

Stop Maligning the Asymptomatic Child's Flatfoot

Recently, a lady met me and gave me some very colourful pamphlets about a range of fancy foot wear and shoe inserts for toddlers and young children designed to 'correct' flatfeet. I asked her why asymptomatic flatfeet need to be treated. I patiently listened to her as she listed several 'harmful effects of flatfeet' including a predilection for foot injury, back ache and so on, which, according to her could be avoided by using the shoes and shoe inserts she was promoting. Needless to say, there were no scientific data to support these claims. After she left, I reflected about what the scientific literature had to say about flatfoot and also recollected my personal experience of dealing with flatfeet in young children in my practice.

There has been a long-held notion that flatfeet are bad and that they may interfere with strenuous physical activity. On the basis of this, young men with flatfeet were rejected from recruitment into the armed forces. However, Cowan *et al.*^[1] did a study on army recruits in the USA and could not demonstrate a higher frequency of injuries in those with flatfeet. Esterman and Pilotto^[2] did a similar study in Australia and concluded that 'foot shape has little impact on pain, injury and function'. Tudor *et al.*^[3] studied athletic performance in school children with flatfoot and normal arches and documented no difference in performance in 17 different tasks. So it is high time we dispel the erroneous notion that the flatfoot is in some way inferior to feet with a well-formed arch.

Stemming from the belief that flatfoot is undesirable, concerted efforts have been made to 'treat' young children with shoe modifications and various types of shoe inserts that elevate the medial longitudinal arch or control the hindfoot valgus. Despite the fact that Wenger *et al.*,^[4] in as early as 1989, demonstrated clearly that shoes and shoe inserts in no way alter the natural history of flatfoot, orthopaedic surgeons continue to prescribe them. This wasteful and meaningless practice needs to stop.

The natural history of asymptomatic flexible flatfoot is that of resolution in the vast majority of children because the arch develops by the age of 6–7 years. This is very evident as at 1 year of age, 95% of children have flatfeet and by the age of 10, the prevalence is as low as 5%. The increase in the tone of muscles that support the arch and spontaneous reduction in joint laxity as the child grows facilitate the arch to develop. Barefoot activity in early childhood also facilitates the arch to

develop while shoe-wearing appears to be detrimental to the development of the arch. This was demonstrated in two large cross-sectional surveys, which showed that the prevalence of flatfoot was highest among children who wore closed-toe shoes below the age of 6 years and lowest in the unshod.^[5,6] The frequency of flatfoot in children who wore sandals and slippers fell between these two. With this evidence, it seems hardly logical to prescribe shoes for a young child with flatfoot. Instead, we need to spread the message to encourage children to play barefoot outdoors on sand and gravel. We could also encourage school authorities to have sandals rather than shoes as the regulation footwear. These suggestions are perfectly appropriate in the warm climate in India.

In my practice, I have never had parents from the lower socio-economic strata bring a child for the treatment of flatfoot. Every single child brought to me with the complaints of flatfoot has been from an affluent family. Often it has been a paediatrician, or family physician, who referred the child with flatfoot to me. For a long time, I wondered why there was this socio-economic difference in my flatfoot practice. It then dawned on me; the poor child is unshod and in early childhood has played barefoot, and the poor child consequently is unlikely to have flatfoot. Even if the poor child has flatfeet, they cause no pain and the feet function perfectly well. The child's parents have no access to the internet, so they have never heard anyone maligning their child's feet. No wonder, I never saw a poor child with flatfoot in my clinic.

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