

## Where can I go for advice and support?

Always contact the health professional treating your baby if you are having any problems.



It is during the early days of the 'boots and bar' stage of the treatment that you may feel you need most support. Talking to other parents in the same situation can be beneficial. This can be done face to face in some of the bigger clinics, through the **steps** Contact Register or in Chat Rooms on the Internet. The **steps** discussion forum is a good place to start.

The important thing to remember is **NOT TO GIVE UP**.

## Your Notes

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**Contact details** **steps** charity worldwide  
Warrington Lane, Lymm, Cheshire WA13 0SA  
Helpline 0871 717 0044 Website [www.steps-charity.org.uk](http://www.steps-charity.org.uk) Email [info@steps-charity.org.uk](mailto:info@steps-charity.org.uk)  
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# steps

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Clubfoot – The Ponseti Method

## What is the Ponseti Method?



The method was developed in Iowa, USA over 40 years ago by Dr Ignacio Ponseti. It uses manipulation and casting, followed by boots with a bar.

## What will the treatment be like?

### When will the treatment start?

Usually the treatment starts within a few weeks of birth while the tissues of the baby's feet are still very flexible. Older babies have been successfully treated. The method is less suitable if your baby has already had extensive foot surgery at the back of the heel and round the side of the foot.

## What will happen at the first appointment?



The person treating your baby may be a doctor or other health professional. They will manipulate the affected foot/feet, firstly to flatten the bend in the sole of the foot and then to begin to realign the bones of the foot. This is done very gradually and gently so it should not hurt the baby. The baby may still complain during this process. They do not usually like being handled by strangers or having to stay still while the casts are applied. Try not to worry about this and stay calm as babies can pick up on your mood.



When the foot has been manipulated as far as it can be for this session a plaster cast is carefully applied while the foot is held in the new position. The health professional continues to mould the plaster as it dries to get the best position, then trims the cast. The plaster extends to the thigh and the toes will be visible.

## How can I help?

Stay calm and help your baby to relax by distracting your baby with a favourite toy or giving a feed.

## How long will the baby wear this plaster?

You will have to take the baby back after a week. The first plaster will be removed (sometimes you are asked to soak the plaster and wrap it in clingfilm before going back to the clinic to speed this process) and the process of manipulation and plastering will be carried out again. The casts should be removed at the clinic as 'considerable correction can be lost from the time the cast is removed until the new one is placed.' (Ponseti)

This time the foot will be corrected a little more. The previous cast will have maintained the correction so far and relaxed the tissues for the next manipulation.

## How many times does this process have to be repeated?



All babies respond differently. Four to eight casts are usual but more will be applied if necessary. This can depend on the severity of the condition and the age of the baby when treatment started.

## Will this method remove the need for operative treatment?

Some babies will not need any operative treatment, but most need a very minor operation, usually using local anaesthetic, either a numbing cream or an injection, to complete the correction by releasing the tight heel cord (Achilles tendon). This requires a small cut (approximately 3mm) in the crease of the heel.

Occasionally it is necessary to use a general anaesthetic for this procedure, particularly if the baby won't keep still enough.

After this the final cast is applied which is removed 3 weeks later.

## What happens after the plaster?

To prevent relapse after the final cast the child will need to wear some special shoes attached to a bar. This part of the treatment requires a lot of effort on the part of the carer but it is vital to persevere. It is a very important part of the treatment. Not persevering with the wearing of the boots with the bar nearly always results in the child requiring more treatment with plaster casts or repeat surgery.

There are a number of different types of braces. The two most commonly in use in the UK are:

- the Markell Brace, also called the Dennis-Brown splint, with a bar that can be fixed or expandable and leather boots attached to the bar on which they can be rotated to the appropriate angle
- the John Mitchell Brace, sometimes referred to as the Ponseti AFO or simply 'Mitchell's', which includes sandal-style shoes made from very soft suede leather with a moulded plastic sole. These shoes are very comfortable and have two openings to facilitate checking the position of the foot. The brace is very adjustable.

Other braces are the Steenbeck Foot Abduction Brace, used mainly in Africa, the Gottenburg Brace, used mainly in Sweden and the Lyon Brace used mainly in France.

## What will happen while my child is in the boots and bar?

This part of the treatment starts immediately after the final cast is removed. The angle chosen by the health professionals is important and the length of the bar will hold the heels at shoulder width.

The boots and bar are worn 23 hours a day for the first 3 months then at night time and nap times for the next 3 to 4 years.

Health professionals recommend that:

- You always use cotton socks
- You put the worst foot into the shoes first if your child does not struggle, but the best foot in if he/she does
- You hold the foot in the shoe and tighten
- Check the heel is down
- Fasten the shoes tightly
- Be sure all the toes are out straight.



## How will wearing the brace affect my child?

At first your child will probably complain due to the strangeness of the brace, but it should not cause pain and they will get used to it. It helps if you:

- Play with the child to distract him/her and teach your child to swing the legs simultaneously
- Make it part of your daily routine
- Pad the bar – pipe lagging works well.



In case of regular escapes try

- Tightening the strap/laces
- Removing the tongue of the shoes
- Lacing shoes from top to bottom with the bow by the toes.

## Will my child have sleeping problems?

This can happen, it may help to try using a sleeping bag which helps avoid getting tangled in the bedding.

## Still Having Problems? – Troubleshooting

- Are the feet fully corrected? – if not the position will be painful. If you are not sure go back to the doctor to see if further casting is needed.
- Is the bar still at shoulder width? – it may need adjusting.
- Has rubbing inside the boots caused sores? – ask for advice on treatment.
- Have the hours in the boots and bar been reduced too quickly? – a gradual reduction is better.

## 'Top Tips' from other parents

*‘Join the steps discussion forum! – there is no better source of support than talking to other parents’*

*‘Purchase in advance footless sleepsuits for night time and dungarees for day time which have poppers that go all the way from one foot, along the bum to the other foot – so easy to put on when in the boots and bar. I spent the first few days chopping feet off sleepsuits etc.’*

*‘Don’t feel guilty’*

*‘Talk about it to ‘family and friends, don’t make clubfoot a taboo subject’*

*‘Ask lots of questions from your healthcare provider as regards the treatment your baby will receive’*

*‘Take lots of photos! After a few weeks the baby will have normal looking feet and you will regret it if you don’t have pictures to show what an amazing change there is’*

## Will that complete the treatment?

A small number of children may need further surgery, involving a tendon transfer around the age of 4 – 7 years. This moves the tendons to a different position improving the function of the foot.

It is important to remember that even if your child does require further surgery the Ponseti method will have given them a head start.