

# Flat foot

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All children (<3 years) have flat feet with a fat pad obscuring the arch. Over time, the longitudinal arch develops but 15% of adults have flat feet influenced by familial and racial factors. All flat feet have a flattened medial arch with a valgus heel but two types are distinguishable ( Table 44.3 ). The painless, flexible flat foot needs no treatment. Orthoses do not alter the natural history but can alleviate symptoms if they are present. The symptomatic, rigid flat foot is due to inflammation or a tarsal coalition and requires investigation and medical or surgical management ( Figure 44.4 ). (tibiofemoral angle) /H11002 /H11002 /H11002 /H11002 /uni25CF /uni25CF /uni25CF /uni25CF - Summary box 44.2 Normal variants /uni25CF /uni25CF /uni25CF - /uni25CF

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Figure 44.3 Graph to show the normal tendency of limb alignment to change from varus to valgus with growth; normal is slight valgus after the age of 7–8 years. Type Characteristics Flexible On tiptoe the arch returns and the heel corrects into varus Subtalar joint movements are full and pain free Rigid On tiptoe the arch fails to return and the heel remains in valgus Subtalar joint movements are restricted and often painful Figure 44.4 Oblique radiograph of the foot that shows the most common form of tarsal coalition: an incomplete calcaneonavicular bar (arrow). Legs are often bowed until age 2 years and then knock-kneed until age 6–7 years Neuromuscular pathology must be excluded in toe walkers, particularly when the onset is late Intoeing or extoeing is associated with excessive femoral or tibial torsion or foot deformity Flexible, pain-free /f\_l at feet require no treatment

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