

Impact of Fibromyalgia in the Sit-to-Stand-to-Sit Performance Compared With Healthy Controls

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Background Fibromyalgia is associated with a reduction in the ability to perform activities of daily living. Sit-to-stand-to-sit performance is one of the most common activities of daily living and often is evaluated by counting the number of repetitions of the 30-second chair-stand test. No study, however, has examined the performance over the 30 seconds of this test of female patients with fibromyalgia on a phase-by-phase basis. **Objective** To evaluate the impact of fibromyalgia on performance of the 30-second chair-stand test and to analyze how the kinematic performance changed over the 30-second test period. **Design** A cross-sectional study. **Setting** Local association of fibromyalgia. **Participants** Fifteen females with fibromyalgia and nine healthy female controls. **Intervention** Participants performed the 30-second chair-stand test while wearing a motion capture device. **Main Outcome Measure** Duration of each sit-to-stand-to-sit phase within the 30-second time limit was compared between groups using repeated measures analysis of variance. The association between duration of phases and scores from the revised version of the Fibromyalgia Impact Questionnaire was tested using bivariate correlations. **Results** The duration of impulse and sit-to-stand phases were gradually increased over the 30 seconds of the chair-stand test for women with fibromyalgia compared with healthy controls ($P = .04$ and $P = .02$, respectively). The mean duration of these 2 phases was associated with symptom duration and the function domain of the revised version of the Fibromyalgia Impact Questionnaire ($P < .05$). Also, stiffness was directly associated with the duration of the stand-up phase ($P = .04$). **Conclusion** Kinematic performance during the 30-second chair-stand test differed between women with fibromyalgia and healthy

controls. Since sit-to-stand from a chair is a common daily activity, women with fibromyalgia may require specific exercises to improve performance of this task. Level of Evidence Not applicable. ©

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