

**Clinical Guideline:** In-toeing Site: FPH

Common causes
Infant: Metatarsus adductus
Toddler: Internal tibial torsion
School-age child: Increased femoral anteversion (excessive range of internal rotation and small range of external rotation)

History

General Information

Reassure the parents. In-toeing in most children will improve as they grow and no treatment is required.
In-toeing can persist into adult life but rarely does this seem to cause major problems

Advice and Treatment

In-toeing exceeds normal limits for age
Asymmetrical deformity (only one leg)
Tripping in a school-age child that affects participation in activities
Progressive in-toeing

Associated patella pain
Hypertonicity

Referral Guidelines – red flag signs

Investigation

Observe child's gait
Place in prone and check range for internal and external rotation of the hip, thigh-foot angle and foot posture

Examination

Three main causes:
1. Metatarsus adductus: the foot is turned inwards, thought to be related to uterine position of foot. The foot is flexible and improves by age 2 or 3. Gentle exercise may help, shoes or casting.
2. Internal tibial torsion: the lower leg turns inwards between the knee and ankle. This normally self-corrects by 8 years.
3. Internal femoral torsion: excessive femoral anteversion usually corrects by 10 years. Children often sit with bottom between their heels. There is no evidence this is harmful, but probably best to avoid it. There are no specific exercises, braces or shoes to help.