

Performance of women with fibromyalgia in walking up stairs while carrying a load

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Background. Fibromyalgia is a chronic disease characterized by widespread pain and other associated symptoms. It has a relevant impact on physical fitness and the ability to perform daily living tasks. The objective of the study was to analyze the step-by-step performance and the trunk tilt of women with fibromyalgia in the 10-step stair climbing test compared with healthy controls.

Methods. A cross-sectional study was carried out. Twelve women suffering from fibromyalgia and eight healthy controls were recruited from a local association. Participants were asked to climb 10 stairs without carrying a load and 10 stairs carrying a load of 5 kg in each hand. Mediolateral trunk tilt was assessed using the "Functional Assessment of Biomechanics (FAB)" wireless motion capture device, and the time between steps was assessed via weight-bearing insoles. Results.

Trunk tilt in the stair-climbing task carrying a load was significantly higher in women with fibromyalgia when compared to the healthy controls (2.31 (0.63) vs. 1.69 (0.51) respectively). The effect of carrying a load was significantly higher for women with fibromyalgia compared with healthy controls at the intermediate and final part of the task. Discussion. Trunk tilt during stair climbing while carrying a load was higher in women with FM, which could increase the risk of falling.

Additionally, women with FM experienced a higher pace slowdown as a consequence of the load, which supports the need of including specific strength and resistance training to physical therapies for this population. © Copyright 2016 Collado-Mateo et al.

Daily living

Fibromyalgia

Motor control

Postural balance

Stair ascent

Women

adult

aged

Article

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climbing

clinical article

controlled study

cross-sectional study

fall risk

female

fibromyalgia

Fibromyalgia Impact Questionnaire

human

range of motion

staircase reaching test

walking difficulty