

CLUBFOOT

What is clubfoot and what causes it?

Clubfoot is a foot deformity that children are born with. With clubfoot, the foot is pointed down and to the inside. We don't know exactly what causes clubfoot but it appears to be due to abnormal muscles on the inside of the foot and lower leg which pull the foot in too tightly during fetal development. Clubfoot has a tendency to run in families. There is nothing that parents can do to prevent clubfoot, so there is no reason to feel guilty if you have a child with this disorder.

Treatment of clubfoot is generally very successful. Most children will have feet which look normal or close to normal and will be able to participate in sports. If an individual has clubfoot on one side only, the calf muscles and foot on that side will generally stay a little smaller than the opposite side.

How is clubfoot treated?

Clubfoot is treated using a series of plaster casts. This casting is usually started in the first six weeks of life; however, treatment can be successful even if it is started later. Each week or so, the foot is gently molded and a new cast is placed. This changes the position of the foot a small amount each week. The casts go all the way up the leg so that children can not slip out of the casts or rotate their legs within the casts. On average, infants with clubfoot require 5-6 casts. However, some children require well over 6 casts. Casting corrects the inward position of the foot. In most children, a small surgical procedure is required after casting to allow the foot to move up and down at the ankle. This procedure, called an Achilles tenotomy, involves cutting the tendon in the back of the heel through a very tiny incision. After the procedure, infants are casted for 3-4 weeks while the tendon heals in a lengthened position.

Following the casting and tenotomy, the feet are braced. There are several types of braces; most consist of two shoes connected by a metal bar. Children wear the brace nearly all the time for 3-4 months and then gradually switch to wearing it only while sleeping until they are 4 years old. Using the brace is the most important way to prevent the clubfoot deformity from coming back.

What are the risks of serial casting for clubfoot?

Casts can lead to poor circulation in the toes. Your doctor will ask you to keep an eye on your baby's toes several times a day to make sure they are not discolored or cold. Casts can also cause skin changes such as sores and redness. It is important to keep the casts clean and dry. If you notice that your child is very fussy and cannot be consoled, has skin changes at the edges of the cast, or seems to be slipping out of the casts, you should call your doctor right away and see about having the casts removed immediately.

Recurrences:

About half of children with clubfoot will have some type of recurrence. Often, these recurrences are mild and respond nicely to repeat casting. Some children will need a second tenotomy. Other children (about 20%) will end up needing a surgery to move one the tendons in the foot or to lengthen the Achilles tendon. A very small number of patients (less than 5%) require a major surgery involving the bones and joints because their clubfoot cannot be corrected with casting or because the deformity recurs.