

Nilsson S et al.

Resistance training decreased abdominal adiposity in postmenopausal women.

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BACKGROUND

Women are at increased risk of cardiometabolic disease after the menopause. This is partly due to weight gain (an average of 10 kg between 40 and 60 years of age) and unfavourable redistribution of adipose tissue (1). The question is, to what extent does strength training actually "do something" about the increase in visceral adipose tissue?

IN SUMMARY

This study is a subanalysis of a randomised controlled trial (RCT) involving 65 postmenopausal women with vasomotor symptoms (VMS) and low physical activity. They were divided into two groups: one that received supervised strength training three times a week, and a control group with no change in physical activity. The training plan in the intervention group was as follows: All exercises were done in two sets, but with different reps: Bodyweight exercises to exhaustion and seated exercises with 8-12 repetitions. After an individual stress test by the physiotherapist at the beginning of the study, the seated exercises were set to a maximum of eight repetitions. The physiotherapist gradually increased the load, and the participant recorded the load, repetitions and type of exercise in a logbook. The following exercises were performed on the equipment Chest press, leg press, seated extension, leg curl, latissimus dorsi pulldown, leg extension, crunches and back extension.

The primary and secondary endpoints were visceral adipose tissue volume (VAT), abdominal subcutaneous adipose tissue (ASAT) and the ratio of VAT to total abdominal adipose tissue (TAAT). Measurements were made using magnetic resonance imaging (MRI). Anthropometric measurements and MRI were performed at baseline and after 15 weeks. There were no significant differences between the groups at baseline. Women who adhered to the intervention (i.e. attended at least two of the three planned training sessions per week) showed a significant reduction in ASAT ($p = 0.006$), VAT ($p = 0.002$), TAAT ($p = 0.003$) and fat percentage ($p < 0.001$) over time compared to women in the control group. Anthropometric parameters did not differ between groups at 15 weeks. The authors conclude that 15 weeks of resistance training may help midlife women counteract the adverse redistribution of adipose tissue associated with the menopause.

COMMENTARY

For many menopausal women, the perceived uncontrolled weight gain and increase in abdominal girth is a major burden. Many have lost hope that "the figure" can actually be improved by targeted training. All these women can now be reassured! As always, more research is needed to determine the long-term effects of strength training and to define the optimal training programme.

REFERENZEN

- [1] Greendale GA, Sternfeld B, Huang M, Han W, Karvonen-Gutierrez C, Ruppert K, Cauley JA, Finkelstein JS, Jiang SF, Karlamangla AS

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