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Children's Orthopaedic
and Scoliosis Surgery Associates, LLP

Common Orthopaedic Conditions

Camptodactyly, Polydactyly, Syndactyly



Understanding Your & Child's Syndactyly

What is Camptodactyly?

Camptodactyly means a bent or flexed finger that cannot be fully straightened. Camptodactyly is more common in girls than boys. Some cases are inherited from the parents. It can be seen as early as in infancy and remain unchanged until the child becomes an adolescent. During the adolescent years, the flexion contracture can worsen.

Causes

The cause of camptodactyly is the imbalance of tendons, ligaments and muscles around the PIP joint.



Symptoms

The main symptom of camptodactyly is a slightly flexed posture of the middle joint, where the finger cannot completely straighten. It is most common in the little finger, but may affect other fingers as well. The condition may worsen over time, and may often worsen during growth spurts.

Treatment Options

Treatment of syndactyly depends on the severity of symptoms. Each child is different, and your physician will suggest the best treatment option for the child.

Surgical treatment for syndactyly is a reconstructive procedure. It is not possible to simply clip or cut the webbing. Your surgeon will carefully reconstruct a new space between the bases of the fingers or toes, and will place the incisions carefully to minimize scarring that might cause the digits to draw up and scar back together. There is never enough skin on the digits to close the skin just with sutures. There will be some small "bare" areas that will be covered with a bit of skin graft that will be borrowed from another spot on your child's body where there is skin that can be spared. The skin graft "donor" site is usually on the same wrist or arm, or on the lower tummy or groin area. This donor site will be closed up right away and will leave a single line scar.

After surgery we will protect your child's hand in a cast that is difficult for your child to wiggle out of. It is **very** important that you keep this cast clean and dry to prevent the buildup of heat and moisture that will lead to infection. We usually take the cast off at about three to four weeks after the surgery. If extra healing time is needed, a new bandage or cast will be put on then.

Some children will need a second "touch up" operation after their hands have almost finished growing.



Source: Children's Hospital of Philadelphia

Understanding Your Child's Camptodactyly

What is Syndactyly?

Syndactyly is the name given to the extra webbing between fingers and toes. It is very common and happens when this skin does not dissolve on its own at the end of the second month of pregnancy.

What causes Syndactyly?

Some kinds tend to run in families, which is called congenital, and for some types the cause is unknown, which is called idiopathic.

Types of Syndactyly

There are two different types of syndactyly: simple and complex.

- *Simple* syndactyly involves only the skin between the fingers or toes.
- *Complex* syndactyly involved the skin between the fingers or toes, and includes the nails and the bones underneath the nails.

Sometimes syndactyly can be part of a more complicated problem in the hand. With a complete examination and an X-ray, your healthcare provider can tell the difference and begin planning for treatment.

Syndactyly is not a dangerous or life threatening condition and does not require treatment until the baby is older and the risks of anesthesia are lessened. We prefer to wait until the child after one year of age.



Can Camptodactyly be Prevented?

No. There is not a 100% guarantee to prevent someone from developing camptodactyly.

Treatment Options

Treatment of camptodactyly depends on the severity of symptoms. Each child is different, and your healthcare provider will suggest the best treatment option for the child.

Camptodactyly does not interfere with function of the hand. Most cases are mild and do not require any treatment. Your healthcare provider may recommend stretching and splinting of the PIP (proximal interphalangeal Joint).

The need for surgery is rare and only recommended if the flexion contracture is interfering with hand function.

Your healthcare provider will diagnose camptodactyly based on your child's clinical examination and x-rays. X-rays may be ordered by your healthcare provider to confirm the diagnosis or to exclude other problems.



Understanding Your Child's Polydactyly

What is Polydactyly?

Polydactyly means "many digits." There are many forms of this common diagnosis. In the hands, there may be an extra finger on the thumb side, on the pinkie side, and or in the middle of the hand. Polydactyly of the feet is also common, with additional toes on the foot.

It is rare for the extra fingers or toes to be fully formed normal fingers or toes. Some of these digits may be very small, floppy and have non-functional tips. Others will have bones and joints, and some may even have tendons and movement.

Some forms of polydactyly are "isolated," meaning that there is nothing else wrong with the child. Other forms of polydactyly may have other conditions such as webbing, twisting or angling of other fingers. In rare cases, there may be problems in parts of the body other than the hand.

Polydactyly is common in children. It is not a painful diagnosis and is not an emergency to treat.



How does polydactyly occur?

Polydactyly is a congenital malformation, which means it happens before birth while the baby is still growing. Some forms of polydactyly run in families, other come as new "surprises."

Can Polydactyly be Prevented?

No, there is not a 100% guarantee to prevent someone from developing polydactyly.

How can Polydactyly be Treated?

The treatment of polydactyly depends on the exact shape and form of the extra digit, whether there are other problems in the hand or foot and whether or not the child has other more general problems.

If the extra finger or toe parts are very small, the treatment may be simply tying off or putting clips on the base of the digit to allow it to dry up and fall off (similar to the way the stump of the umbilical cord dried up, separated and fell off on its own). Any finger or toe that is too big for this will require surgery that will be done in the operating room under general anesthesia. Some polydactyly cases require delicate reconstructive surgery to rebuild the best parts to save for your child's best hand function.

There is no hurry in doing this because it is safer to wait until the baby is older. The risk of anesthesia is higher for a little baby, and lower for an older baby.

Your healthcare provider will discuss with you the exact plan for the polydactyly type of your child.

