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Paediatric flat foot and good shoes

FROM THE SPECIALTIES

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Stable shoes are often the best measure for painful paediatric flat foot.

Flexible flat foot in young children is common, and the majority develop a normal longitudinal arch before the age of ten (1, 2). The vast majority are asymptomatic and can wear any type of footwear they choose. There is no evidence to suggest that children with flat foot should wear special shoes or insoles (2, 3). Some children with flat foot experience discomfort with diffuse tenderness and become tired during physical activity. If rigid flat foot is ruled out, these children may benefit from supportive insoles as symptomatic treatment (2, 4).

Characteristics

Flat foot is not well defined but has several characteristic features (2, 5). The term 'overpronation' is a simplification of a complex misalignment. The heel is displaced laterally, with a tight calf muscle often contributing to the plantar flexion of the calcaneus and pulling the heel into valgus (1, 4). The talus, which sits on top of the calcaneus, also tilts and becomes displaced medially. The midfoot is abducted at the talonavicular joint, and the forefoot is relatively supinated in relation to the hindfoot (4). The condition therefore consists of a valgus hindfoot, medial collapse, abducted midfoot and supinated forefoot. Using an insole with a medial 'bump' designed to support the arch does not necessarily address the entire foot misalignment and can be uncomfortable to wear. We therefore also provide information about footwear at the paediatric orthopaedic clinic.

What are considered good shoes?

Children's shoes should be flexible and allow for growth and development (6), with the primary purpose being to provide a protective sole. However, stable shoes can help in cases of painful flat foot. There is a significant difference in the stability of different shoes. The goal is not to use special shoes, but to help patients find footwear they like. In practice, the shoe should determine the alignment and not yield to the foot. The heel counter at the rear part of the shoe must be stiff enough to keep the heel in position. For the heel counter to hold the heel, the shoe must be the correct size. The lacing should push the foot back into the heel counter. Velcro shoes should have a strap at the ankle. The sole should not twist lengthwise or yield to the foot misalignment. If the calf muscle is tight, a small lift under the heel can help alleviate symptoms. Children should be encouraged to stay active, also without shoes.

It is not necessary for the patient to wait for several months to have this conversation at a specialist clinic. This could ideally be done prior to referral.

Some children experience significant issues despite focusing on good footwear, and these children can be evaluated in the specialist health service.

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