" as the ball slides in and out of the socket.



This sensation of motion should not be confused with joint clicks or pops, which are normal and not a sign of DDH. As the child gets older, ultrasound or xray imaging can be helpful to monitor hip position and development. X-rays before 3 months of age are not helpful, because the pelvis and the head of the femur do not yet have enough calcium in them to be seen well on an X-ray.

## INITIAL TREATMENT

Early identification and treatment of DDH is important. Treatment is relatively easy and reliable for infants, but becomes difficult in later years and very complex after maturity. Depending upon the child's age and the degree of looseness in the hip the recommended treatments are described below:

**Newborn:** An unstable hip, recognized at birth is treated with close monitoring and gentle positioning with double diapering. Most of the time the looseness improves within a few weeks. If the hip is out of place or the looseness does not tighten up within a few weeks, a soft positioning device called a Pavlik harness is used for 1-2 months. This will usually tighten the ligaments and stimulate normal hip socket formation. These "loose" hips will usually tighten up in about 90% of patients.



**3-6 months:** If a loose hip does not tighten up or does not stay in the socket. It is usually best to position the hip correctly under anesthesia (closed reduction) and maintain the position with a body cast (spica) for 18 weeks. This cast is changed under anesthesia every 6 weeks.

**6 months-2 years:** If the hip can not be positioned and held with a cast, it may be necessary to open up the hip socket and create a good spot for the femoral head to sit. Once, the ball has been put into the socket, it is held in position with a body cast (spica) for 12-18 weeks. This cast is changed under anesthesia every 6 weeks.

**After 2 years:** Dysplasia may become severe, making major open surgical intervention necessary to release tight structures and realign the hip bones to stabilize the hip. This is usually followed by a body cast (spica) to keep the hip in place until the bones have healed in the improved position.



## FOLLOW UP TREATMENT

X-rays and other regular follow-up monitoring are needed after DDH treatment until the child's growth is complete. For hips that normalize their position and stability, continued observation by examination and xrays are important to make sure the shape of the hip socket matures normally. If the hip is shallow, then it has a tendency to have increased stress concentration in the hip which

leads to premature arthritis as a young adult. Most of the time, the shape of the hip will mature if given time. If the hip does not mature by school age, surgery can be done to reconfigure the hip and improve the shape. It is far easier and better to reconfigure the hip at age 4-5 than it is to treat premature arthritis as an adult. The doctor will follow the hip development every 6 - 12 months until the hips mature. Given time, most hips will normalize their stability and shape.

### **COMPLICATIONS**

Most hips will normalize their position and stability and encounter no further problems. However, some hips will have further problems which include slow or incomplete maturation or pressure related flattening of the femoral head. These problems usually resolve with time. Your orthopedist will keep you informed of these issues during the follow-up period. If dysplasia is treated successfully - and the earlier the better - children end up with normal hip joint function, have no further problems and go on to lead normal active lives.

### **ANSWERS TO COMMON QUESTIONS**

1. DDH is not painful for your baby.
2. If left untreated, a hip deformity causing pain and a limp may develop.
3. No one could have prevented DDH from occurring.
4. Your baby, when treated effectively, should have no future problems and will live a normal active life.

### **MORE INFORMATION**

Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at [www.aaos.org](http://www.aaos.org) and [www.emedicine.com](http://www.emedicine.com).

### **FEEDBACK**

If you have questions or comments, please contact the office or submit them to the web site at [www.pedortho.com](http://www.pedortho.com).