INTOERING

This is typically due to the curled up position of the baby prior to birth. Over time, the intoeing will typically correct but this process is very slow and gradual.

If feet are significantly turned in after 10 years of age, they are unlikely to correct. The turned in appearance of the feet does not typically cause a limitation in the activities or athletic abilities of a child but, if severe, poses more of a cosmetic concern.

Typical causes of intoeing:

**Metatarsus adductus** – Newborns or young infants with feet shaped like a kidney bean. This is a result of in-utero position and spontaneously corrects. Stretching the foot on a daily basis (typically with diaper changes) may speed up the process of correction.

**Internal tibial torsion** – This is an inward twist of the tibia (shin bone). It is typically the result of the position of the baby prior to birth and will correct with normal growth.

**Femoral anteversion** – This is an inward twist of the femur (thigh bone). Children with this type of twist are able to W-sit. Again, this will typically correct with growth.

OUTTOEING

The typical causes of outtoeing:

**Femoral retroversion** – A developmental variant that results in the twisting out of the femur.

**External tibial torsion** – A developmental variant causing an outward twist of the tibia.
NORMAL DEVELOPMENT

Flat feet – Describes the appearance of a foot that does not have an arch. This is a normal variant that typically does not cause foot pain.

Most babies and toddlers do not have arches as a result of laxity and “baby fat” which distorts the appearance of the foot. As children get older, the laxity of the foot disappears and the arch may appear. If a child has not developed an arch by seven years of age, they will likely always have flat feet. Occasionally, a flat foot deformity will be more exaggerated causing an outtoe appearance. If flat feet become painful, this is treated with stretching of the Achilles tendon.

Bowlegs – This describes when the entire leg curves outward with the majority of the deformity noted at the knee. Babies are often born with a slight bow to their legs and this will typically worsen until 2 years of age and then gradually improve.

Knock Knees – This describes legs in which the knees come together and the feet point outward. This typically develops after the age of 2 years, worsens or progresses until 4 years of age, and then gradually corrects to a straight appearance by 7 years of age.