**The adolescent flatfoot**

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Evans AM, Rome K. A Cochrane review of the evidence for non-surgical interventions for flexible pediatric flat feet. Eur J Phys Rehabil Med 2011; 47:69-89

1. There are more flatfooted children than adults.
2. Pediatric flexible flatfoot reduces with age.
3. Most affected children and adults are asymptomatic.
4. There is very little evidence for the efficacy of non-surgical intervention to affect the shape of the foot or to influence potential long term disability for children with flexible flatfoot.
5. Many low cost, generic foot orthoses can provide good positional support and relieve symptoms in those feet with activity related pain, without changing the underlying structure of the foot.
6. There is no evidence which supports the use of surgical correction of the typically asymptomatic and flexible pediatric flatfoot.
7. Surgery is only indicated at the failure of thorough conservative management.
8. The indication for arthroereisis remains controversial. There is a high reported complication rate.

Deformities present in most symptomatic adolescent flatfeet

1. Valgus/eversion deformity of the hindfoot
2. Contracture of the gastrocnemius or triceps surae
3. Supination deformity of the forefoot

Calcaneal lengthening osteotomy for symptomatic flatfoot - Mosca’s technique for Evans’ concept

1. Strict indications for surgery
2. Ollier incision
3. Management of the lateral soft tissues
4. Location of the osteotomy
5. Stabilization of calcaneo-cuboid joint to prevent subluxation
6. Shape of the bone graft
7. Management of the medial soft tissues
8. Identification and correction of forefoot supination deformity
9. Lengthening of Achilles tendon or gastrocnemius tendon

Mosca VS: Calcaneal lengthening for valgus deformity of the hindfoot: Results in children who had severe, symptomatic flatfoot and skewfoot. JBJS 1995.

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