

Clubfoot Treatment Achilles Tenotomy

What Is Percutaneous Achilles Tenotomy for Clubfoot?

A percutaneous Achilles tenotomy (often abbreviated perc TAL) for clubfoot is a procedure that lengthens the Achilles tendon and helps to improve flexibility of the ankle.

The Achilles tendon attaches the two calf muscles in the lower leg to the heel (calcaneus) bone. In clubfoot, the calf muscles and Achilles tendon are very tight. This tightness limits the amount of flexibility in the ankle and pulls the heel up in the back into a non-functional position. More than 90% of children with clubfoot benefit from an Achilles tendon lengthening. The surgery improves the foot's position and flexibility and helps prevent the recurrence of clubfoot.

Percutaneous means the procedure is done through a tiny incision through the skin. This procedure can either be done under injected numbing medicine (local anesthesia) in the clinic or under heavier sedation/general anesthesia in the operating room. Often, younger children can have the procedure done under local anesthesia, but after they get older and stronger (typically 5-6 months of age and older) we recommend doing the procedure with sedation/anesthesia to make it safer for the child.

In some cases, if the foot position is more atypical, the child has very poor tolerance of casting in general, or there is an underlying condition associated with the clubfoot (syndromic clubfoot, like those in patients with spina bifida or arthrogyposis) the surgeon will recommend doing the procedure in the operating room even if the child is younger.

Procedure Day

If the procedure is done with anesthesia, you will check into either the surgery area (general anesthesia) of the hospital or the Pediatric Intensive Care Unit (deep sedation) in Saint Paul. You will need to have a History and Physical completed before the procedure by your pediatrician or a provider in the clubfoot clinic. You will meet with the anesthesia or sedation team who will give details about the anesthesia/sedation for your child. You may also give a dose of Tylenol before the procedure if you like. Once your child is asleep, your surgeon will begin the procedure. A cast is placed before your child is awakened from anesthesia/sedation to maintain the new length of the Achilles tendon. Your child will go home with you the same day of their procedure.

During the Procedure

The procedure starts with the surgeon evaluating the foot position and confirming that it is ready. This means the forefoot and midfoot positions are well corrected, and the foot has adequate abduction (turn out). If the procedure is to be done in the clinic, numbing cream is applied to the skin over the Achilles tendon. It is left in place for 15 minutes to externally numb the skin. Following this, we request that the families leave the child with our team and wait in the waiting room during the procedure. We will have extra team members in the room to help soothe and calm your baby during the procedure and cast application. This may include giving a bottle, use of pacifiers, Sweet-Eaze dextrose water (to dip the pacifier in), soothing sound machines, singing, and cuddles. We do our best to make sure your child is calm and comforted during all parts of the procedure.

The numbing cream is washed from the skin, and the child is positioned for the procedure. The skin is sterilely

prepped and cleaned. A small needle is used to inject numbing medicine into the skin around the Achilles tendon, and we wait a few minutes to ensure that the back of the ankle is very numb. A scalpel is then used to make a very small incision through the skin over the Achilles tendon, about 1cm up from where it attaches to the heel bone. The tendon is then lengthened, releasing tension on the heel and allowing the ankle to flex up. No stitches are needed. The surgeon will hold pressure over the small incision until any bleeding stops, and then put a sterile Band-Aid over the incision.

After this, a final Ponseti cast is placed on the leg with the ankle flexed up. This cast remains in place for three weeks. You may see a small spot of blood through the cast during this time; please know that this does not mean that the incision is actively bleeding, but rather that a tiny amount of residual blood from the time of the procedure has seeped out and through the cast padding and plaster. It is nothing to be alarmed about as long as the child has pink warm toes and good perfusion

After the Procedure

The procedure can be painful for 1 to 2 days. We will weigh your child at the time of the procedure and recommend an appropriate dose of infant Tylenol for pain control. Most children take Tylenol for 12 to 36 hours after the procedure and then are back to their usual state of health during the three weeks of healing in the cast. During the three weeks after the procedure, the tendon heals in a new, longer position. At the 3-week appointment, we remove the cast in the clinic and your child transitions into the bar and shoe brace.

When to Call for Help

Contact Telehealth Nursing at [651-229-3890](tel:651-229-3890) if you notice:

- Cast problems (These can be very serious, especially if they affect the leg or foot's movement, sensation or circulation.)
- Your child acting irritable for no apparent reason
- Change in toe color or temperature
- Increased swelling of toes that isn't relieved by elevating the leg
- Skin irritation or rashes
- Toes that appear to have slipped back into the cast
- The cast seems too tight or too loose (moving up or down)
- Cracks in the cast
- The cast is damp or wet
- A foreign object inside the cast that you can't remove with your fingers
- Drainage spots on the cast that are more than 1 1/2 inches in diameter
- Foul smelling odor from the cast (Smell your child's toes occasionally to check for odor.)
- A fever of 101.3 F (38.5 C) or higher.

[Appointment: 651-290-8707](#) [Refer a Patient: 651-325-2200](#) [Pediatric Expert Consult](#) [More Ways to Contact Us](#)

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at [651-229-3890](#).