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Increasing passive energy expenditure during clerical work.

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Abstract

Sitting on a therapy ball or standing may be a passive means of increasing energy expenditure throughout the workday. The purpose of this study was to determine the energy expenditure and liking of performing clerical work in various postures. Subjects included 24 men and women employed in sedentary clerical occupations. Energy expenditure was measured while word processing in three standardized postures; sitting in an office chair, sitting on a therapy ball, and standing. Adults ranked their comfort, fatigue, and liking of each posture and were asked to perform their choice of 20 min of additional clerical work in one of the postures. Energy expenditure was 4.1 kcal/h greater ($p <or= 0.05$) while performing clerical work while sitting on a therapy ball and standing than while sitting in an office chair. There was no difference in energy expenditure between the therapy ball and standing postures ($p >or= 0.48$). Subjects also liked sitting on a therapy ball as much as sitting in an office chair and liked sitting on a therapy ball more than standing ($p <or= 0.05$). More subjects chose to perform additional clerical work while seated on a therapy ball than while standing ($p = 0.03$). In conclusion, sitting on a therapy ball or standing rather than sitting in an office chair while performing clerical work increases passive energy expenditure.
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