

# Children's Curly Toes

## What are curly toes?

This is usually present at birth (congenital) and tends to affect the third, fourth and fifth toes on one or both feet. It's medical name is clinodactyly. The movement of our toes is controlled by many tendons which run from the foot or the calf to the tips of the toes. Congenital curly toes are thought to develop because these tendons are too tight and pull the toe under the next toe, curling it towards the underside of the foot and often to one side. Occasionally, congenital curly toes are caused by a problem with the bones rather than the tendons. These need to be corrected by removing a small piece of bone and using a wire to stabilise the toe - this is not included in this information sheet. If the toe is bent and very stiff or if the toes overlap a lot, other treatments may be needed.

## What are the symptoms of curly toes?

The main symptom is the visible curling of one or more toes underneath the next toe(s). This may not cause any other symptoms, but you might notice that your child is developing areas of hard skin on the sole of the foot, having difficulty with wearing some styles of shoes or finding suitable shoes that fit properly. Sometime children can get pain with activity.

## What causes them?

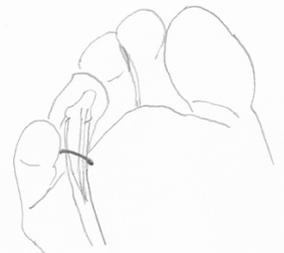
Congenital curly toes are thought to be caused by the tendon running underneath the toe being too tight and pulling the tip of the toe underneath the next toe and towards the sole. We do not know exactly what causes this tightening, but it has been noted that the condition can affect several generations, which implies that it is passed on from parent to child (inherited).

## How common are congenital curly toes?

It is one of the more common foot problems in childhood.

## How can it be treated?

Curly toes can be left if they are not causing problems. Most doctors suggest waiting until the age of 6 before deciding to proceed with an operation. We suggest stretching the toes out, usually when drying them after a bath and especially during periods when the child is growing rapidly. Many children and families will feel they are better off having an operation to allow the toe to straighten though studies suggest that only 1 in 10 curly toes cause any trouble. 1 in 5 cases are likely to resolve by the age of 6. While your child is under a general anaesthetic, the surgeon makes a small cut underneath the affected toe, near to the ball of the foot. The tendon is released to improve the position of the toe. This is repeated for each affected toe. The cut is closed using dissolvable stitches, which will not need to be removed and covered with a dressing. Towards the end of the operation, the surgeon will inject some local anaesthetic. The procedure takes around 20 minutes for each toe.



## Are there any risks?

As with all surgery, there is a small risk of complications. Bleeding can occur, but the surgeon uses a tourniquet to reduce blood flow to the operation site, so there is rarely any serious blood loss. There is a risk of infection as the skin is opened, but your child may be given antibiotics to reduce the risk of this. If an infection does occur, it is usually minor and easily treated with a course of antibiotics. There is a very small risk of nerve injury or of loss of the blood supply to the digit but this is very rare with experienced surgeons. There is a chance that the tendon could tighten again as your child grows older and his or her feet grow. This would cause the toes to start curling under again but is easily corrected with a repeat of the operation



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above. Swelling and persistent pain in the toe can be frustrating if they occur, though this is rare.

COVID-19 infection increases the risk of complications and we recommend you read the separate leaflet about this. If you are in one of the vulnerable groups you should think very carefully about proceeding with surgery unless it is absolutely necessary

Chronic regional pain syndrome (CRPS)

### What happens after the operation?

Once your child has recovered fully from the anaesthetic, he or she will be allowed to go home. For most children, this is usually four hours after the operation.

### When you get home

The operation is not a particularly painful one, so your child should only need a dose or two of pain relief such as paracetamol once you return home. We recommend trying to keep the foot up for the first day or so. The dressing should stay in place until the clinic appointment. We will send you an appointment at the dressing clinic one to two weeks after the operation so that we can check the operation site is healing well. Try to keep your child's foot clean and dry until the operation site starts to heal. The rest of the foot can be cleaned gently but the operation site itself should not get wet. After the dressing has been removed, your child should continue to wear shoes, especially out of doors, but they should allow plenty of toe movement to help the area heal. Open-toed shoes are not recommended due to the risk of infection.

The stitches will gradually dissolve but try to stop your child picking at them or any scabs that form in the first few days after the operation. As long as your child is generally well, he or she can go back to nursery or school a few days after the operation. We will often recommend

that you tape the child's toe for a month or two after the operation to stretch out the toe. This may reduce the curly toe recurring.

### You should call us if:

Your child has a temperature of more than 37.5°C. You can see swelling or redness near the operation site or there is any oozing. Or If your child is in a lot of pain and pain relief does not seem to help.

### Further reading

<https://posna.org/Physician-Education/Study-Guide/Curly-Toe>

Biyani A, Jones DA, Murray JM. Flexor to extensor tendon transfer for curly toes. 43 children reviewed after 8 (1-25) years. *Acta Orthopaedica Scandinavica* 1992; 63(4): 451-4.

Hamer AJ, Stanley D, Smith TW. Surgery for curly toe deformity: a double-blind, randomized, prospective trial. *Journal of Bone & Joint Surgery -British Volume* 1993; 75(4): 662-3.