

عنوان مقاله:

Investigating the relationship between frequency components of ground reaction force and sport shoe insoles comfort during stance phase of running

محل انتشار:

فصلنامه پزشکی هرمزگان، دوره 19، شماره 6 (سال: 1394)

تعداد صفحات اصل مقاله: 9

نویسندگان:

Fereshteh Habibi Tirtashi

Mansour Eslami

خلاصه مقاله:

Introduction: Shoe insoles are widely recommended to increase sport shoes comfort during running. However, relationship between ground reaction force frequency and perceived comfort is still unclear. The purpose of this study was to evaluate the relationship between ground reaction force frequency changes and perceived comfort during stance phase of running. Methods: 30 female students (mean age of 22 ± 1.85 year, height of 162 ± 4.71 cm and weight of 56 ± 5.59 kg) were selected. Subjects were asked to run heel- toe in a control condition (only shoes) and three different insole conditions (soft, semi rigid, rigid). To assess perceived comfort, a questionnaire was completed by the subjects in four different insoles conditions. Vertical and anterior - posterior (AP) components of ground reaction force were evaluated in frequency domain using fast furrier transformation. Pearson's correlation coefficients was used to test relationship between the force frequency changes and perceived comfort ($P < 0.05$). Results: Findings showed that there was a significant negative relationship between perceived comfort and 99.5% frequency of vertical and AP ground reaction force ($r = -0.278$, $r = -0.239$ respectively), and median frequency of AP ground reaction force ($r = -0.229$). Conclusion: Perceived comfort can be explained about 6% of variability in the 99.5% frequency power of vertical and .AP ground reaction force and median frequency of AP ground reaction force

کلمات کلیدی:

Frequency, Comfort, Ground Reaction Force, Frequency, Comfort, Ground Reaction Force

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1912522>

