

Delta-Cast®

Delta-Dry® Pantaloon

Improving life during hip spica cast treatment



Delta-Cast®

Daily routine with a hip spica cast

Maintaining your child's hygiene

Dear Parents,

Delta-Cast® appreciates that any medical treatment is a challenging time for any parent and their child. You probably have a lot of questions about how to care for your child during a hip spica cast treatment. Your health care professional will provide you with all the necessary information and will answer your questions. In support of this, we'd like to **provide you with some additional information** to help you look after your child during this time.

Your child is being treated using the pre-shaped, water-resistant undercast material **Delta-Dry® Pantaloon**.

Delta-Dry® Pantaloon can get fully wet and will be **dry within 90 minutes**. This means you can flush out or clean away any soiling and even bathe your child. This can help you to reduce the risk of skin complications whilst being able to maintain your child's **daily hygiene routine**.

It's our commitment **to help ease your way** through hip spica cast treatment. We hope you will find this guide useful and wish you and your child a speedy and successful treatment.

Your Delta-Cast® team

Hip spica cast treatment - some facts

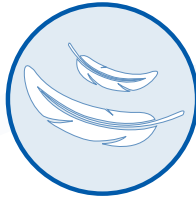
- There are two main reasons for treating children with hip spica casts:
 1. Developmental Dysplasia of the Hip (DDH)
 2. Femur Fractures
- Hip spica cast treatment success rates are up to 95%^{1, 2}

Did you know?

Nearly a fifth³ of standard hip spica treatments result in skin complications. Using water-resistant cast padding can reduce this to less than 2%.

Designed for babies

Benefits of Delta-Dry® Pantaloons



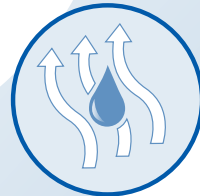
Care & Protection

Soft, flexible and cushioned for your child's skin



Water Resistant

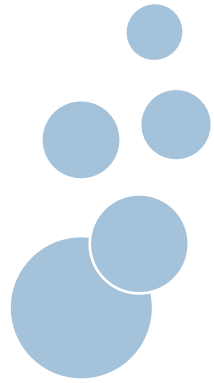
Enables bathing and flushing through



Quick Dry System

Moves moisture away from your child's skin





Bathing Fun

Hygiene made easy

Thanks to **Delta-Dry® Pantaloon**, maintaining your baby's hygiene can now be a little easier than it would have been with a traditional hip spica cast.

Little accidents no longer mean more cast changes than necessary. Flushing the cast through, or bathing, will help to keep your baby and the hip spica cast clean.

For best results, please follow these guidelines:

- To keep the skin as healthy as possible, **flush the cast through** with clear, lukewarm water **every two to five days**
- For bathing choose, for example, a **bath tub or a sink**
- Use **mild soap** and afterwards always rinse with **clear, lukewarm water**
- If the cast gets soiled by any urine or excrement, **wash the affected areas immediately**

Skin check

Make a **complete skin check** around all cast edges **part of your daily routine**.

You can gently clean along the cast edges with a water soaked cotton ball or a soft flannel.

Quick Dry System

Drying after bathing or flushing

After a splash in the bath tub, there are some things to remember to ensure the cast fully dries:

- **Let all water drain out** of the leg openings of the cast
- Change the position of your child every **10 minutes** during drying to avoid accumulation of water in any one place
- Any remaining **moisture will evaporate** due to body heat
- Allow enough time for the cast to fully dry. The cast should be **dry within 90 minutes**
- During drying, keep your child in a warm room, for comfort – but **do not cover the cast with clothes, blankets or towels.** This will stop the material from drying properly

Drying process

You can speed up the drying process by using a hair dryer on a cool setting. Blow in the direction of the cast, however only if your child is comfortable with this.



Nappy application

Two are better than one

There are several ways of applying nappies to your little one during hip spica cast treatment. Here is one option, for which you will need **two different sizes of nappy** (your regular size, and one larger).

1

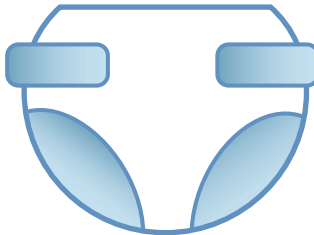
Removing sides

Remove the sides of the smaller nappy. Be careful to avoid damaging the absorbent material inside

2

Tucking under the front...

The smaller nappy can now be tucked under the torso part of the hip spica cast, while your child is lying on its back



5

Apply the larger nappy

Finally apply the larger nappy on top and close as normal

3

...and under the back

Turn your child around on its stomach and do the same with the other end of the nappy: tuck it underneath the cast and up your child's back

4

Straightening

Take care to **straighten the nappy under the cast** as much as possible. Try pulling the nappy up gently from inside the top of the cast



Attention when using skin care products

Please **avoid using powders, oil or oil-based lotions** as they tend to cake. If you want to use creams, consider applying these only on the skin that is not covered by the cast. Do not apply underneath the cast.

