

EVALUATION OF MUSCLES USE IN PUSH STRENGTH EXERTION OF WOMEN

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Abstract

This study assessed muscle activities and force exertion capabilities to identify working postures, which would increase the risk of injuries. Fifteen female subjects exerted one-handed push forces at 26 locations in the workspace. Muscle activities in biceps, triceps, anterior deltoid, and erector spinae were measured during push force exertions. Then, the ratio of force/normalized EMG was computed and used to evaluate working postures. The results showed that push exertions at the overhead location and in the extreme reach required high forces of arm and shoulder muscles. Thus, push exertion in this posture must be avoided to prevent injuries.