

**Office for Genetics
and
People with Special Health Care Needs**

Reduction Deformity: Upper Limbs

What Is Reduction Deformity: Upper Limb?

- It is the absence of a limb, part of a limb or a shortened limb

Signs and Symptoms

- Missing limbs - complete or partial absence of the upper arm (humerus), lower arm (radius and/or ulna), wrist (carpals), hand (metacarpals), or fingers (phalanges).
- Shortened limbs
- There are other associated conditions which occur in approximately 30-50% of the children born with Upper Limb Reduction Deformity. Some of the associated conditions are:
 1. Congenital Heart Disease
 2. Eye Malformations
 3. Kidney Malformations
 4. Intestinal Atresia
 5. Birthmarks
 6. Ear Malformations

What is the cause?

- The cause is often not known, but possible causes include interrupted blood supply during development, "bands" in the amniotic sac, genetic syndromes, or drugs such as thalidomide
- Recent research has shown that women who get 0.4mg of folic acid per day before they become pregnant and in early pregnancy may have a lower risk of having an infant born with a Upper Limb Reduction Deformity

Is there any treatment?

- Treatment varies pending the medical issue and associated conditions. However, surgery may be needed as well as prostheses and therapy to improve upper limb use
- For therapy services you can contact the Maryland Infants and Toddlers Program listed on the next page

Support Groups/Resources

- Helping Hands Foundation
www.helpinghandsgroup.org/support_groups.
- Kennedy Krieger Institute
<http://www.kennedykrieger.org>
443-923-9200
- March of Dimes
www.marchofdimes.com
1-410-546-2241
- Office for Genetics and Children with Special Health Care Needs
<http://fha.maryland.gov/genetics/bdris.cfm>
1-800-638-8864
- The Parents' Place Of Maryland
www.ppmmd.org
410- 768-9100
- Maryland Infants and Toddlers Program
http://www.marylandpublicschools.org/MSDE/divisions/earlyinterv/infant_toddlers/
410-767-0261 or 1-800-535-0182
- NIH Health information:
<http://health.nih.gov/topic/BirthDefects>
- CDC National Center for Birth Defects and Developmental Disabilities
<http://www.cdc.gov/ncbddd/birthdefects/index.html>
- National Organization of Rare Disorders (NORD)
<http://www.rarediseases.org/>
- Birth Defects Research for Children, Inc
<http://www.birthdefects.org/>