The Effect of Progressive Resistance Training in Rheumatoid Arthritis: Increased Strength Without Changes in Energy Balance or Body Composition

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OBJECTIVES:
Eight subjects with rheumatoid arthritis (aged 25-65 years), 8 healthy young subjects (aged 22-30 years), and 8 healthy elderly subjects (aged 54-80 years) underwent 12 weeks of high intensity strength training. Six additional elderly subjects, aged 54-80 performed warm-up exercises only as a control group. Fitness, body composition, energy expenditure, function, disease activity, pain, and fatigue were measured at the beginning and at the end of the 12 weeks.

RESULTS:
All 3 training groups demonstrated similar improvements in strength compared with the change among control subjects. Subjects with rheumatoid arthritis had no change in the number of painful or swollen joints but had significant reductions in the self-reported pain score and fatigue score. They also improved their strength by 57%, improved 50-foot walking time, and improved balance and gait scores. The young exercise group increased strength by 44% and the elderly exercise group increased strength by 38%.

SUMMARY:
High-intensity strength training is feasible and safe in selected patients with well-controlled rheumatoid arthritis. It leads to significant improvements in strength, and reduction of pain & fatigue without aggravating disease activity or joint pain. Strength training can also play an important role in preventing the decline of lean body mass common among patients with rheumatoid arthritis. Programmers who have been reluctant to provide strength training opportunities for older adults with rheumatoid arthritis due to fear of injury, can carefully proceed with strength training through the pain free range of motion of arthritic joints.

KEISER PIECES USED:
Chest press, leg press, leg extension, lower back, and abdominal.

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