Polydactyly and Syndactyly

What are polydactyly and syndactyly?
Polydactyly occurs when a child is born with more than five digits (fingers or toes) on his or her hands or feet. The extra digit can be found on the right, left or both sides. It can be on hands, feet or both. It can also be on the side of the thumb, the pinky or both sides. The extra digits may be made of only skin or skin and bone.

Syndactyly is the incomplete separation of fingers or toes, sometimes called webbed fingers or toes. Syndactyly usually involves only the skin. It can also involve connections between the bones.

What types of problems occur with polydactyly and syndactyly?
Most children will have no problems with polydactyly and mild syndactyly. More severe syndactyly might impair a child’s use of his or her hands. Some cases of polydactyly/syndactyly are associated with genetic diseases.

How common are polydactyly and syndactyly?
Polydactyly and syndactyly are two of the most common birth defects. About 8,000 children in the United States each year are born with polydactyly and syndactyly. In Virginia, approximately 270 births yearly have these defects.

What causes polydactyly and syndactyly?
Polydactyly and syndactyly can occur as the only birth defect a child has. They can also occur in combination with other birth defects as part of a syndrome (combination of findings). The way in which a syndrome is passed through a family is specific to the given syndrome. A genetic counselor or geneticist can help you determine the risks for your family and situation.

In some families more than one person may have polydactyly/syndactyly. Parents of a child with polydactyly/syndactyly have a higher chance of having another child with polydactyly/syndactyly. Isolated polydactyly on the pinky-side of the hand is common in African-Americans. It is generally not associated with other health conditions.

How are polydactyly and syndactyly treated?
Small extra digits made up of mostly skin may have a string tied around them and will eventually fall off. Surgery may be necessary for larger digits. Surgery may be necessary for syndactyly that limits the movement or affects the appearance of the fingers or toes. Skin grafts may be necessary if significant areas of the fingers or toes overlap. Physical examination and blood tests may be done to rule out a genetic condition or other health conditions associated with the polydactyly/syndactyly.

Where can I go for more information about polydactyly and syndactyly?
March of Dimes Birth Defects Foundation
www.modimes.org 1-888-MODIMES (1-888-663-4637)

* This publication was supported by grant number U50/CCU321127-02 from the Centers for Disease Control (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC.