

عنوان مقاله:

Comparison Three Different Backpack Designs used in college

محل انتشار:

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نویسندگان:

M Mallakzadeh - Assistant Professor

M Javidi - MS Student

Sh Rahmani

H Monshizadeh

خلاصه مقاله:

Abstract— in this study the best position of a double-strap backpack which is popular among college students against spine in comparison with two other kinds of packs which can be used by college students are investigated during static standing and walking on force plate. The Amount of Changing in forward COM due to backpack carriage is the base reference of this study to compare different conditions. There are lots of studies about the weight of backpack and its effect on spinal curvature. The purpose of this study was to find the Best position of backpack against spine via test 1 and differences between three different types of packs which can be used by college students via test 2. Twenty uninjured college students (mean age = 23) were instructed to stand on force plate then walk along the laboratory room and pass the force plate respectively. Another time they repeated the same job with backpacks (10% body weight) which are used for two different tests. These tests continued until the desired vertical ground reaction force curve was appeared. All data were measured from force plate at different time points. Results show that minimum change in COM appears when subjects wear double-strap in case which backpack is placed at the middle against spine. According to the second test it is not possible to exactly choose a kind of backpack that can be offered to all college students as a best one and it may depend on students' anatomical properties.

کلمات کلیدی:

Backpack; College Student; COM; COP

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