

## Exercise for osteoarthritis of the knee: a Cochrane systematic review.

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### Abstract

**OBJECTIVE:** To determine whether land-based therapeutic exercise is beneficial for people with knee osteoarthritis (OA) in terms of reduced joint pain or improved physical function and quality of life.

**METHODS:** Five electronic databases were searched, up until May 2013. Randomised clinical trials comparing some form of land-based therapeutic exercise with a non-exercise control were selected. Three teams of two review authors independently extracted data and assessed risk of bias for each study. Standardised mean differences immediately after treatment and 2-6 months after cessation of formal treatment were separately pooled using a random effects model.

**RESULTS:** In total, 54 studies were identified. Overall, 19 (35%) studies reported adequate random sequence generation, allocation concealment and adequately accounted for incomplete outcome data. However, research results may be vulnerable to selection, attrition and detection bias. Pooled results from 44 trials indicated that exercise significantly reduced pain (12 points/100; 95% CI 10 to 15) and improved physical function (10 points/100; 95% CI 8 to 13) to a moderate degree immediately after treatment, while evidence from 13 studies revealed that exercise significantly improved quality of life immediately after treatment with small effect (4 points/100; 95% CI 2 to 5). In addition, 12 studies provided 2-month to 6-month post-treatment sustainability data which showed significantly reduced knee pain (6 points/100; 95% CI 3 to 9) and 10 studies which showed improved physical function (3 points/100; 95% CI 1 to 5).

**CONCLUSIONS:** Among people with knee osteoarthritis, land-based therapeutic exercise provides short-term benefit that is sustained for at least 2-6 months after cessation of formal treatment.

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PMID: 26405113 [PubMed - in process]



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