

Cactus Pediatric Orthopaedics

dba Kids' Fracture Care

Greg Hrascky M.D.

Trent Tipton, PA-C

Sarah Bolander, PA-C

(480) 551 – 0300

Intoeing

What is intoeing?

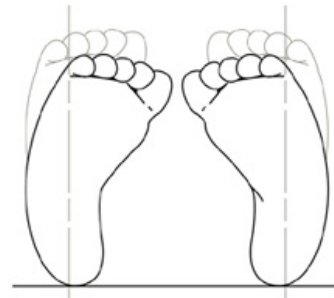
Intoeing is a description of foot progression, in other words the feet turn inward instead of straight forward. This is normally noted when walking and can become more profound while running. This is commonly found in children and varies based on child and age. There are 3 common causes for intoeing, which includes metatarsus adductus (curved foot), tibial torsion (twisted shin bone), and femoral anteversion (twisted thigh bone).



What are the causes of intoeing?

Metatarsus Adductus

This is an inward pointing of the toes which occurs at the mid-foot. It is commonly noticed early in childhood and in general is flexible. The lateral border (outside) of the foot is curved but most of the time will correct with stimulation. This is a sign of a mild form and should correct with time. Occasionally the more rigid variants require further treatment.



Tibial Torsion

This is a twisting of the tibia (lower leg bone) that causes the foot to turn inward. The twisting of the bone occurs in-utero to allow room for fetal development. After birth, as the child grows, the tibia tends to correct the twisting.

Femoral Anteversion

This is twisting of the femur (upper leg bone) that causes the feet to turn inward. This is most often apparent at age 5 or 6. This "spin" of the bone also causes the knees to point inward which is more noticeable with walking and especially running. Children have an "egg-beater" look when they are running. Children with femoral anteversion will also be able to "W" sit, which does not worsen the condition.

They "W" sit because they can and it's comfortable for them.

What are the symptoms of intoeing?

There is usually no pain associated with intoeing and it does not cause any developmental delays with walking and running. Children with intoeing seem to stumble and trip more often, especially when wearing floppy shoes. Children with a mild inward foot progression tend to be faster sprinters. There is no proven, clear association of intoeing and arthritis.

What are the treatment options for intoeing?

- In the majority of children under age 8, intoeing will accommodate itself and does not require any bracing, casting, or surgery
- Metatarsus Adductus
 - Usually this is a wait and watch situation that will correct itself over the first 4 - 6 months of life
 - Reverse shoes or orthotics are occasionally used
 - For the more rigid cases casting may be done to correct the deformity
- Tibial Torsion
 - This condition will almost always correct itself by school age
 - If severe twisting causes walking problems, surgical correction may be warranted (rare)
- Femoral Anteversion
 - This condition is usually well tolerated by age 9 - 10
 - No special braces or shoes are required
 - Surgical correction may be needed for severe cases (rare)