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Tübingen Hip Flexion Orthosis

Helpful Information for Treatment

Quality for life

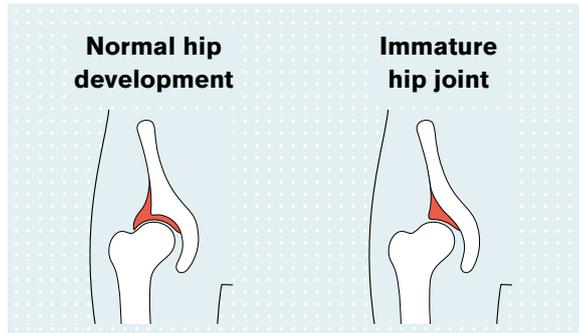
Information for Parents

What is hip dysplasia?

Dear Parents,

Your baby has been diagnosed with hip dysplasia. What does that mean?

Congenital hip dysplasia refers to the delayed development of the hip joint socket. Bone development of the hip joint socket is incomplete or the socket is too shallow, which means support for the joint head of the thigh bone is insufficient. Permanent damage may result if the joint cannot fully mature.



How can this happen?

Possible causes of hip dysplasia include insufficient space in the womb (i.e. with multiple births), a lack of amniotic fluid and breech presentation. While hip dysplasia is rarely hereditary, this possibility cannot be excluded.

How can hip dysplasia be treated?

In principle, the sooner treatment commences the better. This is because the optimum anatomical development of the hip joint is most readily influenced in the first few weeks of life. Regular examinations of the hip joints are therefore mandatory in Germany for the routine consultations U1 through U10.

Hip development disorders can be identified and evaluated by means of a hip sonography examination and classification according to Professor Graf. This allows the attending doctor to determine the optimum treatment method and duration.

If hip dysplasia is not identified and treated early on, health impairments such as hip dislocation (hip luxation) or premature joint deterioration (displasyia-coxarthrosis) can be expected.

How common is hip dysplasia?

Congenital hip dysplasia occurs worldwide. Between 4 and 5% of newborns in Germany are believed to be affected. This means that around 25,000 to 30,000 infants per year are born with hip dysplasia. Girls are affected 5 to 7 times as often as boys.

Note:

After birth, babies at first spontaneously assume the same hip flexion position they maintained before birth – which also corresponds to the position in the hip flexion orthosis.



Treatment Information

The Treatment

An ultrasound examination of the hips (also called sonography) is used to determine the state of hip development or maturity. Classification according to Professor Graf specifies three types, of which type II is most frequently seen in treatment. This is why type II is divided into three subgroups (type II a, II b, II c). Type II a corresponds to a slight deviation from normal development, type II c a major deviation. The Tübingen hip flexion orthosis is used for the treatment of hip dysplasia. This hip flexion orthosis has been used successfully for 25 years in the meantime. Doctors use this orthosis most frequently by far, with very high and proven effectiveness. More than 250,000 infants have been treated with the Tübingen hip flexion orthosis to date, with no documented cases of hip head necrosis. Full maturing of the hip is the therapy objective. The orthosis concept is based on an entirely natural position for the baby, which it assumes even in the mother's womb: the "human position".

Here the baby's hips are flexed at more than 90° while the legs are spread (abducted) by 30 to 45°. This position is ideal for the proper positioning of the hip heads in the joint socket.

The duration and course of treatment are determined by your doctor. Depending on the age and maturity level, the orthosis is worn for 12 to 16 weeks. Close cooperation between you and your doctor is very important here.

Treatment Process

Regular sonography examinations are used to monitor and ensure positive hip development. Hip maturing is confirmed by measuring the angles, formation of the joint socket and positioning of the joint head. The examinations allow the doctor to determine whether and when the orthosis needs to be readjusted. When the baby's hips have reached normal values, the process to discontinue use of the orthosis can start.

Note:

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Regular follow-up examinations are very important even after treatment is complete.

