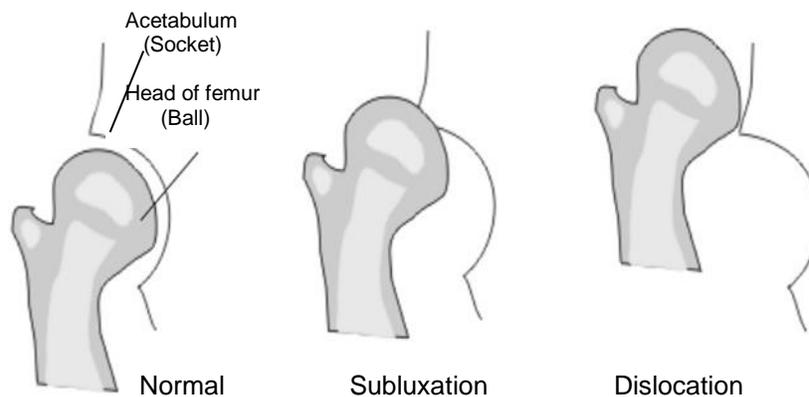


Developmental Dysplasia of the Hip (DDH)

Developmental Dysplasia of the Hip (de vel up MEN tul dis PLAY sha) (DDH) is a term that includes several types of hip disorders that occur at different ages. DDH may be present at birth or may develop over time.

A normal head of the femur (the long bone in the thigh) will be shaped like a smooth, round ball. The acetabulum (hip socket) has a smooth, cup-like shape. DDH is either an abnormality of the shape of the head of the femur or the shape of the acetabulum, or an abnormality with the area surrounding the femur and hip socket.

A normal hip will have the head of the femur sitting in correct position within the acetabulum.



Picture 1 Normal hip compared to subluxation and dislocation

Cause

We do not always know what causes DDH, but several risk factors may increase the chance of developing this disorder.

Risk factors

- More females than males have this condition.
- A first-born child is more likely to be born with DDH.
- Babies born in breech position (feet first) are more likely to have this condition.
- A family history of blood relatives with this condition could make a child more likely to develop it.

Signs and symptoms

Early signs include:

- hip is felt going in and out of the socket
- unequal leg lengths
- unequal thigh skin folds

Later signs include:

- gait (walking) abnormalities
- hard to move the leg away from the body (abduction)
- hip pain

Diagnosis

Several types of imaging tests may be used to help diagnose DDH.

- The most useful test for a child from birth to 4 months of age is an Ultrasound. This test helps the doctor to see where the head of the femur is, in relation to the hip socket.
- X-rays are preferred if the child is older than 4 to 6 months of age. The older the child is, the more easily their bones will show up.

The most common types of DDH are subluxation and dislocation (Picture 1).

- **Subluxation** is caused when the head of the femur is loose within the hip socket but will not come out of the acetabulum.
- **Dislocation** occurs when the head of the femur may or may not be located within the acetabulum but can easily be pushed out of the hip socket.

Treatment

The age of the child and the severity of the DDH will determine the type of treatment that will be needed to correct this disorder.

Non-surgical treatment:

- **Pavlik harness:** Used for an infant up to 4 to 6 months of age. This harness is worn all day and all night and keeps the hip in proper alignment within the acetabulum.
- **Abduction brace:** This device is like a Pavlik harness but in a fixed position. The child is unable to move the legs while in the brace. This brace is usually worn all day and all night for 1 to 3 months.

Surgical treatment:

- **Hip reduction (open vs. closed):** This procedure is done on an infant child while the child is under general anesthesia. It may require a small incision to the hip area to manually put the hip socket back into place. A Spica (body) cast is applied afterwards. It usually remains in place for up to 12 weeks.
- **Osteotomy:** This surgical procedure is done on the older child, teenager and adult. It involves cutting the hip or femur bone, repositioning the bone so it sits more correctly in the hip socket and securing the new bone position with surgical plates and/or screws.

What to do at home

If a surgical procedure was performed, watch for signs of infection, such as:

- redness
- drainage
- temperature higher than 101
- foul odor from incision area

Call your child's provider if they have increased pain that is not relieved with rest, ice, and elevation.

Activity

If your child is in a Pavlik harness, abduction brace or a Spica cast, do not allow them to use straddle toys and bouncy-type seats.

If your child had a surgical procedure, they will be asked to use a walker or crutches when up walking. Your medical provider will let you know how much weight is allowed on the operated leg. Usually the weight bearing restrictions last for 6 to 8 weeks.

Follow-up

Your child's follow-up appointment is usually 10 to 14 days after surgery. They will have regularly scheduled follow-up appointments with their medical provider after the diagnosis of DDH. Your child will continue to see their orthopedist regularly every 1 to 2 years until they have finished growing.