Limb Loss in Children: Congenital Limb Deficiencies & Acquired Amputations

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Losing a limb is always hard as it affects people’s minds as well as their bodies. This is hard for everyone – especially children. I often say to parents and children dealing with limb loss, “You are going through something that no one should ever have to.”

This article is about limb loss in children. It has facts about congenital limb deficiencies and acquired amputations.

Congenital limb deficiencies

This term refers to birth defects that affect children’s arms or legs. In the United States, congenital limb deficiencies occur in less than 1 of every 1,000 births. Children are more likely to have upper-limb deficiencies (hands and arms) rather than lower-limb deficiencies (feet and legs).

It is rare for children to have congenital limb deficiencies of both their arms and legs. It is also rare for children to have total limb loss (when all of a limb is
missing). Most often, part of a child’s limb is missing and what remains is misshaped.

**Upper-limb congenital deficiencies**

This type of limb loss most often affects children’s arms and hands. Most children function well and can hold or move objects even when parts of their arms and hands are missing or misshaped.

Many parents want to know about surgery for children with upper-limb deficiencies. Doctors often wait a number of years before deciding if surgery on an upper-limb deficiency will improve a child’s life. This gives doctors time to see how well children manage tasks like holding pencils or turning on switches. Unusually shaped upper limbs can often develop more use and function than initially thought. Given this extra time, children with upper-limb deficiency may require either no surgery at all or a much smaller surgery than was initially considered.
Lower-limb congenital deficiencies

Children with all types of lower-limb deficiencies (even minor ones of the toes or foot) should have full orthopedic evaluations of their legs, arms, hips and spine. These evaluations are needed because lower-limb deficiencies can be a clue that hidden hip, spine or internal problems may also be present.

Doctors are more likely to do surgery when the congenital deformity affects children’s legs and feet as compared to their arms and hands. Surgery on the legs and feet is also often done at a much younger age than surgery on the arms and hands. Early leg surgery is done so that the child’s ability to crawl, stand and walk is not delayed more than necessary. Surgery can help shape children’s limbs for prostheses or make it easier for them to stand and walk.

Before agreeing to surgery, parents and children should talk with doctors and understand what the specific reason for surgery is and what the goal is. The most commons reasons for surgery are: to straighten legs, to make both legs more equal in length, and to reshape the limbs for better prosthetic fitting.
Reasons why congenital limb deficiencies happen

Doctors do not always know why children have congenital limb deficiencies. Sometimes they are due to:

- **Genetic problems.** This means that limb loss is due to problems with the child’s genes (passed from parents to children). Sometimes there are genetic problems and no one knows why. Parents should talk with a genetic counselor, a health professional who helps people understand the risk that a disease or abnormality may be passed on to their children or grandchildren.

- **Environmental agents.** Sometimes children have limb loss because of environmental agents such as infections, chemicals, and medications such as thalidomide or high doses of Vitamin A. Problems happen when the mother is exposed to these agents early in her pregnancy (4 – 6 weeks after conception) at a time when the baby’s arms and legs are being formed.

Acquired Amputations

Acquired amputations happen after children are born. These
amputations may be due to cancer or other diseases, severe infections, abnormal blood vessels, or nerve problems. Children also can lose limbs from accidents and other types of trauma. In fact, lawn mower accidents are the most common cause of children’s toe and leg amputations.

Children with acquired amputations need surgery and rehabilitation. Sometimes, they need more than one surgery. Children will also need many fittings to adjust their prostheses as they grow.

I am always amazed by how well children and their families deal with limb loss. As Frederick W. Robertson (a preacher in the 1800s) once said, “Never does a man know the force that is in him until some mighty affection or grief has humanized the soul.”
To learn more:


Translated from *Notes from the Medical Director Limb Loss in Children: Congenital Limb Deficiencies & Acquired Amputations*

http://www.amputee-coalition.org/inmotion/jan_feb_06/congenital_limb_part1.html