



CLUBFOOT: FAQ's

(Congenital Talipes Equinovarus)

Common Questions About Clubfoot

What is clubfoot?

Club foot is a term used to describe a foot that is not positioned correctly at birth. The foot is turned down and in, like a golf club. The footprint is shaped like a kidney bean and appears to have a very high arch.

What causes clubfoot?

The majority of clubfoot cases have no family history and the exact cause is uncertain. There are some feet that are genetic (passed down through family), but other causes include abnormalities of nerves, vessels or muscles of the feet. Clubfoot can also be associated with syndromes such as arthrogryposis multiplex congenita and spina bifida.

How common is clubfoot?

Clubfoot occurs in about 1.2 per 1,000 children.

How is Clubfoot treated?

The recommendation for almost all feet is treatment with the Ponseti Method. This method consists of a series of casts, which are changed weekly. This slowly corrects the deformity. The casts are made of plaster, molded to the foot, and extend from the thigh to the toes. Most patients (at least 90%) will require a lengthening of the Achilles tendon at the time the last cast is placed. The final cast is worn for 3 weeks. Once the cast(s) are removed, the child transitions to the bracing phase of treatment

Bracing is critical to success of the treatment. The brace is worn 23 hours per day for the first three months, then 12-14 hours at night until the age of 4.

What is it like to have the Achilles tendon lengthened?

We have to first remove the cast in the clinic and make sure the foot is ready for the tendon release. We then apply a cream to the tendon that is used to help numb the skin. This cream stays on for 30-45 minutes. We will then inject a small amount of local numbing medication in the area of the tendon. We then gently cut the tendon using a small scalpel. Due to the small size of the incision, it does not need to be sutured. The release takes about three minutes. We then place a pressure dressing for about 10 minutes. We then apply the final cast. This cast stays on for three weeks.



Will a clubfoot ever be a "normal foot"?

The clubfoot may be smaller than a normal foot. It may not have the full movement of a normal foot, and the amount of stiffness varies. The calf on the side of the clubfoot will be smaller in comparison to a normal calf.

Despite these differences, most children will have near normal function, with the ability to run, jump, play sports, and be active and healthy!

What can be expected long-term from the foot/feet?

Most children with treated clubfoot are able to participate in athletics growing up and will not need special accommodations with shoes. About 20% of children will need some type of additional intervention on their foot as they get older. This would likely involve repeat casting for a short period of time, and possibly a surgical procedure on their foot as they get older.

Relapses and problems occur most frequently *when the brace is not used as instructed* (seen on the images below).



THE ORTHOPEDIC PARTNERS
AN RCH CLINIC
PARK CITY • HEBER CITY • SALT LAKE CITY

Serial Casting of Clubfoot

Serial Casting

In the Ponseti Method, your child will be placed in a series of casts. The casts will slowly bring the foot and ankle into a functional position.

- The foot or feet will be gently stretched, positioned and placed in the above-knee cast.
- The cast is changed weekly. The foot and ankle will be repositioned each week.
- At the appointment when the last cast is placed, a minor procedure will be performed to lengthen the Achilles tendon. This cast is on for longer than the other casts, allowing the tendon to heal, and the foot to be stretched into the optimal, corrected position.
- When the last cast is removed, the child will be transitioned into braces.
- The process usually takes from six to eight weeks.

If possible, bring your child to the clinic hungry. Applying the cast(s) during feeding keeps the child relaxed and allows for better positioning of the foot and ankle.



Serial Cast Care and When to Call Us:

- Keep the cast dry!
 - If the cast gets wet, it will begin to dissolve.
 - Only sponge bathe your child.
 - Changing the diaper frequently also helps to keep the cast dry. Sometimes splashes might occur at the top of the casts. This is not concerning unless there is a large amount of urine or stool that gets down inside of the cast. If this happens, please call us.
- The toes should look pink and healthy.
- If toes look purple, bluish, white, and/or swollen, elevate the cast above the child's heart. This should relieve the problem within 30 minutes. If the swelling does not go down, or the color remains white, blue or purplish, please call us.
- Toes should always stick out of the casts as much as they do when the casts are first applied. **If the toes seem to be slipping inside the casts, please let us know.**
- Casts are bulky and make dressing your child a challenge.
 - Choose clothes with snaps in the legs and without feet.
 - Casts are warm so avoid extra clothing. Excessive sweating can cause skin irritation.
 - Apply moleskin to rough edges on the cast to avoid rubbing on the skin.
- Never leave your child alone on an unprotected surface, such as a table. The extra weight of the cast(s) can cause your child to roll or turn.



Ready, Set, Brace! The Parent's Guide for Successful Bracing

What is a clubfoot brace?

