

Randall Children's Hospital

Co-Management and Referral Guidelines

Developmental Dysplasia of the Hip (DDH) — Newborn and Infant

Randall Children's Orthopedics

Phone: 503-413-4488

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Introduction

- Developmental dysplasia of the hip (DDH) is a spectrum of disorders that present in different forms at different ages.
- Laxity of the hip capsule and failure to maintain the femoral head in the acetabulum are common features in all cases.
- The newborn presentation consists of instability of the hip such that the hip may be partially or fully displaced by the examiner (subluxation or dislocation), or the hip may rest in the dislocated position and be reducible by the examiner.
- Incidence:
 - Dislocation: 1.4/1000 births
 - Abnormal physical exam: 2.3/100 births
 - Abnormal ultrasound: 8/100 births
- Teratologic hip dislocation usually occurs with neuromuscular or other disorders and consists of hips that are dislocated before birth and not reducible, and is a separate entity from traditional DDH.

Evaluation and Management

Evaluation

- All newborns and infants should have serial hip exams performed as part of well-child visits.
- Soft tissue hip “clicks” are common and normal.
- When the baby is quiet and relaxed, evaluate for:
 1. Smooth, wide, symmetric abduction
 2. **Ortolani test:** Attempt to reduce the hip by lifting the greater trochanter while abducting the hip. The test is positive if you feel a palpable “clunk” as the femoral head reduces.
 3. **Barlow test:** Attempt to dislocate/subluxate the hip by adducting the hip while pushing posteriorly. The test is positive if a small jump is felt as the femoral head slips posteriorly over the edge of the acetabulum.
 4. With the patient on his or her back and the hips and knees flexed, the knees should be at the same height. If they are not, there is a positive **Galeazzi sign** and suggests apparent femoral shortening from an out-of-joint femur. This assessment may be required to evaluate for DDH outside the newborn period or unilateral teratologic hip dislocation.
 5. **Klisc test** for proximal femoral migration due to dislocation. Place one finger on tip of greater trochanter and another on the anterior superior iliac spine. The imaginary line between should project at or proximal to umbilicus.

See accompanying page for illustrations.

Treatment

- Orthopedic management of DDH in newborns generally involves treatment in a Pavlik harness.
- The patient may require operative treatment, such as closed or open reduction or even bony procedures, to realign the hips if the Pavlik treatment fails.

(continued)



When to refer

- Newborns who were breech or have a family history (parent or sibling) of DDH (especially girls) should be screened by ultrasound at 6–8 weeks by a facility expert at DDH screening.
 - If the patient has a normal physical exam and negative ultrasound, they do not need to be seen by a pediatric orthopedist, unless their exam changes.
 - Patients with abnormal findings on ultrasound should be referred to a pediatric orthopedist for evaluation.
- All other patients with abnormal exam findings should be referred to a pediatric orthopedist at the time of finding. Ultrasound is not needed prior to appointment.

Referral process

Randall Children's Orthopedics

To make a referral, refer via Epic or [fax the Randall Children's Hospital–Specialty Referral form](#) to **503-413-2419** (Oregon) or **360-487-1033** (Washington).

For urgent referrals, call Legacy One Call Consult & Transfer: 1-800-500-9111 to speak with the on-call pediatric orthopedic surgeon.

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To order an outpatient ultrasound with Legacy Imaging Services–Emanuel:

Phone: **503-413-7800**

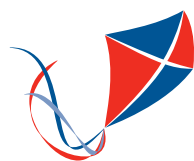
Fax: **503-413-8899**

Additional Resources

Pediatric Orthopaedic Society of North America and American Academy of Orthopaedic Surgeons information, Developmental Dislocation (Dysplasia) of the Hip (DDH):
<http://orthoinfo.aaos.org/topic.cfm?topic=A00347>

Updated February 2023

Find this and other co-management/referral guidelines online at: legacyhealth.org/randallguidelines



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