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## **HIGH ARCH (CAVUS) FOOT**



### **What is a Cavus foot?**

Pes cavus is a complex deformity of the foot involving a very high arch (see picture, right), in-turning of the heel and often clawing of the toes. It can be associated with a number of neurological or muscular problems such as spina bifida or Charcot-Marie-Tooth disease, although occasionally no cause is found.

### **What are the symptoms?**

The symptoms of a cavus foot will depend on the exact nature of the deformity and the underlying cause. They include aching of the ankle due to in-turning of the heel, pain under the metatarsal heads, claw toes and difficulties finding footwear that fits comfortably.

### **What investigations are needed?**

The most important investigation is a thorough history and examination of the problem. Weight-bearing x-rays will be taken of the foot and ankle (see right). In order to determine the presence of any muscle weakness, it is occasionally necessary to arrange special nerve tests. We may also arrange scans of the spine if there is the possibility of an abnormality that could be affecting the nerves or muscles of the leg.

### **What is the treatment?**

- Non-surgical - footwear modification and orthotic insoles are often sufficient to relieve symptoms in milder cases. If this fails, however, then surgery may be required.
- Surgical – the exact surgical procedure will depend on the deformity that is present, the

cause of the deformity as well as the main symptoms. The surgery itself can be extremely complex, requiring a combination of a number of procedures. These can include removal of bone from the heel to realign the shape (calcaneal osteotomy), tendon transfers, release of the fibrous tissue on the sole of the foot (plantar fascia), removal of wedges of bone from the middle of the foot or the metatarsal of the big toe or fusion of joints in the foot to reduce the high arch (see picture, right) and a number of procedures to straighten the toes.

### **What is the recovery after surgery?**

The operations are often lengthy and may be staged several weeks or months apart. You may be in plaster for up to three months and it can take six months or more until swelling has settled and function is beginning to return to normal. If both feet are involved it is best to leave between four to six months between sides. Surgery is, however, usually successful in improving the shape of the foot and relieving symptoms.

### **What are the complications of surgery?**

There is the risk of complications with all surgical procedures. Risks of severe complications are increased in heavy smokers, and if there is significant deformity. The surgery itself is performed under a general anaesthetic. Whilst there is a risk from the anaesthetic, with modern techniques this risk is now very low.

There are also risks from the surgery, which include infection, pain, swelling, a failure of the bone to heal (known as non-union), stiffness, blood clots, nerve and blood vessel damage and a risk that the surgery may not fully cure the symptoms.