BEST FOOT FORWARD: intoeing and flatfeet

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central texas
PEDIATRIC ORTHOPEDICS
Pediatric Foot
Friday Morning Clinic

7: AnkE flu clinic
6: NP B to in
5: NP O foot turn out
METATARSUS ADDUCTUS

Normal foot

Metatarsus adductus

Metatarsal bones deviated inward
metatarsus adductus

- 1:1000 live births
- 50% bilateral
- Low incidence of hip dysplasia and torticollis
- Watch newborn
- Treat at 6 months if persistent
- 86% correct without treatment
- Surgery is rarely required
Skewfoot

- Marked forefoot varus with compensatory hindfoot valgus
- Peabody (1933)
  - Congenital MT Varus
- Blount (1949)
  - Skewfoot
Tibial Torsion
Femoral Anteversion
Genu Varum
Genu Valgum
Calacaneovalgus Foot

- Common neonatal foot deformity
- Positional
- Flexible, but limited plantarflexion
- Observation, stretching
- Become flatfeet???
Congenital Vertical Talus

- Rigid
- Neuromuscular/genetic association
- Dislocation midfoot on hindfoot
- Stress PF lateral
- Requires surgery
- One stage procedure
Flexible Flatfoot

Presentation

- Infancy >>>>>>
- Family/treatment history
- Excessive shoe wear
- Discomfort, not pain
- Feet tire/legs ache
- Standing worse than walking
Flexible Flatfoot

- Associations
  - Ligamentous laxity
  - Calcaneovalgus foot
  - Valgus alignment
  - Forefoot varus
  - Gastroc contracture
  - Neuromuscular
**Flexible Flatfoot**

- **Harris and Beath (1947)**
  - Flexible flatfoot rarely causes disability
  - Flexible flatfoot with Achilles contracture often causes disability
  - Rigid flatfoot is a disability
Gastrocnemius - Soleus

- Examine with foot in subtalar neutral or supinated
- Knee extended – gastrocnemius and soleus under tension
- Knee flexed – gastroc relaxed
- Equinus improves knee extended to flexed
  - Primary gastrocnemius contracture
RIGID FLATFOOT
Tarsal Coalition

- Fibrous, cartilaginous, or bony connection between two or more tarsal bones
- Failure of segmentation of primitive mesenchyme
- Bilateral > 50%
Tarsal Coalition

- 25% become painful
- Onset with maturity
  - 8-12 CN
  - 12-16 TC
- > Sx with TC coalition
- < Deformity with CN
- Recurrent “ankle sprains”