

## Newborn Foot Answers

- 1) Metatarsus adductus (MTA) is a common foot deformity occurring in 1-2 cases/1,000 newborns. It is a transverse plane deformity in Lisfranc's joints (tarsometatarsal) in which the metatarsals are deviated medially. With the "V" finger test the heel of the foot is placed in the "V" formed by the index and middle fingers. The lateral aspect of the foot is observed from a plantar side for medial or lateral deviation from the middle finger. Medial deviation from the middle finger at the styloid process indicates MTA. 85-90% of cases resolved by 1 year of age so often observation is the best treatment. Severe, rigid MTA will require bracing and casting by an orthopedist.
  
- 2) The 4 main components of talipes equinovarus are 1) inversion and adduction of the forefoot; 2) inversion of the heel and hindfoot; 3) equinus (limitation of extension) of the ankle and subtalar joint; and 4) internal rotation of the leg. Extrinsic clubfoot is supple and is a severe positional or soft tissue deformity whereas intrinsic is rigid and manual reduction is not possible. Extrinsic is treated by serial casting while intrinsic clubfoot may eventually require surgery. Plaster casting is placed very early on in both types weekly to semiweekly and can be successful.
  
- 3) Congenital vertical talus is a rare deformity otherwise known as rocker bottom foot. It is a rigid deformity and usually requires surgery. The hindfoot is equinus with talus and calcaneus pointing downward and the forefoot dorsiflexed. This results in a dislocation of the midtarsal bones on the head and neck of the talus. Look for other deformities in these patients because up to 60% may have myelomeningocele and/or arthrogryposis (multiple joint contractures present at birth).
  
- 4) Polydactyly occurs equally in males and females and most commonly involves border digits, especially the fifth. Syndactyly occurs at various levels, partial to complete. The most frequent site is between the 2<sup>nd</sup> and 3<sup>rd</sup> toes. Both are thought to be genetic in origin.