

## ***Position Statement***

# **Swaddling and Developmental Hip Dysplasia**

*This Position Statement was developed as an educational tool based on the opinion of the authors. It is not a product of a systematic review. Readers are encouraged to consider the information presented and reach their own conclusions.*

The 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.

***The POSNA, IHDI, AAOS and Shriners Hospitals for Children believe that “hip healthy” swaddling of infants should allow ample room for hip and knee movement in the first few months of life to allow for optimal development of the infant hip.***

A swaddling technique that allows ample room for hip and knee movement is recommended.<sup>1,2</sup> 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.<sup>3</sup> 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 tightly swaddled with hips and legs bound together in extension are at increased risk for hip dysplasia leading to instability.<sup>3-8</sup> The newborn hip that is forced into an extended position through prolonged swaddling has been confirmed in animal studies to lead to DDH and hip dislocation.<sup>9</sup>

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. Some commercial products may hold the hips in too much extension. It is recommended to allow the hips to move freely, especially in the first few months of life, to avoid increasing the risk of developmental dysplasia.<sup>3-5,8</sup> When swaddling, the infant hip should have freedom to flex and abduct. The knees should also be maintained in slight flexion. Swaddling should be snug around the infant’s chest, but there should be enough space so that the caregiver’s hand can fit between the blanket and the baby’s chest. If the swaddle becomes loose, it can result in head covering or strangulation. A swaddled infant should always be placed on his or her back.<sup>10</sup> When an infant exhibits signs of attempting to roll, swaddling should no longer be used as a swaddled infant in the prone position is at high risk for SIDS and suffocation.

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:

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>

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