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The effectiveness of high intensity exercise therapy for improving bone density in postmenopausal women: a systematic review and meta-analysis protocol

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ABSTRACT

The purpose of the current review is to examine the effects of high intensity exercise on bone mineral density (BMD) changes compared to moderate intensity exercise, and how the safety of exercise differs. We will cover randomized controlled trials assessing the effectiveness of high intensity exercise therapy for improving bone density in postmenopausal women. To determine the difference in effect on BMD changes at the lumbar spine and femoral neck between high intensity exercise therapy and moderate intensity exercise therapy in postmenopausal women (P: postmenopausal women, I: high intensity exercise therapy, C: moderate intensity exercise therapy, O: BMD changes at the lumbar spine and femoral neck). Six databases will be searched in this review. After screening the studies, two reviewers will evaluate the risk of bias independently using the Risk of Bias 2. To evaluate statistical heterogeneity, we will visually inspect the forest plots and calculate the I^2 statistic. Meta-analysis will be carried out with Review Manager software (RevMan 5.4), using a random-effects model. Summary of findings table will be generated.

ATTACHMENTS

[Review_protocol.pdf](#)

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KEYWORDS

high intensity exercise therapy, bone density, bone mineral density, postmenopausal women, systematic review

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