



Developmental Dysplasia of the Hip (DDH)

A Comprehensive Guide to Bracing
your baby's Hip Dysplasia



ORTHOKIDS

Children's Bracing and Orthotic Specialists



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Welcome to Orthokids

You and your baby have been referred to Orthokids by your specialist for treatment of Developmental Dysplasia of the Hip (DDH).

At Orthokids you will always be seen by an experienced Paediatric Orthotist.

please contact us



(03) 9836 4480



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Developmental Dysplasia of the Hip (DDH)

Developmental Dysplasia of the Hip (DDH) is a condition in which your baby's hip joint is dislocated or prone to dislocation. If left untreated, your baby's hip will not develop normally.

The hip joint is a ball and socket joint. The ball at the top of the thigh (head of femur) may be unstable within the socket (acetabulum). If the ball is not held tightly in place, the socket may be flatter than

usual, making the joint less stable and the femoral head may be able to move in and out of the socket.

The ligaments of the hip joint which hold it together may also be stretched and loose.

In some cases due to the positioning of the hips, the muscles around the hip can become tight. In these cases the brace will act to also slowly stretch out these muscles.

Hip Joint Anatomy



Figure 1. The normal baby hip



Figure 2. Unstable hip joint



Figure 3. DDH - Dislocated hip joint

DDH tends to run in families, but it can be present in any individual. It is more common in:

- Girls
- First-born children
- Babies born in the breech position (especially with feet up near the shoulders).
- Family history of DDH (parents or siblings)
- Twins

If diagnosed early and treated successfully, children are able to develop a normal hip joint and should have no limitation in function.

If left untreated, DDH can lead to pain and osteoarthritis by early adulthood. The untreated hip may produce a difference in leg length and decreased agility.

When DDH is detected early, it can usually be corrected with the use of a harness or brace. If the hip is not diagnosed early, the condition may not be noticed until the child begins walking. At this time, treatment is more complicated, with less predictable results.

To achieve the best possible outcome, it is important to use your baby's brace or harness as instructed by your health professional.

Your referring doctor will take into account your baby's age and the severity of their condition when they decide which type of brace is required. Your Orthotist will educate you on how to use the brace, so that your baby is comfortable and the best possible outcome is achieved.

There are 3 different types of Hip Abduction brace most commonly used in Melbourne. On the following pages you will find comprehensive information on the use of each of these braces. More information, including a range of instructional videos, is available on our website.

Cost of treatment

We are conscious of the increasing costs associated with health care, and we aim to provide a premium treatment service for your baby at a reasonable cost.

The cost of your baby's treatment includes assessment, fitting and ongoing adjustment / review appointments for the life of each orthosis / brace.

The cost of your brace is not covered by Medicare. Your private health insurance may cover some or all of it, depending on the level of cover you have. Reimbursement rates vary greatly between health insurance companies and we recommend you check with your insurer directly. We will endeavour to provide you with adequate documentation to ensure you can claim the maximum amount.

Comfort and Function Guarantee

We guarantee our braces will be comfortable to wear, whilst performing the intended clinical function.

We pride ourselves on being able to design, manufacture and fit comfortable and clinically effective orthoses and braces.

Made in Melbourne

Orthokids Custom fitted products are designed, developed, manufactured and tested in Melbourne. This includes the Denis Browne Bar and Pavlik Harness.





Denis Browne Bar (DBB)

Your doctor has prescribed the Denis Browne Hip Abduction Brace (DBB) for treatment of your baby's Hip Dysplasia.

Follow these instructions carefully to achieve the best possible treatment outcome.

**Your Baby's
DBB should be
worn either:**

- 24 hours a day and is not to be removed
- At all times and is only to be removed for bathing
- Whilst your baby is sleeping, during the day or night

The brace is designed to maintain the legs in a 'frog leg' position.

This ensures that the 'ball' part of the hip joint is held into the 'cup' part, encouraging growth in the correct areas.

To put the brace on correctly, follow these steps:

1. Place socks on thighs

Always wear a sock under the thigh cuff, this prevents rubbing and makes the brace more comfortable for your baby. You will be provided with socks to get you started. See note below about alternative sock options.



2. Ensure brace is correct way up (smiley face towards you)



3. With your baby on their back, lift bottom up and place the bar underneath.

Your baby will fit in the middle of the brace and you will notice the bar follows the contour of the nappy and bottom. The plastic and foam thigh cuffs 'self-locate', so all you have to do is secure them firmly. You can be confident that the cuffs are in the correct position.

