



Intoeing / Outtoeing

Intoeing and outtoeing are common in children and are usually part of normal development.

What is intoeing?

Intoeing refers to feet that are turned inward during standing or walking. The cause may be from the foot, shin bone or thigh bone.

- **Foot (Metatarsus Adductus)**

Metatarsus adductus is the most common cause of intoeing from birth to 18 months of age and is caused from intrauterine (position in the womb) positioning. The foot is curved inward, similar in shape to a kidney bean. If the foot is flexible and can be gently pulled into a straight position, treatment is usually not necessary. You should see improvement in your child's foot position once they begin to walk and wear shoes. If the foot is more rigid, your doctor may recommend stretching, special shoes or casting.

- **Shin bone (Internal Tibial Torsion)**

Internal tibial torsion is the most common cause of intoeing in toddlers and young children and is also caused from intrauterine positioning. The shin bone (tibia) is twisted or rotated causing the foot to turn inward. It often gives the appearance that the lower leg is bowed. You can expect to see improvement of this condition by 6 to 7 years of age.

- **Thigh bone (Femoral Anteversion)**

Femoral anteversion is the most common cause of intoeing in older, preadolescent children up until the early teenage years. This is a slight inward rotation of the thigh bone (femur). You may notice when your child walks that the kneecaps will point inward or they may sit in a "W" position.

What is outtoeing?

Outtoeing refers to feet that are turned outward during standing or walking. The cause may be from the foot, shin bone or thigh bone.

- **Foot**

Different types of foot positions can contribute to outtoeing such as flat feet.

- **Shin bone (External Tibial Torsion)**

External tibial torsion can be a cause of outtoeing and is the opposite of internal tibial torsion. In this instance the tibia bone is externally rotated. This condition can improve with growth and does not require treatment.

- **Thigh bone (Femoral Retroversion)**

Femoral Retroversion is a common cause of outtoeing in children and is caused by more outward rotation of the thigh bone (femur). In young children you may see improvement of the outtoeing gait, but in older children this may not change.



What is the treatment?

Medical treatment such as physical therapy and bracing are ineffective treatments. Many years ago, it was believed that bracing, exercises or special shoes helped correct intoeing and outtoeing. However, years of study have demonstrated that they are **not** effective.

While intoeing and outtoeing usually improve with time, they do not always completely resolve. It is important to remember that some intoeing or outtoeing is still within the range of "normal." Outtoeing or intoeing is not associated with any long-term problems in adults.

Facts about outtoeing / intoeing

- Intoeing and outtoeing will not affect your child's ability to walk, run or play.
- Falling is a part of learning to walk and run and is not solely caused by intoeing, although it may seem more common in children with intoeing.