Hip Problems (Developmental Dysplasia of the Hip, Legg-Calvé-Perthes Disease, and Slipped Capital Femoral Epiphysis [SCFE])

What are hip problems in children and how common are they?

- Developmental dysplasia of the hip: In children with this condition, the hip bone is not firmly seated in the hip socket, so the hip socket does not form properly. This condition can start before birth, especially in fetuses in breech position, or during the first year after birth. This condition accounts for 5% to 10% of all total hip replacements in the United States and is present, to some degree, in 1% to 2% of all term infants.
- Legg-Calvé-Perthes disease: More common in children aged 4 to 12 years and slightly more common in boys. Characterized by degeneration, called *avascular necrosis*, of the head of the thigh bone (the femoral head). The incidence varies, but it is not common.
- Slipped capital femoral epiphysis (SCFE): Occurs mostly in older children and adolescents, especially boys and those who have obesity. There have been 10.8 cases per 100,000 children reported.
- **Hip problems:** More commonly reported in children who were tightly swaddled, especially with their legs down and straight. Using sleep clothing in which infants can move their legs around is best. Swaddling the infant in a blanket for sleep in child care is neither necessary nor recommended. A swaddling blanket can come loose and be associated with sudden infant death syndrome.

What are some common characteristics of children who have hip problems or of hip problems as children present with them?

Infants might have only a few symptoms, but their hip joints may seem tighter when their diapers are changed. Children might develop a limp or pain in the thigh, knee, or hip. With SCFE, the foot might start to point out, instead of being straight.

Who might be on the treatment team?

- Primary care provider in the medical home
- Pediatric orthopedic surgeon
- Physical therapist



Baby in a Pavlik harness

What adaptations may be needed?

The Care Plan should outline the specific adaptations needed for the child with a hip problem.

- Harness. There are different types of harnesses, such as a Pavlik harness or a brace, that hold the bone in alignment with the hip joint. Infants typically wear the device for several months. Do not remove any part of a harness without permission.
 - Diapering. Diapering a child who has a device or a cast might be tricky, so have the parents/guardians show you any tips to make it go smoothly.
 - Movements. Babies can typically roll, crawl, or pull up while wearing the harness, but check the Care Plan to make sure the baby has no limitations.
 - Rubbing. Check the infant to make sure that the straps are not rubbing against his or her skin or causing skin breakdown.
 - Harnesses can usually be washed with soap and water if they are soiled, but do not remove them for cleaning.

Hip Problems (continued)

- Surgery. If other forms of treatment are unsuccessful, the child might need hip surgery. After the surgery, the child is usually placed in a large spica bandage, which will be on for 6 weeks initially. Pick up an infant in a spica bandage by the waist and support the bandage, which is heavy. Have parents/guardians show you diapering techniques.
- High chairs might need to be adapted to fit the cast or device.
- Babies in harnesses or casts should continue to sleep on their backs as normal.
- Transportation. Car safety seats and car passenger restraints can be difficult to maneuver, so discuss transportation with the parents/guardians and health care professionals. Spica bandages usually require special car safety seats.
- Usually, children with hip problems have no specific dietary changes and no medications other than ibuprofen or acetaminophen for occasional pain.

What should be considered an emergency?

- Emergency evacuation plans should take the size and bulkiness of the device or cast into account and any transportation adaptations.
- Call the family immediately if the device or cast breaks.

What types of training are advised?

- Diapering
- Cleaning a cast or device that gets soiled
- Care Plan specifics

What are some resources?

- American Academy of Pediatrics: www.healthychildren.org, www.aap.org
 - HealthyChildren.org, "Swaddling: is it safe?" (Web page), www.healthychildren.org/English/ ages-stages/baby/diapers-clothing/Pages/Swaddling-Is-it-Safe.aspx
 - Shaw BA, Segal LS; American Academy of Pediatrics Section on Orthopaedics. Evaluation and referral for developmental dysplasia of the hip in infants. *Pediatrics*. 2016;138(6):e20163107
- International Hip Dysplasia Institute: http://hipdysplasia.org

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American Academy of Pediatrics Web site — www.aap.org