Congenital Vertical Talus

OVERVIEW
Your child has been diagnosed with congenital vertical talus. The talus is the bone of the foot that makes up the lower part of the ankle joint. In congenital vertical talus (CVT) there is abnormal positioning of the talus and navicular bone (another bone of the foot) which leads to a rigid, flat foot. The navicular bone slides on top of the talus bone. The hind foot (or part of the foot closest to the heel) points down towards the floor while the forefoot (nearest the toes) points upward. In essence, this condition is a dislocation of several bones in the foot.

BACKGROUND
The causes of congenital vertical talus are not known and probably vary from case to case. It is thought that abnormal pressure placed on the foot while the fetus is inside the uterus can lead to vertical talus. Others think that a muscle imbalance that causes the condition. In either case, a stiff hind foot causes the forefoot to ride up on top of the talus, thereby destabilizing the entire foot. Some studies do show a genetic component.

CLINICAL PRESENTATION AND DIAGNOSIS
When a baby is born, the appearance of the foot is not as striking as one might think. The foot has a convexity of the sole. This can be thought of as a reversal of the normal arch of the foot (i.e. the curve is upside down). There is also a crease on the outside/top portion of the foot. As the child walks, a callous forms on the sole of the foot right under where the talus touches the ground. If this is left untreated, it can lead to a flat foot and pain by the time the child reaches adolescence or early adulthood. At this point, wearing shoes becomes awkward and the patient may walk in a strange manner.

TREATMENT
The condition must be recognized early and treated aggressively. If not treated, this can lead to the development of a significant callous on the bottom of the foot, breakdown of the skin, and a poor push off that hinders the ability to walk correctly.
Surgery is preferred before the child reaches the age of two. Sometimes casting and manipulation of the foot are used before surgery to help stretch the tissues, but these are not effective alone.

Surgery consists of opening the foot and fusing the joint between the talus and navicular bone. Other tendons that may be contracted and cause the foot to take on an abnormal posture should be lengthened (such as the Achilles tendon or heel cord). Older children may require more complicated procedures such as fusing the talus to the bone in the heel.

**PROGNOSIS AND EXPECTED OUTCOMES**
The prognosis is poor if left untreated. The shape of the foot can often be corrected with surgery and prognosis for a well functioning foot is quite good if treated aggressively. Complications of surgery include stiffness of the foot or the need for further surgery to correct the defects.

**MORE INFORMATION**
Further information can be obtained on the internet. Your local public library can help you explore these sources if you are interested. Two good sites for expert and peer reviewed information are the American Academy of Orthopedic Surgeons at [www.aaos.org](http://www.aaos.org) and [www.emedicine.com](http://www.emedicine.com).

**FEEDBACK**
If you have questions or comments, please contact the office or submit them to the web site at [www.pedortho.com](http://www.pedortho.com).