



Great Ormond Street Hospital for Children NHS Foundation Trust: Information for Families

Using the Ponseti technique to correct talipes (clubfoot)

This information sheet explains about the Ponseti technique, which we use at Great Ormond Street Hospital (GOSH) to correct talipes (clubfoot) in children. It explains how the technique works and what to expect when your child has this treatment.



Before treatment aged 6 weeks



The same patient aged 3 months

What is talipes?

Your child has been diagnosed with congenital talipes equinovarus (CTEV) or talipes for short. Congenital = present at birth, talipes = ankle and foot and equinovarus = pointed inward and downwards.

What is the Ponseti technique?

This is a technique used to straighten the foot using manipulation and stretching. It has been used successfully in the United States for over 55 years. Your physiotherapist moves and stretches the foot to relax the tissues around the foot and ankle before applying a plaster cast to keep the foot in place. The plaster cast stops the foot and ankle moving, giving the muscles and ligaments time to relax and the bones time to grow into the correct position. Once a child's foot and ankle is in the correct position, it will be held in place with special boots and bars worn until the age of five years.

Our results

From 2005 to 2016, 178 patients have been treated using the Ponseti technique at GOSH. Of these, 175 children have been treated successfully using the Ponseti technique. A total of 39 children have had at least one relapse, that is, the feet are starting to return to their original position. This required further treatment using the Ponseti technique with plaster casts, boots and bar. Of the 39 patients who had at least one relapse, 13 required further casting and a tibialis anterior

tendon transfer operation (TATT) to correct the recurrent CTEV and 12 required corrective surgery. For further information about our results, please visit www.gosh.nhs.uk/health-professionals/clinical-outcomes/orthopaedics-and-physiotherapy-clinical-outcomes.

What does it involve?

The first stage involves moving and stretching the foot before putting on a plaster cast from toes to hip. The plaster cast stays in place for five to seven days and is then removed. This will not affect your child's development in any way. You can handle your baby as normal, but the plaster cast cannot become wet, so you will need to wash him or her with a flannel rather than in a bath.

The plaster cast is removed in the Outpatient department. The physiotherapist will then move and stretch your child's foot again before applying a second plaster cast.

This is repeated as many times as needed, but treatment usually involves six plaster casts.

You can help us by helping your child to relax during treatment. You can bring a feed to give while the physiotherapist is moving and stretching the foot and applying the plaster cast.

Will my child need an operation?

Most, but not all, children need an operation called a tenotomy (tendon release). This is a short operation so is usually done in the Ponseti clinic in the Outpatient Department. Once your child's foot and ankle are in the correct position, the tendon is released while the area is numbed by local anaesthetic. After this, your child's foot will be put in the final position and held in place with the final plaster cast. This will be removed three weeks after the tendon release operation.

What happens next?

Once the final plaster cast has been removed, your child will be given some specially-made boots to wear. These are joined together by a bar, which holds the feet and ankles in the correct position. Your child will need to wear these boots all the time for three months, only removing them for an hour each day to have a bath, go swimming or play.

After three months, your child will only need to wear the boots and bar when sleeping, including daytime naps. We advise that he or she wear them



The same patient aged 9 months wearing her boots and bar

for 12 to 14 hours each day. Your child should continue to wear the boots and bar while sleeping until the age of five years. If they are not worn for the correct amount of time each day, the foot could go back into its original position. During the day your child should wear well-fitted shoes.

Looking after your child's plaster cast

- Check your child's toes are pink and warm every time you change his or her nappy
- Change your child's nappy frequently to avoid soiling the plaster. Disposable nappies with elasticated legs work well but make sure that the leg of the nappy is above the top of the plaster cast. This stops urine leaking onto the plaster
- Check the skin around the edge of the cast for any signs of rubbing, for instance redness or soreness
- Keep the plaster dry at all times

You should remove the cast if:

- You cannot see your child's toes
- Your child's toes are not pink and warm

You should soak the plaster cast in the bath, release the knobble and then unwrap the plaster. We will show you how to do this during your clinic appointment. Alternatively, you could contact your family doctor (GP) or local Accident and Emergency

(A+E) department. *Please contact the physiotherapy department at Great Ormond Street as soon as possible if the plasters have been removed.*

You must contact your physiotherapist if:

- The plaster becomes loose, cracked or crumbles
- Your child's toes have moved position within the plaster cast. This may indicate the plaster has slipped slightly and the plaster cast is no longer in the correct position.
- Your child is crying more than usual and appears to be in pain, as this could mean that the plaster cast is rubbing in an area that is not visible

Further information

- **Steps** – a UK based charity for children with lower limb problems – has information about the Ponseti method as well as other methods of treating talipes and also a discussion forum for parents.
www.steps-charity.org.uk/wp-content/uploads/2016/11/Talipes_Clubfoot.pdf

Please note that the Ponseti technique is a long-term treatment for talipes. It will seem difficult to follow at times, but not following instructions could mean that the technique will fail and your child might need further plaster casts and/or operations. However, as with all treatments, there is a chance that it will not work as well as expected.

**If you have any questions,
please contact the Ponseti team
based in the Physiotherapy
Department on 020 7405 9200
ext 5144 or bleep 3321**