

Syndactyly Polydactyly

BIRTH DEFECT RESEARCH FOR CHILDREN



What is Syndactyly/Polydactyly?

Syndactyly and polydactyly are the most common types of congenital hand deformities. Syndactyly is webbing or fusing between the digits (fingers or toes). The digits can be partially fused or fused along their entire length. The severity can range from simple fusion with digits connected only by skin to more complicated fusion with shared nerves, blood vessels, bones, and/or nails. Syndactyly most commonly occurs between the middle two fingers.



Syndactyly/Polydactyly



Polydactyly means having an extra finger and/or toe. It can range from a barely observable, undeveloped digit to a fully developed, functioning digit. When syndactyly and polydactyly are present simultaneously, it is called Polysyndactyly.

How many children have Syndactyly/Polydactyly?

One in 3,000 children in North America is born with syndactyly. It is more common in boys than girls. The occurrence of polydactyly varies from 1 in 3,300 to 1 in 630 for American Caucasians and from 1 in 300 to 1 in 100 for American Blacks.

How do you know if your child has Syndactyly/Polydactyly?

These hand defects are evident at birth. They can also be discovered during pregnancy by use of ultrasound.

What causes Syndactyly/Polydactyly?

Syndactyly usually occurs between the 6th and 8th weeks of fetal development when the digits fail to separate. When a child is born with syndactyly or polydactyly, he/she should be evaluated to determine whether the defects are symptomatic of more complex conditions such as Poland's Syndrome and Apert Syndrome (syndactyly), or Meckel Syndrome and VATER Association (polydactyly). In isolated cases of Polydactyly or Syndactyly, it may not be possible to determine the cause of the birth defect. When Polydactyly or Syndactyly are part of a syndrome, the cause may be a genetic defect. Some cases of Polydactyly and Syndactyly have been linked to toxic exposures during pregnancy.

How can you help a child with Syndactyly/Polydactyly?

For children with Syndactyly, surgery can separate the fingers or toes. X-rays will help the doctor determine the appropriate technique. The surgery may involve skin grafts taken from the groin area. Complicated Syndactyly will take more time to correct. For children with Polydactyly, surgery is necessary to remove the

extra finger or toe. Polysyndactyly is more difficult to correct due to the length of the surgery and the corresponding time under anesthesia. Complex cases could involve restructuring the hand or foot. Surgery is performed sometime between 6 months and 5 years of age. Factors affecting the timing of the surgery include your child's safety in undergoing the use of general anesthesia, the degree of his/her deformity, and how the deformity is impacting his/her development. There may be some discoloration on the grafts and some scarring for syndactyly patients. Also, there is the possibility of "web creep" (loss of the correction), which would require a minor surgery to correct.

What's in the future for a child who has Syndactyly/Polydactyly?

If Syndactyly or Polydactyly is only cosmetic and not symptomatic of a more complex syndrome, the prognosis for your child is excellent and a normal life span can be expected. If your child has a syndrome, his/her future development will depend on the prognosis for that disorder.

Fact Sheet by:

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