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Treatment indications for sarcopenia: A systematic review of exercise intervention effect

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Abstract

Objective: To evaluate exercise intervention efficacy for the prevention and treatment of sarcopenia in the elderly.

Methods: We conducted a systematic literature search of randomized controlled trials in the Physical Activity Guidelines Advisory Committee Report (before 2007), Pubmed, the Cochrane database, and Igaku Chuo Zasshi (January 2006 to August 2009).

Data Extraction: Two authors independently extracted relevant data. A total of 951 articles were found by search engines, and 9 studies were finally selected after a review by 2 experts. The content of these studies, especially duration, sets, periods, frequency, and intensity of exercise intervention were extracted and summarized in a results table. Five of 6 articles concluded that high-intensity resistance training significantly increased soft lean tissue and muscle mass. The remaining 3 articles indicated that moderate-intensity resistance training did not affect soft lean tissue or muscle mass.

Conclusion: This systematic review suggested that high-intensity resistance training with sufficient periods, frequency, repetitions, and sets is effective to counteract the loss of muscle mass associated with advancing age.

Key words: *Systematic review, Sarcopenia, Muscle mass, Resistance training*
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