4. Secure thigh cuffs firmly to reduce rubbing

It is important to secure the cuffs around your baby's thighs firmly, this ensures that the brace moves with your baby when they move, and reduces any rubbing.



5. Fold socks over cuffs

Ensure you leave adequate length to fold the sock over the thigh cuff to improve comfort.

It is almost impossible to put this brace on incorrectly, so if you have followed these steps accurately, you can be confident that the brace is in the correct position.



Position of legs in Brace

Whilst wearing the DBB, your baby's legs should be in an abducted and flexed or "frog legs" position. Your baby can still move their legs up and down whilst wearing the brace, but it will prevent them moving together. If you find they are kicking down and their legs are in an 'A-frame' position (below left) more often than they are in a frog position, please contact us for a review. We can fix this problem easily by attaching an extra piece to the back of the brace



Alternative sock options

The socks we have provided at the initial fitting unfortunately don't last through more than a couple of washes. Here are a few ideas that have worked over the years. These options tend to be more comfortable for your baby, and you can choose a colour that you like.

'Baby Legs' - leggings for babies available online or at baby stores

Socks from Coles / Woolies / Kmart / Target - cut off toe end to create a tubular sock.

Approx size guideline

Baby 0-3 months = Child sock 5-8 year old

Baby 3-6 months = Child sock 8-12 year old.

6 months + = Teenager / adult sock

Little girls tights cut into length also work well.

Clothes to wear with the DBB

Most people find that upsizing a little solves most clothing issues.

Avoid tight clothing. Pants or bodysuits with bottom press studs are ideal - Bonds Wonder suits seem to work well because of the width of the crutch. In summer, nighties and dresses are ideal. If your child is allowed more than 2 hours out of the brace a day, you can put it on over the top of tight clothes such as tights or leggings.

Feeding your baby

It is important for you and your baby to be comfortable whilst feeding. The DBB will maintain the correct position of the hips in most positions for feeding.

- Sit your baby on your hips with one leg on either side of you.
- Some people suggest the 'football hold' for feeding.
- Feeding often comes down to trial and error.

If you are having trouble with feeding, please contact your Maternal Child and Health Nurse

Cleaning

If the brace cannot be removed from your baby, you will need to sponge bath your baby whilst the brace is on. You may undo the cuff on one leg at a time. This will allow you to wash and dry your baby's leg, check the skin and replace the sock. It is important that their legs remain in the "frog position" whilst doing this.

If the brace can be removed, then it can be wiped down with a damp cloth or baby wipe.

Sleeping

Some babies are more comfortable with a rolled up towel under their legs (below the knee). This supports their legs and prevents the legs from dangling above the mattress. This can be helpful whilst travelling in the car for extended periods as well.



Skin Care

The most common spot for rubbing is behind the knees - Nappy Goo www.nappygoo.com.au is the best product to treat this. Alternatively, use the nappy rash cream you have for your baby.

Skin problems are more common in babies prone to eczema - use cream as directed

We tend to see more skin rashes in spring and summer.



Frequently Asked Questions

How do I change a nappy?

Whilst on the change table, pull the bar gently towards you. This will give you more space to change the nappy. You can now slide a clean nappy in, remove the dirty nappy and secure the clean nappy. After a week or so, a lot of parents tell us that it is actually easier to change the nappy with the brace on as it holds your baby's legs out of the way. An alternative is to roll your baby onto their tummy and change the nappy using the same technique described above.



Why are my baby's thighs changing shape?

You can expect to see significant indentations on the thighs of your baby from the plastic cuffs. This often results in the appearance of a 'muffin top' above the top of the cuff. This is normal and will disappear once treatment is complete.



What can my baby do in the brace?

Depending on the age and level of development of your baby, tummy time, rolling, sitting etc are all encouraged. Obviously, all babies are different and may achieve these milestones within different time frames.

The important thing to remember is:

There are no restrictions on what your baby can do whilst in the brace.



Does the bar hurt my baby?

No. The bar is shaped to the contour of the nappy and legs. It is designed to rotate as your baby kicks their legs. Sometimes it will sit at the top of the nappy/ base of spine; other times it will sit towards the bottom of the nappy.

