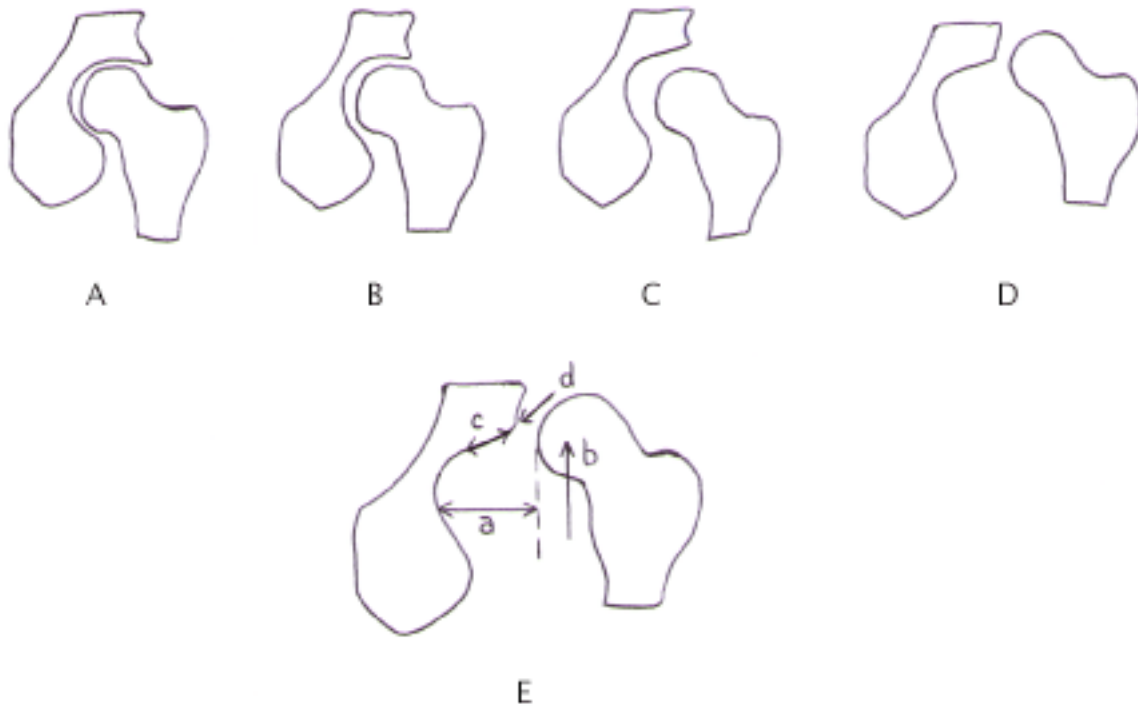


HIP DYSPLASIA

The term "dysplasia" is a combination of plasia, which stems from the Greek "plasis" and means "process of a development/formation" and the prefix dys, stemming from the Greek "dus", which expresses the absence of something. Thus, a dysplasia is a malformation in the development of a tissue or an organ. Hip dysplasia, CDH for short (for congenital dysplasia of the hip), is an umbrella term for congenital or acquired false positions or disorders of the ossification of the newborn's hip joint. [1]

The following illustrations show a normally to heavily damaged hip joint:



- Illustration A: normal hip joint
- Illustration B: hip joint affected by dysplasia [2]
- Illustration C: hip joint affected by subluxation [3]
- Illustration D: hip joint affected by subluxation [4]
- Illustration E: The greater the impairment the wider (a) and higher (b) the femoral head is situated out of the joint socket or acetabulum, the more askew is the roof of the acetabulum (c) and the more blunted is its rim (d). [6]

DIAGNOSIS

In most cases, this matter is about a single dysplasia, affecting considerably more girls than boys (80 %) and appears 90 % on the left side. The frequent appearance in one and the same family leaves us to conclude that hip dysplasia is inheritable. [7] [8]

