

Montefiore Pediatric Orthopedic and Scoliosis Center

Children's Hospital at Montefiore

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Toeing In

Many babies are born with feet that turn in or out. This may be the result of the child's position in the uterus. In general, this is not a serious orthopedic problem and corrects by itself with time.

Examination:

Children toe in because there is an inward twist to the bone in one of the following areas of the leg: **1) Foot 2) Shin (calf) 3) Hip-thigh**

The Foot:

A twist in the foot is called **metatarsus adductus** (also called metatarsus varus). Most cases are mild and correct without treatment.



Metatarsus adductus



Internal tibial torsion

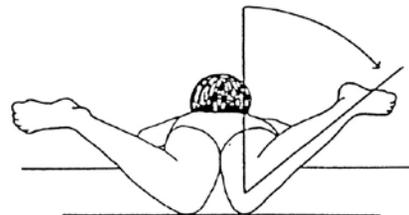
The Shin (calf):

An inward twist between the knee and the foot, is called **internal tibial torsion**.

The Hip/Thigh – Children over the age of 3 years may toe in because of increased **femoral anteversion**. This is an inward twist of the bone above the knee. This causes the knees to point inward when the hips are straight ahead. The child often chooses to sit on the ground in the “W” position.



Sitting in “W” position



Treatment:

Toeing in due to any of the above reasons usually improves without treatment. Often a simple change in sitting position is all that is required. In the past complex corrective shoes and braces were used but current research suggests that they are rarely needed. The condition simply corrects over time.

Treatment - Metatarsus Adductus:

In rare instances metatarsus adductus (twist in the foot) may require corrective orthopedic shoes (straight or reverse last), corrective casts, or surgery.



Straight last shoes Reverse

Treatment - Tibial Torsion:

Most cases of internal tibial torsion require no treatment because they slowly improve over time with no treatment. Allowing the child to sit on his/her feet may prevent spontaneous correction. For most children, changing this habit may allow the condition to correct itself.

sleeping



sitting



Discourage these positions

In a few severe cases of internal tibial torsion a night brace (Denis Browne bar or Friedman splint) may be prescribed to keep the child from sleeping with their feet curved underneath them.

Treatment - Anteversion:

Most femoral anteversion requires no treatment because it improves slowly on its own over time. The child should be encouraged to sit "Indian style" or in the tailor position and should avoid the



"W" position
(avoid)



Best
sitting position

Summary:

Toeing in seems to be a part of growing up for many normal children. In very rare and severe cases, corrective surgery may be required at an older age. Almost all children have corrected on their own by age 8-10 years thus surgery is almost never required.

Addendum: A special thanks to Dr. Lynn Staheli of Seattle for allowing us to modify drawings from his original work.