

# Overweight, obese women improve quality of life with 10 to 30 minutes of exercise

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Sedentary, overweight or obese women can improve their quality of life by exercising as little as 10 to 30 minutes a day, researchers reported at the American Heart Association's Conference on Nutrition, Physical Activity and Metabolism.

The Dose Response to Exercise in postmenopausal Women (DREW) study, first reported in 2007, was the largest randomized, controlled trial examining the role of exercise in postmenopausal women. These secondary results focus on quality of life among 430 women divided into four groups: three groups exercising at various levels and one control group that did not exercise.

“While the women who participated in the highest exercise group saw the greatest improvements in most quality of life scales, the women in the lowest exercise group also saw improvements,” said Angela Thompson, M.S.P.H., co-author of the study and research associate at Pennington Biomedical Research Center in Baton Rouge, La. “The public health message is tremendous, because it provides further support for the notion that even if someone cannot exercise an hour or more daily, getting out and exercising 10 to 30 minutes per day is beneficial, too.”

All participants in the exercise groups reported a statistically significant improvement in social functioning compared to those in the control group of women who didn't exercise. However, women who participated in more exercise, from 135 to 150 minutes a week, also showed

significant improvements in general health, vitality and mental health.

The women who exercised more also improved in physical functioning, role limitations in work or other activities due to physical problems and role limitations due to emotional problems, the researchers said. None of the women reported a statistically significant improvement in pain.

After exercising six months, the women improved almost 7 percent in physical function and general health, 16.6 percent in vitality, 11.5 percent in performing work or other activities, 11.6 percent in emotional health and more than 5 percent in social functioning.

“This has not been shown in a large controlled study before,” said Timothy S. Church, M.D., principal investigator and research director at Pennington Biomedical Research Center. “This is the first large controlled study of postmenopausal women to look at the effect of exercise training on the quality of life. It shows that exercise gives you energy and makes you feel better.”

This study included 430 sedentary women, average age 57, who were overweight or obese. Researchers randomly assigned women to one of three exercise groups, including those expending about four kilocalories per kilogram (kcal/kg) of energy each week amounting to 70 minutes a week; 8 kcal/kg/week amounting to 135 minutes per week; or 12 kcal/kg/week amounting to 190 minutes a week. Most of the exercise was divided into three or four sessions a week. When not in organized exercise, these women were fitted with pedometers. A fourth group had no planned exercise and served as controls.

Researchers measured quality of life before and after the six-month exercise intervention with the Medical Outcomes Study Short-Form 36 Health Status Survey. The scores were adjusted for ethnicity, age, employment status, smoking, antidepressant use and marital status.

To determine physical health, women were asked about physical functioning such as what types of physical activities they participated in from carrying groceries to climbing stairs to walking a mile; limitations in physical activity; pain; and their own assessment of their health.

Researchers determined mental health by having the women do a self-assessment of vitality, social-time, ability to accomplish what they set out to do, and whether they were nervous, down in the dumps, peaceful or happy.

Though the women in the study were overweight or obese, sedentary and postmenopausal, they were fairly healthy and reported a fairly high quality of life at baseline.

“At baseline the average vitality and role emotional scores for these women were lower than for the U.S. population,” Thompson said. “At follow-up, the average vitality and role emotional scores were higher than the average U.S. population.”

The data showed a positive association between six months of exercise and changes in quality of life. “This association was strongest among the group who received the highest dose of exercise, which was 150 percent of the National Institute of Health’s Consensus Development recommended physical activity dose,” Thompson said. “Some of the women did lose weight over the course of the study but the self-reported improvement in quality of life was not dependent on weight loss.”

Many of the women grew up when females didn’t participate in sports and most had never been physically active before. The research program included a team to teach the women how to exercise.

“Walking a little bit every day will help tremendously,” Thompson said. “Walk with your mother, a neighbor or friend. A little physical activity

will improve your quality of life.”

Researchers also advised older women to join gyms that have specific sections for women or that are targeted at women.

“Physical activity not only provides a better quality of life but better balance, stronger bones and confidence in walking,” Church said. “Start exercising for small amounts of time and then gradually work up to 150 minutes a week. A little is better than nothing.”

Source: American Heart Association

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