

## Swaddling and Developmental Hip Dysplasia Position Statement

The American Academy of Pediatrics (AAP), Pediatric Orthopaedic Society of North America (POSNA), International Hip Dysplasia Institute (IHDI), American Academy of Orthopaedic Surgeons (AAOS), United States Bone and Joint Initiative (USBJI) and Shriners Hospitals for Children have come together to promote “hip-healthy swaddling” when parents decide to swaddle their infant. A swaddling technique that allows ample room for hip and knee movement is recommended. Avoidance of forced or sustained passive hip extension and adduction in the first few months of life is essential for proper hip development.

Hip dysplasia is one of the most common causes of osteoarthritis of the hip in adulthood, which can lead to pain, disability and total hip replacement. Swaddling used to promote improved sleep and to calm the infant is increasing in frequency in the United States (1). The newborn has a very sensitive hip joint that can be harmed by too much pressure or stress from abnormal hip positions or restricted motion. Infants who have been swaddled tightly with hips and legs bound together in extension are at increased risk for hip dysplasia and arthritis as an adult (1,2,3,4,5).

Since tight swaddling can stress the infant’s hips, leading to instability, dysplasia and even hip dislocation, it is important for parents to be aware of proper swaddling methods. Caution when swaddling has been recommended to allow the hips to move freely to avoid increasing the risk of developmental dysplasia, especially in the first few months of life (1,2,3,6). The infant hips should have freedom of flexion and abduction motion during swaddling. The knees should also be maintained in slight flexion. Some commercial products may hold the hips in too much extension. If there is a question about the safety of a device or other questions about swaddling, we encourage that the parent discuss this with child’s pediatrician or health care provider.

### Terms:

Hip dysplasia- abnormal formation and/or looseness of the hip joint.

Hip flexion- knees positioned towards the chest.

Hip extension- thighs straight in line with the body.

Hip adduction- thighs and knees together.

Hip abduction- thighs separated.

The following websites provide additional information and background from the groups endorsing this statement:

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International Hip Dysplasia Institute: <http://www.hipdysplasia.org>  
Video of proper swaddling (Dr. Chad T. Price, Medical Director, International Hip Dysplasia Institute): <http://hipdysplasia.org/developmental-dysplasia-of-the-hip/hip-healthy-swaddling/>  
American Academy of Pediatrics Healthy Children. Advice on the general benefits of and precautions concerning swaddling: <http://www.healthychildren.org/English/ages-stages/baby/diapers-clothing/Pages/Swaddling-Is-it-Safe.aspx>  
American Academy of Pediatrics. AAP News Article: <http://www.pwrnewmedia.com/2011/posna/newsletter/september/downloads/Swaddle.pdf>  
American Academy of Orthopaedic Surgeons: <http://newsroom.aaos.org/media-resources/Press-releases/swaddling.tekprint>

## References

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2. Mahan S, Kasser JR. Does swaddling influence developmental dysplasia of the hip? *Pediatrics* 2008;121:17-18.
3. Kutlu A, et al. Congenital dislocation of the hip and its relation to swaddling used in Turkey. *J Pediatr Orthop* 1992;12:598-602
4. Yamamuro T, Ishida K. Recent advances in the prevention, early diagnosis, and treatment of congenital dislocation of the hip in Japan. *Clin Orthop Rel Res* 1984;184:34-40.
5. Salter RB. Gibson Memorial Lecture: "Etiology, pathogenesis and possible prevention of congenital dislocation of the hip". *Canadian Medical Assoc. J* 1968;98:933-45.
6. Karp H. Safe swaddling and healthy hips: don't toss the baby out with the bathwater. *Pediatrics* 2008;121:1075-1076.

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