



## Children: Common Orthopaedic Problems

*Parents spend 9 months awaiting the arrival of their perfect baby but sometimes you can be faced with a baby with not so perfect feet. Chloe Howitt, specialist paediatric physiotherapist with physio2go St. Albans discusses current treatment regimes for common orthopaedic conditions presenting in infants and young children.*

### Talipes

Talipes, commonly known as clubfoot, occurs in approximately 1 in every 100 births and is twice as common in boys. The cause is unknown. Talipes may be positional or structural.

Positional talipes is due to restrictions in space in the womb as the baby is developing. Once the baby is born and they are able to stretch their legs out, the foot often returns to a normal position. If the baby is seen by a physiotherapist advice and stretches are given to help the baby achieve a good foot position.

If, however, the foot is turned inwards and downwards and the calf muscles are thinner and the foot shorter than normal, it is known as structural talipes (equino varus). The position of the foot is fixed and cannot be easily manipulated or corrected.

### Treatment Plan

Although surgery used to be the first treatment option, current management of talipes equinovarus now favours the Ponseti Regime. It was developed by Dr Ignacio Ponseti in the USA over 30 years ago. He believes better results can be achieved using casting and manipulation than surgery.

A plaster cast is first applied, with gentle manipulation of the foot towards a better position; serial plaster casts are applied approximately every week, gently coaxing the foot towards the ideal position. The Pirani score is the assessment tool used by health professionals to assess the improvement after each casting.

After the casting has achieved a good position of the foot then a boot and bar is used to maintain this position.

It is worn full time for approximately 12 weeks and then at night and other sleep times and can be used up to the age of 4 years or until they are walking well. Occasionally a small surgical tendon lengthening may be necessary if the foot is not able to be fully corrected by casting. However, this can often be done under local anaesthetic.

### **Intoeing**

Some parents may notice that when their child starts to walk they may have a pigeon toed gait (intoeing). This is a fairly common occurrence and in 95% of children with intoeing, it resolves spontaneously by the age of 8.

In healthy children there are 3 main causes of intoeing:

Metatarsus adductus – where the toes and the front of the foot curve inwards. Although this normally resolves spontaneously, a physiotherapist can help to show stretches to improve this condition.

Internal tibial torsion – where one of the lower leg bones twists. This is normal in babies and usually resolves as the child grows.

Femoral anteversion – where the thigh bone (femur) twists inwards and causes the knees to knock together and the feet turn inwards. As in other conditions, a specialist physiotherapist can work with parents on an exercise plan. This also usually resolves by the age of 8 years.

### **Toe Walking**

Children can occasionally start to walk on their tip toes; this is often an acquired habit which they grow out of. If, however, you feel your child is unable to get their feet flat and their ankles feel tight to move, then it is best to be checked by a physiotherapist. A physiotherapist will give exercises, advice and stretches to improve the length of the muscles in your child's foot and enable him/her to walk with their heels down.

### **Flatfeet (pes planus)**

This occurs when the normal foot arches have not developed and the entire sole of the foot touches the ground when the child stands. It is very important to note that all children up to the age of 3 or 4 years will have flat feet as their arches have not yet formed.

Even in an older child, flat feet may cause no problems or pain. If, however, pain or difficulty in walking occurs, a specific exercise plan, arch supports for shoes and professional advice from a physiotherapist are warranted. There is no need to limit your child's activities in any way; running, jumping, or walking on flat feet will not aggravate this condition.

### **Parent Education**

A specialist physiotherapist will include parents in the treatment by first educating them in the nature of their child's condition. The physiotherapist will also provide information on the rationale for the selected intervention.

Teaching parents specific stretches and exercises to carry out with their child is an important part of the recovery process. Working with parents on a personalised plan of treatment also helps to promote a positive attitude and peace of mind.

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