Everything you need to know about using Semeda foot abduction braces





Dear Parents,

The current treatment of your child with the Ponseti method has clearly already worked wonders. If you are beginning treatment using the ALFA-Flex or BETA-Flex brace, then the foot or feet of your child have already been successfully corrected. To keep it like this, and so your child can walk like all the other children, he/she requires the foot abduction brace and your help.

For an optimal start with your brace, we have compiled the most important information for handling and problem solving.

We wish you and your child a speedy familiarization and continued success.

Harald Kujus Director

Semeda GmbH

Why use a brace at all - the foot looks good?

The foot abduction brace is only used after the clubfoot has been fully corrected using previous manipulation and plaster cast correction. Even after full correction, the clubfoot shows a tendency to regression (relapse) up to the age of 4 to 5 years. The foot abduction brace is currently the only successfully used method for preventing a relapse. By consistent adherence to the provided Ponseti therapy programme, a re-occurrence of clubfoot can be successfully prevented in 90 % of children. In order to recognise at an early stage and to treat a possible relapse, it is important that you attend further check-up appointments with your physician.

Therapy programme – for how long does my child need to wear the brace?

Once your child receives the brace, it must wear it **for 23 hours per day for the next 3 months**. After this time, the daily wearing period can be reduced to **14 hours per day**, as long as there are no different instructions from the physician. It is advisable to use it while asleep, and also during the afternoon nap. Overall, the brace therapy should be continued until the 4th or 5th year of age, depending on your physician's assessment.



Fitting the brace – how did that go again?

If you receive the brace from your physician or orthopaedic technician he/ she will set the angles and the length of the brace. Please do not change the settings in any way, they are essential for the therapy. Now it is your job to place it on your child, as presented in the pictures. When you receive the brace, allow your physician or orthopaedic technician to explain the handling precisely. Should any questions arise during the first few days despite this, please do not be afraid to ask again, as it is important that you and your child feel comfortable



Dress your child in socks or tights. **Never wear the shoe barefoot!** Open all shoe fasteners.



Insert the foot so that the heel is firmly at the back and on the sole (inspection window). This is very important for ensuring that the shoe sits correctly.



First, close the centre strap. It must be pulled tight, because it holds the heel in the correct position.



Pull on the tops and toes of the sock to smoothen out any creases. Then loosely close the remaining straps and repeat the steps with the second shoe.



To secure the brace to the shoes, place the click fastener into the notches in the sole and slide the brace towards the heel until it locks into the bracket.





When both shoes are secured, your child must be able to see the bear or dolphin the correct way round.

Fitting the brace will be a bit unusual for you the first few times. However, after a little while, you will have practice and will find out the position that is best for fitting the brace to your child. Then putting on the shoes and securing the brace will no longer take more than a few minutes.

Is there anything else important to mention?

Time to become accustomed: The brace is unfamiliar for your child at the start of the treatment. The skin is still sensitive from the time in the plaster cast and the mobility of the legs is limited. This often leads to the children feeling uncomfortable in the first few days, to them crying more than usual and not sleeping well. Do not be disturbed by this. Usually, children become accustomed to the brace within the first two to three days. It is important that you persevere in any event (unless you observe severe reddening - see below: What problems can occur?). If the brace is worn regularly, it becomes normal for the child.

However, should your child not have become accustomed to the brace after the first

2 - 3 days, i.e. he/she cries frequently, wakes very often and is permanently irritable, you should contact your physician for a checkup. This phenomenon occurs less frequently when using the BETA-Flex compared to the ALFA-Flex due to increased freedom of movement.

Development: The brace does not usually impair the age-appropriate development of your child. You will see, for example, that your child can crawl or even stand up with the brace, when he/she reaches that age.

Adjusting the brace: Usually, at the beginning, the foot abduction brace is adjusted to an angle of 70° abduction for a clubfoot and to 40° for a normal foot. The dorsal extension, i.e. the flexion of the foot towards the shinbone, is set to 5 - 10°. This setting might seem extreme to people without experience with the Ponseti method, however, it is normal and essential for this treatment. If you look at the last plaster cast of your child, you will notice a similar position. The length of the brace should be adjusted to your child's shoulder-width as a minimum. With the BETA-Flex brace, a soft spring is used in the initial stages. As your child develops and gets stronger, this can be swapped for a stronger spring by an orthopaedic technician.



What problems can occur?

Reddening and pressure marks: The skin of babies is not yet made for wearing shoes, which means that it is very delicate. Although the shoes are from soft material, sometimes pressure marks or blistering can occur. It is very important that you take care that the foot is firmly placed within the shoe, as even light slipping back and forth in the shoe can lead very quickly to the formation of pressure marks. A reddening that fades when the shoe has been taken off for a short period is normal and no reason to worry. Should, however, the reddening increase and get darker, or even a blister forms, consult your treating physician. He will decide how the further procedure will be. If there are no other possibilities, a plaster cast will be put on again, where the affected area of skin

is left uncovered, to enable it to heal.

Foot perspiration and humidity: Should your child have a tendency towards sweaty feet, this extremely longwearing time of 23 hours per day can lead to continuously damp shoes. If you are using shoes with a leather lining, in rare cases this can lead to the formation of mould on the inner leather which is vegetable tanned in order to prevent allergies. We therefore recommend:

- airing shoes twice daily for half an hour
- changing socks several times a day if heavy sweat build-up occurs
- or changing to a shoe model lined with antibacterial silver textiles

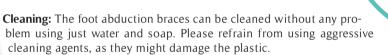
And finally, some important notices ...

Safety: Your technician should have secured the screws on your brace with a special glue. However, take care that screws are always tight, so that your child is never in danger of taking them into the mouth and swallowing them.

Shoes: Please note that the ALFA-Flex and COMFOOT shoes are not normal walking shoes. Due to the rigid, inelastic sole, developed specifically for therapeutic use, the normal rolling of the foot during walking is impossible. Furthermore, the sole (material and profile) does not offer sufficient grip on some floor surfaces. For these reasons, and because wearing the shoes alone without the brace does not have a therapeutic effect, your child should only wear the shoes in combination with the brace.



Brace padding: Depending on how lively your child is, it is possible that you or your child nudge yourself on the brace. Once your child begins to crawl or stand up with the brace, your furniture or your flooring could be damaged. This is prevented by padding the brace. This can be done using the special ALFA-Flex or BETA-Flex padding (available via your orthopaedic technician) or by using pipe insulation from the building supplies market.



Sleep: Some children wake up at night, as the brace has hooked itself into the duvet. It is best to put your child into a sleeping bag. For older children, it also helps to make putting on the brace part of the bedtime routine. In no time, your child will ask for the brace when he/she is tired.

Brace calendar: To get used to the rhythm of wearing it, it can be useful to note down in a calendar the number of hours your child has worn the brace. For this, you can copy the monthly calendar from the sleeve and then use it for further months. Or you download the PDF at www.semeda.de under the heading download/parents.

Your Semada Brace Calendar

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