

# Thumb hypoplasia



## **What is thumb hypoplasia?**

This is a term used to describe a small, abnormal or absent thumb. This ranges in severity from a small thumb with all the normal structures present to having some structures missing or no thumb present at all. In the most severe cases there may also be abnormalities in one of the forearm bones, called the radius. The condition is rare, affecting around 1 in every 100,000 babies.

## **Why has my child got thumb hypoplasia?**

In many cases thumb hypoplasia is part of a genetic condition and your child may be sent for genetic testing. In the remainder of cases the condition is spontaneous.

## **What causes it?**

As the hands form during development, various signalling chemicals tell the cells which structures to form. If there is a problem with these signals, those cells which should form parts of the thumb will fail to do so.

## **Is there anything else wrong with my child?**

Your paediatrician and surgeon will decide if any further tests need to be done for your child to rule out other abnormalities or conditions.

## **Does it hurt?**

No, this is not a painful condition.

## **Will my child be able to use their hand normally?**

Children are very good at adapting to what is normal for them and will likely develop ways to use their hands for most tasks, for example picking up objects between two fingers instead of between the finger and thumb. However, in the more severe cases of thumb hypoplasia, their activities will be restricted and surgery would be recommended to enable them to use their hand more strongly and effectively, as well as to make the hand appear more normal.

## **How is it treated?**

The surgeon will examine the thumb to assess which structures are present or absent, and an X-ray is needed to see how the bones are affected. For very mild cases of thumb hypoplasia where the thumb is simply small, but otherwise normal, no treatment is necessary. In other cases surgery may be needed, either to give stability to the thumb if supporting structures are missing, or to move one of the fingers to take the place of a missing or rudimentary thumb. The specific aspects of your child's surgery will be explained to you in detail by the surgeon in clinic, so that you have a chance to think about things and ask questions.

The surgery is usually done as a day case under a light general anaesthetic. An overnight stay is necessary for more complex cases.

Further surgery may be needed as your child grows.

## **Why might surgery be delayed after birth?**

Ideally, more complex surgery is performed a few months after birth when your baby is bigger, making both the technical aspects of operating and anaesthetising your child easier and safer. We also like to get your child's hand back to normal as soon as possible so that they learn to use it properly, whilst they still have the capacity to adapt to change. The balance between these factors is weighed for each individual child and their family.

## **How should I explain this condition to family and friends?**

You can give them a copy of this leaflet and tell them that thumb hypoplasia is a rare congenital hand condition that is dealt with early in life. Here in Cornwall we have a team of 3 specialist hand surgeons who have had training to treat this condition.

## **Any questions?**

Please contact one of the hand surgeons via the secretary on 01872 253438.

If you would like this leaflet in large print, braille, audio version or in another language, please contact the General Office on 01872 252690