Conclusion of Treatment

Under the conditions described above, discontinuing the use of the orthosis can begin between weeks 6 and 8 on average. At this point, the orthosis is usually worn only at night for a period of 12 hours. The discontinuation phase is followed by the final examination. An X-ray will be taken in all cases (according to: Hip Dysplasia Workgroup [Tönnis]). A comparative examination should be conducted no later than one year before starting school and before growth ends.





"Nature as a model
for treating hip
development disorders."

(Bob Salter: human position)



Frequently asked questions

Is ultrasonic scanning harmful for my baby?

Ultrasonic scanning does not involve the use of radiation, is entirely painless and constitutes the standard examination method today.

Does my baby have to wear the orthosis all day and all night?

Normally, the hip flexion orthosis should be worn day and night – that is, for about 23 hours a day (except when changing and bathing).

Does it take long for my baby to get used to the orthosis?

Most babies get accustomed to the new situation quickly (usually within 1 or 2 days). However, some babies only get used to it after protesting in the first few days and nights. Should your baby fight the orthosis for a long time, it should of course be removed and checked by your doctor.

Is it bad for the back when my baby is constantly in this position?

Quite the contrary. Kicking against the orthosis strengthens the back musculature. In fact, babies develop a stronger back compared to their peers who have not worn a hip flexion orthosis.



How often should the doctor conduct follow-up examinations?

Babies grow very quickly during the first weeks and months of life. Therefore, sonography check-ups of the clinical findings in conjunction with the hip flexion orthosis are necessary and useful every 3 to 4 weeks. During such check-ups, the doctor will examine the hip joints along with the position and fit of the hip flexion orthosis, which may have to be adjusted as the baby grows. If you get the impression that there are any problems, you should contact your doctor immediately regardless of the appointed date (also see "Treatment Process" and "Conclusion of Treatment").

Why does the Tübingen hip flexion orthosis have the red and white closures?

Parents take off and put on the orthosis using the white closures and the hook-and-loop closure

with the caterpillar. The red closures must only be adjusted by the attending doctor or technician; otherwise, there is a risk that the effects of the orthosis may be changed.

How does the doctor adjust the red closures?

By setting or adjusting the red closures, the doctor establishes the leg positioning angle. Since an angle greater than 90° is recommended for the treatment of hip dysplasia, it is very important for this angle to be maintained throughout the course of treatment. For the front closures opened and closed by the parents, a certain number of beads is specified or a bead is marked at the closed position. This ensures that the same (desired) position is always achieved, even when the orthosis is opened and closed frequently.

Frequently asked questions

What do I do when I want to transport my baby in a car seat?

In principle, transporting your baby in a car seat without taking off the hip flexion orthosis is no problem with today's child seat designs. Ensure that the belt is below the spreader bar.



What happens if the orthosis gets too small during treatment?

During the regular check-ups, the doctor adjusts the orthosis with the help of reserve length of the beaded cords.

What is the so-called squat position?

This is the same position the baby assumes in the womb before birth. It is also the position which promotes the most rapid, natural development of the hip joints with the fewest complications.

Can my baby even stand this position?

This position is entirely natural for your baby since it already assumed it in the womb. It is crucial for the parents to internally accept the hip flexion orthosis. Just like the baby's feet kick the mother's belly before birth, they now kick against the leg shells. In both cases, the hip head adjusts and massages itself to the centre of the hip socket, ensuring rapid and proper joint formation.

Can my baby also sleep lying on its side?

Yes, with a pillow behind it your baby can easily lie diagonally on its side.

Can I hold my baby with the orthosis? Is there anything I need to be aware of?

You can hold your baby just like you normally would. There is nothing special to be aware of when cuddling or in any other situation. It is important for you as the parent to know that the Tübingen hip flexion orthosis is not unpleasant for your baby and is for the best.

Can the Tübingen hip flexion orthosis also be used in water?

Direct use in water is no problem thanks to the chosen plastic design. The terry cloth covers and hook-and-loop closures have to air dry. The entire orthosis needs to be dried.

How do I clean and care for the Tübingen hip flexion orthosis?

The hip flexion orthosis is washable. The terry cloth covers on the shoulder harness can be removed and washed.

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