Why is my baby upset?

Your baby may be upset at first and it is not uncommon to have a couple of sleepless nights, but this should reduce within 3-4 days. We believe the grumpiness is related to the restriction of movement and the inability to rest in a 'comfortable' position. If your baby is still upset constantly after 3-4 days, please contact our office.

Will my baby fit into their car seat / capsule?

Your baby should still fit in the existing car seat or capsule. This will depend on the style of your car seat / capsule.

If the seat / capsule are very deep with high sides, sometimes a rolled up towel under your baby's bottom will make them a little more comfortable. Individual advice regarding this can only be given at your appointment (so we can see your seat / capsule). It is most important that your baby remains safe whilst travelling in your vehicle.

Review Appointments

Your baby will need to be reviewed regularly whilst wearing the brace.

Review times will vary with age and diagnosis. Your Orthotist will indicate when you should be reviewed. If possible, make a review appointment on the day of your visit to our rooms. Otherwise, please call our office on 98364480 to make follow up appointments.

The cost of the brace covers all reviews for that individual brace. We will attempt to extend the life of the brace to ensure you get maximum use out of the brace.

If the function of the brace is compromised, or your baby is uncomfortable, because they have grown significantly, a new brace will be fitted at additional cost.

The DB bar weighs approximately 125grams

Check out our instructional videos at orthokids.com.au

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Hip Dysplasia
Bracing Options for Hip Dysplasia @ Orthokids
Denis Browne Brace (DBB) Instructional videos

Denis Browne Brace (DBB) Instructional videos

- Orthokids DBB Hip Abduction Brace - How to put the brace on your baby
- Orthokids Denis Browne Hip Abductio... Tummy time and nailing
- Orthokids Denis Browne Hip Abductio... How to change a nappy - part 1
- Orthokids Denis Browne Hip Abductio... How to feed your baby
- Orthokids Denis Browne Hip Abductio... How to change a nappy - part 2
- Orthokids Denis Browne Hip Abductio... Place a towel under your baby's legs when resting
- Orthokids - Denis Browne Hip Abductio... Holding your baby



Rhino Hip Abduction Brace

Your doctor has prescribed the Rhino Hip Abduction Brace for treatment of your baby's Hip Dysplasia. Follow these instructions carefully to achieve the best possible treatment outcome.

The Rhino brace is designed to maintain the legs in abduction and flexion or a 'frog leg' position.

The Rhino hip abduction orthosis is designed to be used in infants from 3-24 months and allows some movement. Infants are able to learn to roll, sit, commando crawl and toddlers can actually walk in the brace. Normal symmetrical crawling on hands and knees is not possible with the brace.



Your Baby's Rhino Brace should be worn

To put the brace on correctly, follow these steps:

- 24 hours a day and is not to be removed
- At all times and is only to be removed for bathing
- Whilst your baby is sleeping, during the day or night.

1. The Rhino brace should always be worn over the top of clothes. Stretchy pants or leggings are best and thickness and materials should be appropriate to the season.
2. To apply the brace, use either of these two methods you find more comfortable:
 - The first option is to lay the baby on their back and lift up the legs to slide the brace underneath their bottom.
 - The second option is to place the brace on the change table with all the straps open and place the baby down into the brace.
 - Your baby should fit roughly in the middle of the brace.



3. Once the brace is in position, fasten each thigh into the brace using the velcro straps. The foam padding should wrap around the thigh and tuck tightly into the back of the brace. The straps should be then done up firmly around the thigh.



4. The waist strap should be then fastened with about three or four fingers under the strap whilst doing up the Velcro. This allows some room under the waist strap so that it is not too tight for sitting.



How will my baby cope?

Your baby may be upset at first and it is not uncommon to have a couple of sleepless nights, but this should reduce within 3-4 days. We believe the grumpiness is related to the restriction of movement and the inability to rest in a 'comfortable' position. If your baby is still upset constantly after 3-4 days, please contact our office.



What can my baby do in the brace?

Depending on the age and level of development of your baby, tummy time, rolling, sitting etc are all encouraged. Obviously, all babies are different and may achieve these milestones within different time frames.

The important thing to remember is: There are no restrictions on what your baby can do whilst in the brace.

How do I keep it clean?

The Rhino brace will get dirty over time, particularly if your child is mobile in the brace.

