

How interval training affects 'belly fat' in obese 70-year-olds

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By today's estimates, one-third of adults aged 65 or older are obese. This growing obesity trend, along with the decrease in our level of physical activity as we age, seriously raises our risk of diseases and death.

We know that aging leads to a gradual decrease in lean [body](#) mass (LBM). Put simply, LBM is the entire weight of your body minus the weight associated with [fat tissue](#). As we age, fat distribution in the body can shift, and often increases in the belly region. This is a health concern for [older adults](#), because so-called "belly fat" (also known as "central obesity") is associated with a greater risk for heart disease than general obesity.

Now, a team of researchers have designed a study to learn more about the effects of a 10-week, easy-to-perform, personalized, progressive vigorous-intensity interval training among 70-year-olds with "belly fat." Their study was published in the *Journal of the American Geriatrics Society*.

The researchers recruited participants between January 2018 and February 2018 from the Healthy Aging Initiative (HAI), an ongoing study conducted in northern Sweden. In the HAI, all of the 70-year-olds in the area were invited to participate in a free health survey. To date, 68 percent of the eligible population agreed to participate.

The participants who were assigned to the [exercise group](#) participated in a 10-week-long progressive exercise program starting in February 2018.

The program consisted of short, supervised [training sessions](#), performed in a group setting, three times per week for 10 weeks.

The 36 participants were taught to perform body-weight-training exercises with minimal use of equipment, at first for 18 minutes, alternating exercise with rest periods in a ratio of 40/20 (for example, 40 seconds of work and then 20 seconds of rest). The participants worked up to a 36-minute training period as their training volume gradually increased.

Thirty-six other participants maintained their daily living and routines throughout the study and served as a control group.

The participants were about 70 years of age, and about an equal number of men and women participated.

Participants in the exercise group decreased their fat mass by nearly two pounds and gained about one pound of lean body weight compared to the control group.

The researchers concluded that 10 weeks of vigorous intensity interval training improved body composition in older adults with belly fat. Those in the exercise group saw a nearly tripled decrease in their total fat mass compared with participants in the [control group](#). The exercise group also saw positive effects on total [lean body mass](#). The "do-ability" of the exercise program was reflected in the high attendance rates (89 percent) for the [training](#) sessions.

Interestingly, however, the [exercise](#) significantly decreased belly fat in the men but not the women who participated. It's likely that more research is needed to explain this finding in greater detail.

Overall, the researchers suggested that the easy-to-perform exercises,

designed to fit a home-environment without the need for expensive gym equipment, may be generalized to other settings and groups of people.

More information: Marcel Ballin et al, Effects of Interval Training on Visceral Adipose Tissue in Centrally Obese 70-Year-Old Individuals: A Randomized Controlled Trial, *Journal of the American Geriatrics Society* (2019). [DOI: 10.1111/jgs.15919](https://doi.org/10.1111/jgs.15919)

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