

# Fact Sheet



## Vertical Talus

The talus is a bone in the foot, located between the heel bone (calcaneus) and the two long bones of the lower leg (tibia/fibular). The talus has an important function as it helps to transfer weight across the ankle joint and usually sits at a 45 degrees angle: in Vertical Talus it points straight down. The back of the foot is often affected with the heel bone lifting and the Achilles tendon tightening. The foot will point up and out, often touching the outside of the calf when the baby is born. The heel of the foot will point outwards and raised, usually curving outward like the bottom of a rocker. For this reason, this condition is often called rocker-bottom foot.



Vertical Talus is usually diagnosed soon after birth but sometimes it can be seen on routine ultrasound scans during pregnancy. The condition is rare, occurring in only one in 10,000 children. In about half of the cases, both feet are affected, and it occurs both in girls and boys.

The word 'congenital' means present at birth, so the condition can sometimes be called Congenital Vertical Talus (CVT) and it can occur at random without any cause. There is also a less severe form of the condition called oblique talus. In children, with oblique talus, the talus bone is positioned in the wrong direction while weight bearing but aligns normally when the foot is pointed down. The foot appears to be more severe than the usual flatfoot, but less severe than a foot with vertical talus.

### Why does it happen?

The cause of Vertical Talus is not known. It is often part of a wider neuromuscular condition (a problem affecting the bones and muscles) or can be linked to a genetic syndrome, some genetic conditions may be present. Because of this, your doctor may decide to do some more tests to find out if there is any underlying condition, which is present, but not obvious at the time of birth.

Although it can occur on its own, there are a few conditions that are linked to Vertical Talus. Your doctor will be able to check for linked conditions.

### Diagnosis

Many cases are likely to be detected at birth and some during an ultrasound. Considering Vertical Talus is quite rare, initially, a misdiagnosis with the more common foot condition talipes/clubfoot may arise.

It is important that a baby with suspected Vertical Talus is seen by a paediatric orthopaedic specialist in order to be diagnosed accurately. Healthcare professionals typically look at a family's medical history, symptoms, and physical examination to make a diagnosis. X-rays are often used to confirm diagnosis.

While Vertical Talus is not painful in very early childhood, if left untreated it can lead to pain and disability later in life. If a child learns to walk and the deformity is allowed to progress, calluses and painful skin problems may develop. It may become hard to find comfortable footwear and walking may be affected.

In some cases, CVT, Congenital Vertical Talus, may be diagnosed in older children when they are at a walking age or even older. Signs of CVT are usually present in the form of one or both feet appearing very flat when standing.



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**The Leading Charity for Lower Limb Conditions**

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## Treatment

Ideally, the foot should be treated before your child starts to walk, although timings for treatment may vary due to other considerations. Congenital Vertical Talus will not improve with just stretching and casting but will need surgical intervention. This can be performed through either a closed or open approach depending on the severity of the condition.

Oblique Talus may respond to just stretching or casting, using a reverse of the Ponseti method used in clubfoot. However, minimal surgical intervention will be needed. The closed surgical technique or reverse Ponseti Technique involves a series of casts to realign the bones in the mid part of the foot. The casting phase is followed by surgery on the foot. A pin, or pins, may be temporarily inserted to hold the bones in proper alignment; at the same time, a tenotomy (cut of the tendon), may be performed to release the tight Achilles tendon allowing the heel bone to sit in its correct position.

Following the surgery, the foot is placed in a cast for several weeks. The pin will be removed at the hospital when the cast comes off and then overnight bracing (boots and bars) and daytime orthotics are used. The wearing of the pre-fitted brace, orthotic, will usually be required so as to prevent the Vertical Talus from recurring. Very occasionally the foot will not fully correct with this technique and will require more extensive open surgery which can vary in nature dependent on the severity.

## When will treatment start?

This is very much tailored to each individual and decided upon after thorough examination and discussion with the medical team. The type and timing of non-surgical/surgical procedures will depend on many factors. The ideal time for treatment is after six months but before the age of two.

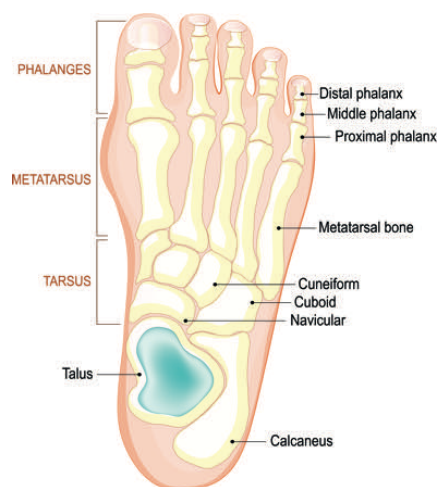
Depending on the severity of the condition it will take a number of weeks in each plaster cast and up to 2 years in a brace. As with every treatment and diagnosis, daily exercises will include stretching which parents will be taught to do by the medical team.

## How will it affect my child?

The condition is not painful, but it usually needs treating when a child is young as it can cause pain and problems walking if left untreated.

Most children who are surgically treated for Congenital Vertical Talus have good outcome; some children may need an orthotic to ensure proper foot alignment during critical growth and development periods; this could be an insole or an orthotic splint (AFO).

### BONES OF FOOT



## Sources of support

Our helpline +44 (0) 1925 750271 is open from 9am until 5pm on weekdays, for any questions you may have about practical support. Medical enquiries can be passed to our panel of NHS consultants. Email [info@steps-charity.org.uk](mailto:info@steps-charity.org.uk) with a specific request or fill in a contact form on our website.

The Steps closed Facebook Group is a friendly and safe way of discussing your worries, sharing tips and finding emotional support. Our Family Contact service identifies someone else who has been through a similar situation and who's happy to talk about their experiences, on a one-to-one basis, to offer support.

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