



# Talipes

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Talipes is more correctly referred to congenital talipes equinovarus (CTEV). It is a relatively common condition affecting 1 per thousand caucasian births rising to 9 per thousand in Polynesians. Male children are more commonly affected than female with a ratio of 2.5:1. In 50% of cases the condition is bilateral.

## *Pathogenesis*

The exact cause is unknown and while there is a genetic link the risk is only 10% when there is an affected first degree relative. The condition is therefore likely a combination of genetic and environmental factors. An increased risk is seen with exposure to certain teratogenic agents such as sodium aminopterin and also in the presence of oligohydramnios (low volume of amniotic fluid).

## *Morphology*

The deformity of talipes occurs as a result of soft tissue and bony abnormalities. The posterior ankle ligaments, medial and plantar (sole) ligaments of the foot and the tub-talar ligaments are all shortened. The talus is internally rotated and the calcaneus laterally rotated.



The picture above shows a typical example of talipes in a newborn child. You can see how the shortening of the medial structures is drawing the ankle into equinus (toes downwards) and varus (towards the midline).

## *Management*

Conservative management should be attempted in almost all cases. The success of conservative management depends on the degree of equinus present. The usual conservative course of management is using serial casting (plaster of paris) with the Ponseti technique. Over a period of 6 weeks serial casts gradually reduce the level of deformity starting by correcting the cavus foot deformity, then the subtalar and calcaneal deformities and finally the equinus. If this is successful then an orthosis is then used for some months and night splints for 2 - 4 years.