

## Diagnosis and Nonsurgical Treatment of DDH in Infants Up to Six Months of Age: Recommendations from the AAOS

### Key Points for Practice

- Imaging can be obtained in infants younger than six months if they had breech presentation, or have a family history of DDH or a history of clinical instability.
- Ultrasonography can be performed in infants younger than six weeks if they have positive results on instability examination; anteroposterior radiography of the pelvis can replace ultrasonography in infants four months or older.
- Immediate or delayed bracing is warranted in infants with positive results on instability examination.

From the *AFP* Editors

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Developmental dysplasia of the hip (DDH) can cause functional impairment and affect quality of life. The exact incidence is unclear, with rates as high as one in 100 newborns who have a hip instability detected clinically and one to 28 in 1,000 infants with hip dislocation requiring treatment. Although the etiology is not known, causes appear to be both genetic and environmental. A higher risk of DDH is found in infants with risk factors such as breech position, family history, and limited hip abduction, among others. The American Academy of Orthopaedic Surgeons (AAOS) has provided guidance, based on limited and moderate evidence, on diagnosing and nonsurgical treatments for DDH in infants up to six months of age.

### Recommendations

#### BASED ON MODERATE EVIDENCE

Performing universal screening for DDH with ultrasonography in newborns is not recommended. When comparing universal vs. selective ultrasonography screening, there

appears to be no statistically significant difference between the two with regard to diagnosing DDH that presents late. Additionally, universal screening can lead to overtreatment. Imaging can be obtained in infants younger than six months if they had breech presentation, or have a family history of DDH or a history of clinical instability.

#### BASED ON LIMITED EVIDENCE

*Imaging.* Ultrasonography can be performed in infants younger than six weeks if they have positive results on instability examination; this imaging can help with making decisions regarding bracing. Anteroposterior radiography of the pelvis can replace ultrasonography in infants four months or older.

*Examination.* If an infant had normal results on previous hip examination, physicians should perform additional assessments until the infant is six months of age.

*Treatment.* If an infant has abnormalities found on ultrasonography, but has a clinically stable hip, observation without initiating bracing is supported. However, immediate or delayed (two to nine weeks) bracing is warranted in infants with positive results on instability examination. A von Rosen splint is the preferred brace over the Pavlik harness, Craig brace, and Frejka pillow, because there is some evidence to indicate that rigid bracing may result in increased resolution compared with soft braces. When prescribing bracing, serial physical examinations, and occasional imaging with ultrasonography or radiography, should be performed.

**Guideline source:** American Academy of Orthopaedic Surgeons

**Evidence rating system used?** Yes

**Literature search described?** Yes

**Guideline developed by participants without relevant financial ties to industry?** No

**Available at:** <http://www.aaos.org/Research/guidelines/DDHGuideline.asp>

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