- Casting and bracing are the two stages of clubfoot treatment.
- After your child's foot has been corrected with a cast, they will need to wear a brace to prevent a clubfoot relapse. A relapse means the foot is turning back to the clubfoot.
- The brace consists of a bar and shoes that work together to keep the stretch and flexibility the foot gained while in the cast.

Why is bracing important?

- The foot grows fast early in life. This means it is important to use the brace for the right amount of time each day.
- If the brace is not used, your child's clubfoot will relapse. **If you do not use the brace as instructed, your child's foot is 183 times more likely to relapse!**

- It is critical to make using the brace **a daily habit**. If your child sleeps without the brace even for one night, they may become accustomed to moving their legs freely at night. The next time they use the brace at night, they may be fussier and will have to learn how to sleep with the brace all over again.
- If there is a relapse, this can mean more casting with manipulation. Bracing will need to start again after the relapse has been corrected.
- They might also then need a small surgery if the relapse happens after age four.

What is the bracing schedule?

- Your child will start wearing the brace the day the last cast is removed.
- The brace will be worn 23 hours a day for the first three months, then 12-14 hours at night until the age of four.
- The hour the child is out of the brace is a good time for a bath.
- If your child is already crawling or walking, talk to your doctor about how long they should wear the brace.

Putting On the Brace



STEP 1: Put thin cotton socks on your child. The socks should go up higher on your child's leg than the top buckle on the shoe.



STEP 2: Open the shoe so all of the leather fasteners are clear to put the foot in. The buckles should be placed on the inside of the foot.



STEP 3: Bend the knee, holding the lower leg and gently slide the foot into place until the heel is snug against the back and bottom of the shoe.



STEP 4: Pull the tongue horizontally against the ankle and hold in place with your thumb. Be sure the tongue is smooth against the sock. Make sure there are no wrinkles.



STEP 5: Buckle the middle strap snugly over the horizontal tongue. Buckle the ankle strap nice and snug.



STEP 6: Look through the heel opening at the back of the orthosis to ensure the heel is fully down and back. If the heel is not down, readjust the tongue and middle strap.



STEP 7: Once the upper straps are tight and the heel is snugly in place, buckle the toe strap and re-tighten the other straps if needed.



STEP 8: Clip shoes into the bar. The "Ponseti" logo on the bar should be facing up.



Healthy Skin in the Brace

- Always have your child wear **soft, thin** cotton socks in the shoes and change them daily.
- Protect sore areas while they heal. Your clubfoot team will provide protective supplies if needed.
- Check skin at least twice a day.
- Keep skin moisturized. If the skin is very dry it is more likely to break down. Heavier creams such as Cetaphil or Aquaphor work best.
- If a sore does not heal quickly, call us!

What is Normal?

- Redness that goes away in about 20 minutes
- Swelling for the first few days after a cast is removed
- Smaller ankle and foot where the straps of the shoes sit

What is Not Normal?

- Blisters and sores
- When any shoes are not fitting correctly, they will end up with redness or blisters. Some reasons this may happen are:
 - The straps are too loose.
 - The shoes are not placed correctly.
 - Your child has outgrown the shoes.
 - The straps may be too tight.
 - The fabric of the socks or shoes are not smooth against the skin.
- If the redness does NOT go away within 20 minutes talk to your child's clubfoot team

References:

Ponseti International (n.d.). Retrieved from <http://www.ponseti.info/>

Bracing Tips from Other Parents:

- **Make everything a routine; it will get easier with practice!**
- **Your child will still crawl and walk when they are supposed to, even though they are using a brace.**
- **Play with your child in the brace!**
 - **A few exercises you can do is move the bar up and down gently.**
 - **Push and pull the brace to help your child learn how to move their knees in the brace.**
- **Remember DO NOT remove the brace to soothe your child! Your child will quickly learn that crying will lead to you removing the brace. If you think your child is in great pain, please call your child's doctor.**
- **You can pad the bar by wrapping pipe insulation around it. This will make it more comfortable when you hold, carry, or feed your child. It will also protect your child, you, and your furniture when your child moves.**
- **Pick clothes that make using the brace simple:**
 - **Onesies with snaps are the easiest for working around the brace.**
 - **Do not use onesies with footies when wearing the brace. The extra material from the footies may rub the skin and cause sores.**

Contact Information

Call Our Clinic: 435-655-6606

Email Us: [toppedortho@gmail.com](mailto:toppedsortho@gmail.com)

Or Visit Our Website at:
www.toportho.com

The Orthopedic Partners

Marcella Woiczik, M.D.

Park City -

900 Round Valley Drive, Suite 100

Park City, Utah 84060

Salt Lake City-

6430 S 3000 E, #200

Cottonwood Heights, Utah 84121



THE ORTHOPEDIC PARTNERS
AN RCM CLINIC

PARK CITY • HEBER CITY • SALT LAKE CITY