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Effectiveness of small daily amounts of progressive resistance training for frequent neck/shoulder pain: randomised controlled trial.

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Abstract

Regular physical exercise is a cornerstone in rehabilitation programs, but adherence to comprehensive exercise remains low. This study determined the effectiveness of small daily amounts of progressive resistance training for relieving neck/shoulder pain in healthy adults with frequent symptoms; 174 women and 24 men working at least 30 h per week and with frequent neck/shoulder pain were randomly assigned to resistance training with elastic tubing for 2 or 12 minutes per day 5 times per week, or weekly information on general health (control group). Primary outcomes were changes in intensity of neck/shoulder pain (scale 0 to 10), examiner-verified tenderness of the neck/shoulder muscles (total tenderness score of 0 to 32), and isometric muscle strength at 10 weeks. Compared with the control group, neck/shoulder pain and tenderness, respectively, decreased 1.4 points (95% confidence interval -2.0 to -0.7, $p < 0.0001$) and 4.2 points (95% confidence interval -5.7 to -2.7, $p < 0.0001$) in the 2-minute group and 1.9 points (95% confidence interval -2.5 to -1.2, $p < 0.0001$) and 4.4 points (95% confidence interval -5.9 to -2.9, $p < 0.0001$) in the 12-minute group. Compared with the control group, muscle strength increased 2.0 Nm (95% confidence interval 0.5 to 3.5Nm, $p = 0.01$) in the 2-minute group and 1.7Nm (95% confidence interval 0.2 to 3.3 Nm, $p = 0.02$) in the 12-minute group. In conclusion, as little as 2 minutes of daily progressive resistance training for 10 weeks results in clinically relevant reductions of pain and tenderness in healthy adults with frequent neck/shoulder symptoms.

Trial registration: www.isrctn.org/ISRCTN60264809.

In generally healthy adults with frequent neck/shoulder muscle pain, as little as 2 minutes of daily progressive resistance training reduces pain and tenderness.