

عنوان مقاله:

?How Far an Arch Support Foot Orthosis Can Affect Lower Limb Joint Angular Accelerations during Normal Gait

محل انتشار:

دوفصلنامه فناوری های پیشرفته ورزشی، دوره 4، شماره 2 (سال: 1399)

تعداد صفحات اصل مقاله: 8

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خلاصه مقاله:

The purpose of this study was to determine how far an arch support foot orthosis can affect lower limb joint angular accelerations during normal gait. In this study, sixteen male healthy volunteers were selected as participants. Subjects performed ۱۲ walking trials at a self-selected walking speed while ۳-dimensional kinematic data were collected for two conditions: shod with no orthoses, and shod with orthoses. Our results showed that the use of foot orthoses decreased the peak ankle angular acceleration during dorsiflexion ($p=0.034$). No significant difference was found in the values of knee angular accelerations between the two walking conditions ($p>0.05$). Furthermore, the subjects experienced a reduction in hip angular acceleration during extension in response to the application of foot orthoses ($p=0.027$). It seems that the use of arch support foot orthoses is effective to improve lower limb kinematics during walking and it can prevent overuse injuries in the lower extremity.

کلمات کلیدی:

foot orthosis, angular acceleration, Walking

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