

ABSTRACT

Title: Use of orthopaedic insoles in childhood

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Problem definition: The importance of the longitudinal arch is one of the most discussed topics in orthopaedics. Similarly important is the indication of orthopaedic insoles for flat feet especially in children. Experts have different opinions about what age insoles should be prescribed, and if their use is beneficial. So far, a clearly defined boundary has not been established between real pathology and a flexible flat foot formed on the basis of hypermobility which is to some extent physiological in childhood.

Aim: To compare the plantograms of groups of six-year-old children with diagnosed pes planus/planovalgus before and after six month (or more) use of, individually prepared, insoles. To compare the results with a group of children that did not have insoles prescribed and on this basis to judge whether there was change (improvement) that can be proven with the use of a plantogram.

Method: Two groups of six-year-old subjects were formed. The experimental group: subjects with prescribed orthopaedic insoles, and the control group: subjects that were not prescribed orthopaedic insoles. Plantograms were evaluated with the help of the Chippaux–Šmiřák index method.

Conclusion: The results indicate a partial confirmation of both hypotheses. In both groups most subjects showed improvement that could be confirmed with the use of a plantogram. The difference between the results of the two groups was not very significant. The picture (on the plantogram) also improved in the control group which indicates that the development of the foot arch is not fully complete at six years of age. No substantial correlation was found between gender, BMI, hypermobility and height of the foot arch.

Key words: Flexible flat foot, podiatry, plantogram, Chippaux – Šmiřák index