

Abstract

Title: 3D analysis of immediate effect on posture of shoe with postural insoles based on Rašev and with proceptor insoles PodoAktiv®

Objectives: The thesis aims to show the immediate effect of application of custom-made insole on postural hold of chosen body segments and we would like to determine whether it is possible to use PodoAktiv® or insole based on Rašev to correct body posture.

Methodology: In this thesis we examined 9 participants who agreed joining the study. We used the Balance®4D device made by Paromed company. The selected body segments were marked by white spheric stickers. To compare postural hold of selected body segments we examined the participants in altogether 4 situations. Barefoot stand, stand in shoes without insoles, stand in shoes with postural insoles based on Rašev and stand in shoes with proceptor insoles PodoAktiv®.

Results: The results of this study show that there is a slight immediate effect of the custom-made insoles on postural hold of body segments. Larger effect was observed in the participants who already had a bad postural barefoot hold. Of all 6 parameters, the biggest effect was observed in the shift of overall body axis after application of PodoAktiv® insoles.

Keywords: Shoe insoles, proprioceptors, somatosensory system, 3D static analysis, postural hold