

DEVELOPMENTAL DYSPLASIA OF THE HIP

A guide for caring for your child following hip reduction surgery

SURGICAL MANAGEMENT & SPICA CASTING¹⁻⁴

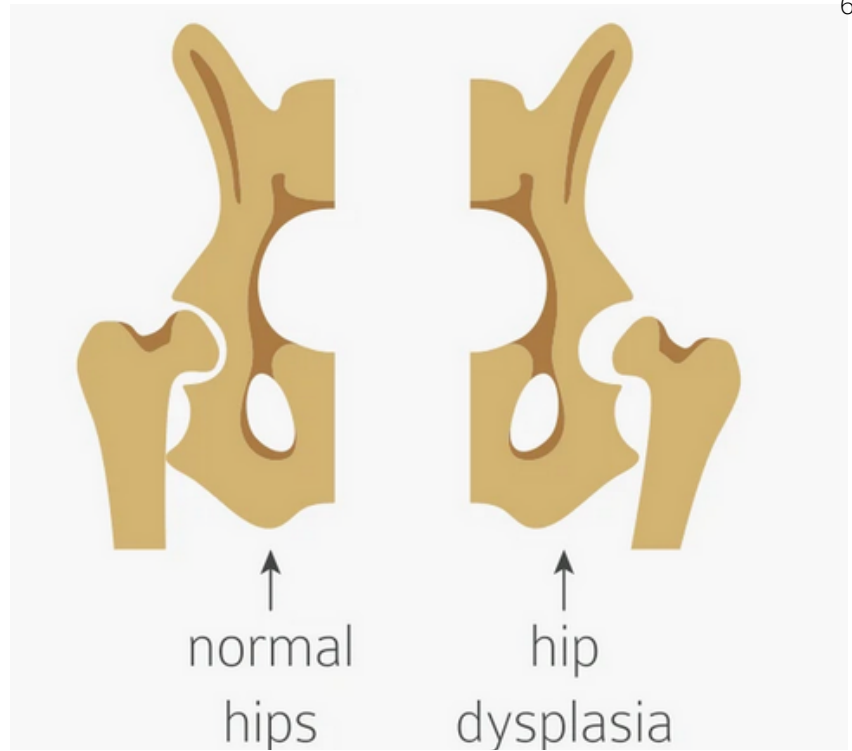
In children with DDH older than 6 months, it is necessary for a surgeon to reposition the hip. The most common type of surgery is a closed reduction, where the child is given anesthesia and the doctor uses an x-ray to reset the hip. In some cases, an open reduction is performed because it is necessary for the surgeon to make an incision in order to see and reposition the hip joint. Following surgery, children are placed in a special cast called a spica cast to limit movement and hold the hip in the proper position while it heals.



5 Spica casts can have long or short legs, with or without a cross-bar. They typically are worn for 3-6 months and are changed every 6-weeks.

WHY DOES MY CHILD NEED PHYSICAL THERAPY?¹

The goal of physical therapists following hip reduction surgery is to help parents with activities such as positioning, lifting, transportation, and diapering while their child is in the spica cast.



WHAT IS DEVELOPMENTAL DYSPLASIA OF THE HIP?^{1,2}

The hip joint is a ball and socket joint. Muscles and ligaments work to hold the "ball" (or head of the femur) within the "socket" (or acetabulum) on the pelvis. They also help maintain close contact between the ball and socket. This pressure is important for helping bones and joints to grow and develop properly.

Developmental Dysplasia of the Hip (DDH) occurs when the hip joint is less stable due to a shallower socket, flatter ball, increased rotation of the leg bone or looser ligaments. Another possible cause of DDH the ball is pushed out of the socket due to the baby being in the breech position at birth. As a result of these factors, the ball is unable to be contained within the socket and slips out, resulting in hip dislocation. DDH also decreases the contact between the ball and the socket which prevents normal bone growth and joint development.

POSITIONING⁷⁻⁹

It is important to change your child's position every 2-4 hours, including at night, in order to decrease pressure, prevent skin problems, and ensure comfort.

