

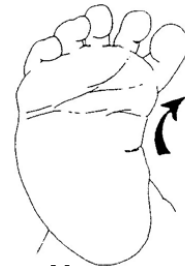
In Toeing

Description

- In-Toeing is very common in children and may occur at various times during childhood development
- In toeing may also be referred to as pigeon feet
- The condition may occur because of an inward twisting along various areas of the leg including the hip, thigh, shin, and foot. Where this occurs along the leg is highly correlated with age, posture, sex, and particularly sitting position
- Most of these conditions are benign, do not require surgical treatment, and resolve as the child ages, typically by 8 to 10 years of age

Types of In Toeing

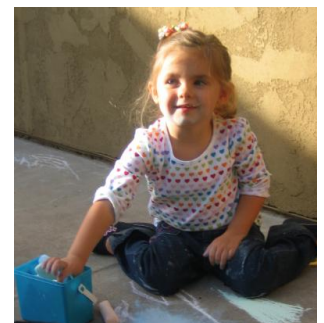
- **Metatarsus Adductus** - also known as inward twisting of the foot, is a condition where the bony distal parts of the foot are turned inward. The condition is usually seen in the first year of life due to limited space of the uterus during growth and development of the fetus. Standing examination reveals normal hip, knee, and ankle alignment.
- **Internal Tibial Torsion** - a condition in which the tibia (shin bone) is turned inward as a result of sleeping or sitting positions. The condition is usually seen by age two and is most apparent when the individual begins to walk. Standing examination reveals normal hip and knee alignment, but inward rotation of the foot and ankle
- **Femoral Anteversion** - a condition in which the femur (thigh bone) is turned inward. Femoral anteversion is twice as common in girls, usually occurs between the ages of 3 to 6, and has a high association with sitting position. Many children affected by this condition sit in the “W” position. Standing examination reveals inward rotation of the ankles, feet, and particularly the knees.



Metatarsus Adductus



Internal Tibial torsion

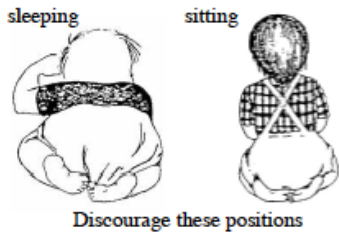


“W” position

Treatment

- Regardless of the location of inward rotation, most children outgrow the condition by the time of adolescence. In the past, complex shoes, braces, or castings were used to correct the deformity, but current research has steered away from this.
- Correction in sitting posture is very beneficial in resolving these conditions

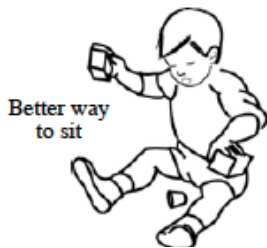
- In very rare instances is surgical intervention indicated. Surgery usually entails fracturing a bone at the involved segment of the leg, rotating to make the leg straight, and applying a cast to allow the bone to heal in the correct position. This is usually not needed as most children outgrow their in toeing
- Metatarsus adductus treatment – usually only involves observation and rarely is a correcting orthopedic shoe, cast or surgery indicated



- Tibial torsion treatment – discouraging the child from sitting or sleeping on her or her feet will promote resolution of this condition. In severe cases, a night brace (such as the Denis Browne bar or Friedman splint) may be prescribed for the child to wear to prevent the child's feet from curling underneath them

- Femoral Anteversion treatment – the best treatment is to instruct children to sit in the

“Indian” or “legs criss-cross applesauce” position as opposed to the “W” position



Better Way to Sit