

## GUIDELINE FOR ASSESSING FOOT DEFORMITIES IN BABIES

# The Royal Hospital for Children and Young People (RHCYP)

### **Physiotherapy Department**

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### Clinical Guideline for Primary Examiners performing Routine Examination of the Newborn

Foot abnormalities in newborn infants can be structural or positional in nature. Positional postures are common and are often of no clinical concern as they are self-resolving in nature. It is important for the primary examiner to be able to identify the difference in these to ensure timely treatment for those with a structural abnormality and also to ensure that parents are reassured for positional postures.

When examining feet always hold by the toes and gently guide the foot into a normal posture. Never hold at the heel.

#### Structural Talipes Equinovarus / Clubfoot



#### Assessment

- Usually diagnosed ante-natally and therefore already received antenatal counselling.
- Hindfoot is in equinus and midfoot is in adductus, varus and cavus
- This is not fully passively correctable
- To gently assess take by the toes and try to guide round if not fully correctable it is likely to be structural in nature
- If there are any other concerns with the baby consider a genetic/chromosomal abnormality

#### Management

- Do not give stretches
- Contact Sarah Paterson via email or 51079
- If diagnosed ante-natally then parents will already have lots of knowledge on this
- If not diagnosed ante-natally give some basic information regarding treatment likely to require plaster casting, small surgical release at heel and then a brace (12 weeks full-time wear and then overnight till age 5 years)

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#### **Positional Talipes Equinovarus**



#### **Assessment**

- Extremely common for feet to rest in plantarflexed and inverted positon
- Watch as baby kicks to see if self-corrects
- Tickle sole of foot to see if self-corrects
- To gently assess take by the toes and try to guide round if fully passively correctable then will be positional in nature.

- Positional equinovarus feet are self-resolving in nature over first 12 weeks of life
- No treatment or stretches are required
- No follow up is required



#### **Calcaneovalgus Foot**





#### **Assessment**

- Foot in dorsiflexion and forefoot abducted. Hindfoot points outwards but normal creasing around heel
- Anterior ankle structures can be contracted, although typically the foot is flexible and can be passively corrected although often only to neutral

- This foot posture is self-resolving in nature.
- No treatment or stretches are required
- Requires secondary neonatal hip examination (refer via newborn examination)



#### **Vertical/oblique Talus**



#### **Assessment**

- Foot in dorsiflexion and abduction (valgus) similar to calcaneovalgus however hindfoot is in equinus so usually has deeper posterior crease at heel and soft bulbous heel pad.
- Often rocker bottom appearance to sole of foot
- Not passively correctable
- 50% of cases associated to syndromes/genetic abnormalities/chromosomal abnormalities therefore consideration of additional investigations if any other concerns with baby

- Do not give stretches
- Contact Sarah Paterson via email or 51079
- Likely to require plastering, surgery and brace wear



#### **Metatarsus Adductus**



#### **Assessment**

- Metatarsals are deviated medially from tarsometatarsal joints. Hind foot is normal
- Splay between great and second toe
- Prominent styloid process of the 5<sup>th</sup> toe

- May be self-resolving but some do require treatment therefore refer to Sarah Paterson via email or 51079.
- Treatment usually consists of plaster casting and bracing