

SUMMARY

Work title: The influence of the foot receptors stimulation by kinetic programme on balance during standing in people with visual impairments

Objectives: Identify, if we can by stimulation of foot exteroceptors and activating of foot muscles influence positively balance process in people with visual impairments.

Methods: Six people with visual impairments were participate in study. The kinetic programme was composed to excite foot receptors by stimulation of foot exteroceptors and excercising of foot muscles. Force platform Kistler and Footscan system were used to verify the changes in balance during standing. Measuring were realized in two times, before and after kinetic programme. The results of pretest and posttest were compared with each other.

Results: The results of posturography show that stimulation of foot receptors caused increasing of velocity of postural sways in anteroposterior and mediolateral direction. From the results of Footscan system it is obvious decreasing of total travelled way in four participants in all measured stances and changes of COP trajectory in wide stances. There is no significant change in distribution of foot stress, most of the weight was situated on participants heels in most cases.

Key words: balance, foot, people with visual impairments, posturography, Footscan system