Mealtime

Breastfeeding your child in a hip spica cast

If you wish to continue with breastfeeding, it is not a problem. One of the following positions may work for you:



1. On the Lap

This popular position is still suitable for breastfeeding. When your child lies on its back, you can take a pillow to offer support for the leg. This might be more comfortable for your child, especially if he/she turns to a side-lying position so that one leg is upturned



2. Upright Position

Some children don't like to be raised for burping after feeding. If you use this position, you can put a pillow between your leg and your child to absorb the extra-weight of the cast



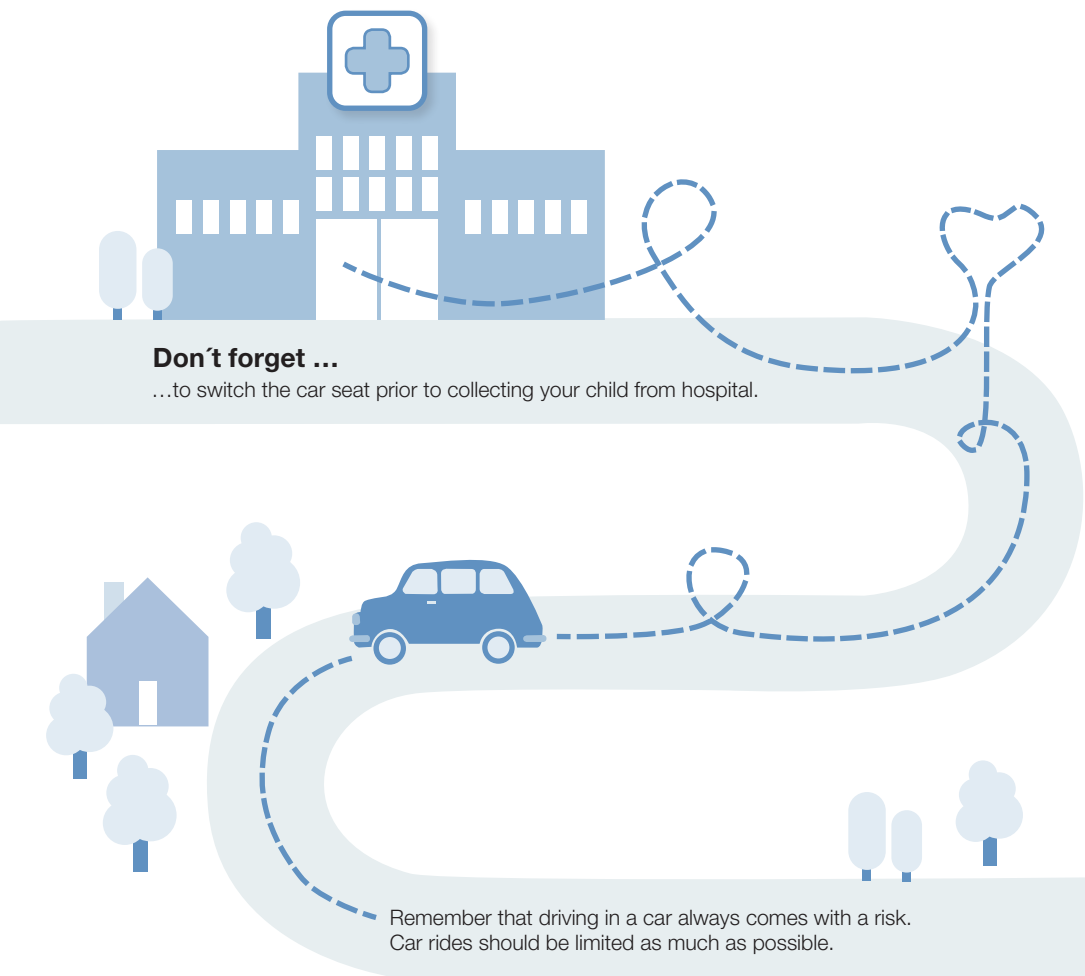
3. Lying together

Enjoy your time together and lay down for a while. Whether you choose a laid back or a sideways position, make yourself and your child comfortable by using pillows or a beanbag

In the car

Preparations for travel between home and hospital

A suitable child seat is essential. For the treatment duration it might be necessary to **adapt the seating to your child's needs**. The seat should have a flat base and low sides. Please also check that any car seat meets the age, weight and height of your child.





Night Time

Getting restful sleep

During waking hours, you should regularly change the position your child is in to avoid pressure marks on the skin. Ensure the upper body is always raised when lying down, otherwise any soiling might move up baby's body. While your baby sleeps, there is no need for changing its position. When you put your child to bed, **use pillows, blankets or foam rolls** for support and comfort and to maintain a safe sleeping position.



Cast Removal

Getting prepared

For some children the process of removing the cast may be stressful, due to the unfamiliar vibration and noise if a cast saw is used.

But don't worry – **the cushioning of the Delta-Dry® Pantaloon prevents the cast saw from touching any skin.**

Cast saws are designed to be safe and will not cause injuries when used correctly. So put your mind at rest and your child will not mind the cast saw either.

Helpful tip

In order to get their child used to a continual noise that is similar to a cast saw, some parents run a vacuum cleaner at home without actually vacuuming.

First Aid

What to do if your child starts to experience itching

Try to re-position your child. If that doesn't work, you can also try to help by washing your child or blowing with a fan or hair dryer on a cold setting in the direction of the cast – please only do this if your child is comfortable with this.

Do not attempt to scratch/rub your child's skin under the cast. Also, do not insert any items because this can pose a huge risk for skin complications.

Immediately contact your health care professional, when:

- Your child suffers skin irritation, redness, blisters or itching
- Anything gets stuck underneath the cast
- The cast breaks
- The cast constricts any limbs



References:

1. Gulati, V., Eseonu, K., Sayani, J., Ismail, N., Uzoigwe, C., Zaki Choudhury, M., Gulati, P., Aqil, A., Tibrewal, S. (2013) Developmental dysplasia of the hip in the newborn: A systematic review. World Journal of Orthopaedics. 18; 4(2): 32-41
2. Seidl, T., Lohmaier, J., Holker, T., Funk, J., Placzek, R., Trouillier, H. (2012) Reduction of unstable and dislocated hips applying the Tübingen hip flexion splint. Orthopade. 41(3):195-9
3. Wolff, C., Preston, J. (1995) The prevention of skin excoriation under children's Hip Spica casts using the Goretex Pantaloon. Journal of Paediatric Orthopaedics. 15:386-388