Back



- Pillows under head, neck, and legs
- Make sure that the heels are elevated off the ground

Stomach



- Pillows under stomach
- Towel roll under ankle to keep toes off the ground
- DO NOT have child sleep on their stomach if they cannot roll in their cast

Side-Lying



- Pillows under head and between legs
- Pillow behind back to prevent rolling

Sitting

- Pillows and bean-bag chairs can be used to prop your baby in a reclined, semi-reclined, or upright position
- Make sure that the heels are not in contact with the ground

LIFTING¹¹

Do's:

- Support both your child and the cast.
- Hold child close to your body when lifting them to protect your back.

Don't's

- Lift from or hold onto the cross-bar. This will damage the structure of the cast.
- Lift under both your child's arms without supporting their cast.

DIAPERING^{7,9,12}

While your child is in their spica cast, you will need to use the "double diapering" method, described to the right. This requires you to purchase two different diaper sizes for inside and outside the cast. Frequent diaper changes and skin checks are important to keep your baby's skin and cast dry in order to prevent skin breakdown, infection, and cast soiling.



Step 1:

Remove soiled diaper. Wipe and apply diaper cream. Ensure that the child's skin is completely clean and dry.



Step 2:

Trim velcro tabs off the smaller diaper. With the baby on their back tuck diaper into the opening of the spica cast, with the absorbent side facing the skin. Flip onto stomach, to tuck in the back. Make sure that the bottom is completely covered.



Step 3:

Put the larger diaper on over the outside of the cast to hold the smaller diaper in place.



REFERENCES

1. Hip Dysplasia. Physiopedia. https://www.physio-pedia.com/Hip_Dysplasia. Accessed September 25, 2020.
2. Hip Spica Cast. International Hip Dysplasia Institute. <https://hipdysplasia.org/developmental-dysplasia-of-the-hip/child-treatment-methods/hip-spica-cast/>. Accessed September 25, 2020.
3. Closed Reduction. International Hip Dysplasia Institute. <https://hipdysplasia.org/developmental-dysplasia-of-the-hip/child-treatment-methods/closed-reduction/>. Accessed September 25, 2020.
4. Open Reduction. International Hip Dysplasia Institute. <https://hipdysplasia.org/developmental-dysplasia-of-the-hip/child-treatment-methods/open-reduction/>. Accessed September 25, 2020.
5. Hip Dysplasia in Babies .Boston Children's Hospital. <http://www.childrenshospital.org/conditions-and-treatments/conditions/d/developmental-dysplasia-of-the-hip/hip-dysplasia-in-babies>. Accessed September 25, 2020.
6. Why A totseat Is Ideal For A Child Wearing A Spica Cast with Hip Dyspl. <https://totseat.com/blogs/the-totseat-blog/spica-cast-with-hip-dysplasia-how-a-totseat-can-help>. Accessed September 25, 2020.
7. Spica Casts. OrthoKids. <https://orthokids.org/Treatments-Surgery/Spica-Casts>. Accessed September 25, 2020.
8. Hip spica cast: A guide for parents. University of Iowa Stead Family Children's Hospital. <https://uichildrens.org/health-library/hip-spica-cast-guide-patients>. Accessed September 25, 2020.
9. Hip Spica Body Cast. BC Children's Hospital. http://www.bcchildrens.ca/Orthopaedics-Site/Documents/BCCH1014_HipSpicaBodyCast_2014.pdf. Accessed September 25, 2020.
10. Hip Spica Cast for Femur Fracture Management: A Guide for Parents. Montreal Children's Hospital. https://www.thechildren.com/sites/default/files/PDFs/Trauma/Current_Brocheurs/1604_0a_spica_eng.pdf. Accessed September 25, 2020.
11. Caring for your child in a hip spica fact sheet . Children's Health Queensland. <https://www.childrens.health.qld.gov.au/fact-sheet-caring-for-your-child-in-a-hip-spica/>. Accessed September 25, 2020.
12. Spica Cast Diapering. International Hip Dysplasia Institute. <https://hipdysplasia.org/developmental-dysplasia-of-the-hip/tips-for-parents/spica-cast-diapering/>. Accessed September 25, 2020.
13. How to Change a Diaper a Spica Cast . A Family of OHS. <http://afamilyofohs.com/2017/08/24/diapering-spica-cast/>. Accessed September 25, 2020.