Ever since the introduction of sonographic screening in infants, it has been possible to considerably improve a prognoses of hip dysplasia. Early detection means, first of all, that a clinical examination is undertaken for various reasons, for example because of family precedence (a hereditary risk exists); because of the geographical point of origin (in France, for instance, the Bretagne is the region where hip dysplasia most frequently occurs); because of some birth complications (breech delivery, malformation or false position of legs or feet); in cases of asymmetrical thigh skin folds; in cases of an askew pelvis or a protruding hip or a hip with restricted mobility. [9]

The ultrasound examination of the hip helps the diagnosis. During the first four and a half months, it is very reliable and evaluates the stability of the joints in real time. From four and a half months onwards, frontal X-ray pictures confirm a potentially serious or risky diagnosis. If, even if hip dysplasia is suspected, the X-ray turns out normal, then the diagnosis can also be determined by means of other radiation examinations like MRI (magnetic resonance imaging), scintigraphy or possibly CT (computer tomography).

THERAPY

The measures available for treatment are of orthopaedic as well as of surgical character. An orthopaedic treatment is mostly the first step; changing the newborn in a position as to keep the legs apart, or using orthopaedic aids as abduction pants that spread the baby's thighs (von Rosen splint, Pavlik harness, and so on). [10] If the diagnosis is made later, then the child is treated by means of an abduction plaster, i.e., putting the child in a cast on the affected side from foot to hip. The intention is to achieve the final ossification of the hip joint that occurs between the third and the sixth month in a position that is healthy for the hip joint. Thanks to all these aids and early detection measures, an operation (osteotomy of the pelvis and / or the femur) seldom becomes necessary.

If severe cases of CDH cannot be treated then the result is permanent damage of the hip joint. Effects include pain or walking dysfunctions like limping; during the final stage CDH can even lead to arthrosis of the hip joint. Less severe forms are not painful.

CARRYING IN THE SPREAD-SQUAT-POSITION AS A PRECAUTIONARY MEASURE

Hip dysplasia occurs very often in the Mediterranean and in Scandinavia. In Germany for instance, hip dysplasia is with 4 % the most frequent congenital maldevelopment of the skeleton. In other parts of the world, however, particularly in China or Africa, it is largely unknown. This is, among other reasons, due to the carrying culture that exists in those countries, where peoples carry their children close to their body, in a position such that their legs are kept bent and spread, almost all day.

Since the sitting position that the baby assumes when carried in this way corresponds exactly with the spreading and bending that is achieved by the recommended orthopaedic aids here. [11]

Written by: Annika Kral (Senior Manager Research)

INDEX OF DEFINITIONS AND SOURCES

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URL: <http://de.wikipedia.org/wiki/Hüftdysplasie> (accessed on 23rd April 2007)

[2] Also called hip joint dysplasia or dysplasia of the hip.

[3] A subluxation is an incomplete luxation.

[4] A luxation is a severe impairment of a joint, in the course of which the two bones connected by the joint are not only contorted but also displaced in their relationship to each other. Phrasing the luxation of a joint in colloquial terms, we speak of a dislocation. [5]

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URL: <http://de.wikipedia.org/wiki/Luxation> (accessed on 23rd April 2007)

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[7] Creating Chiropractic Community: Roentgen Report: Congenital Hip Dislocation. Status: February 1991.
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[8] Association " Société Française d'Orthopédie Pédiatrique" <http://www.sofcot.com.fr/03-espace-grand-public/publication/432.pdf>

[9] Orthopaedic University Hospital Heidelberg: Luxation of the Hip Joint and Impairment of the Hip Development (Dysplasia)
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[10] Orthoseek, the source of authoritative information on pediatric orthopedics and pediatric sports medicine: Hip Dysplasia.
URL: <http://www.orthoseek.com/articles/hipdys.html>
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[11] Dr. med. Ewald Fettweis: Hip Dysplasia: Sensible Aids for Infant Hips, Trias, Stuttgart 2004, p. 34.