The plastic is easily cleaned by wiping down with a cloth or baby wipe. The foam can also be cleaned in the same fashion, but will slowly darken in colour over time.

Straps can be hand washed using a mild soap and warm water, and 'defluffing' is often necessary every couple of weeks.

Eventually the straps will require replacement. One set of replacement straps is included in the cost of your brace. Further sets can be purchased at an additional cost.

Skin problems:

The most common spot for rubbing is behind the knees - Nappy Goo www.nappygoo.com.au is the best product to treat this. Alternatively, use the nappy rash cream you have for your baby.

Skin problems are more common in babies prone to eczema - use cream as directed

We tend to see more skin rashes in spring and summer.



How will my baby fit in the car seat?

This is often a problem with infants over six months in abduction braces. If the car seat cannot be adapted safely for use then the brace must be removed for car trips. Some modified car seats may be available from children's hospitals.

Review Appointments

Your baby will need to be reviewed regularly whilst wearing the brace.

Review times will vary with age and diagnosis. Your Orthotist will indicate when you should be reviewed. If possible, make a review appointment on the day of your visit to our rooms. Otherwise, please call our office on 98364480 to make follow up appointments.

The cost of the brace covers all reviews for that individual brace. We will attempt to extend the life of the brace to ensure you get maximum use out of the brace.

If the function of the brace is compromised, or your baby is uncomfortable, because they have grown significantly, a new brace will be fitted at additional cost.

Pavlik Harness

The Pavlik Harness has been used to effectively treat hip dysplasia in children for many years. It is a soft and forgiving device but must be fitted correctly to work properly. The Harness needs adjustment for growth every 2-4 weeks and must be done by your Orthotist or doctor.

The Pavlik Harness is specially designed to gently position your baby's hips so they are aligned in the correct position to help normal growth and development of the hip joint.

Orthokids' Pavlik Harnesses are made in Melbourne from low allergenic natural materials.



Your Baby's Pavlik Harness should be worn

- 24 hours a day and is not to be removed
- At all times and is only to be removed for bathing
- Whilst your baby is sleeping, during the day or night

Fitting and Checking the Harness

Your Orthotist will explain these instructions in detail during your initial appointment.

When the chest strap of the harness is done up, you should be able to slide two to three fingers underneath the strap comfortably.

This allows for expansion of the chest. If the chest strap is too loose, the shoulder straps will slip off and the effectiveness of the brace will be compromised.



The 2 straps below the knee should be secured firmly to prevent the foot slipping out of the Harness.

After a week or so you will notice indentations forming on this part of the legs. These are a sign that you are securing the Harness correctly. Once the Harness is removed, these indentations will disappear.

The buckles on the front and back of the harness will be adjusted by your Orthotist at your regular reviews. Please do not adjust the position of the straps attached to these buckles.



Feeding your baby

It is important for you and your baby to be comfortable whilst feeding. The Harness will maintain the correct position of the hips in most positions for feeding.

- Sit your baby on your hips with one leg on either side of you.
- Some people suggest the 'football hold' for feeding
- Often comes down to trial and error

If you are having trouble with feeding, please contact your Maternal Child and Health Nurse



Clothes to wear with the Pavlik Harness

Avoid tight clothing; dresses or pants with bottom press studs are ideal. This often means 'upsizing' to allow for the extra bulk of the Harness.

During summer, little dresses / nighties work well.



Cleaning your Baby

If your baby is wearing the Harness 24 hours a day, you cannot bath them in the normal manner. You are able to undo the chest strap and wash under their arms and around the chest

You can undo one leg strap below the knee at a time. It is important to wash behind the knees as this is a spot that can get fairly 'crusty'.

Cleaning the Harness

Understandably this type of brace can get exceptionally dirty. The harness can be wiped down or spot washed with warm soapy water.

Other tips and hints....

Your baby may be upset at first and it is not uncommon to have a couple of sleepless nights, but this should reduce within 3-4 days. We believe the grumpiness is related to the restriction of movement and the inability to rest in a 'comfortable' position. If your baby is still upset constantly after 3-4 days, please contact our office.

If the harness can be removed for short periods, wear a singlet underneath to reduce soiling.

The Harness weighs approximately 100grams





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Children's Bracing and Orthotic Specialists

**please
contact
us**

Main Consulting Rooms:
18 Stirling Crescent
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Also Consulting at:
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