

# Obese Women With Diabetes May Need Different Workouts Than Men

## **Small study found specific exercise program did less to improve their health**

(HealthDay News) -- Certain exercises that benefit the hearts of obese men with type 2 diabetes may not help women with the same health issues, according to a small new study.

The findings could help researchers and health care professionals develop targeted exercise routines for these women, the study authors said.

The investigators examined the cardiovascular responses -- such as heart rate and blood pressure -- of about 75 obese men and women with diabetes. These responses were measured using an isometric handgrip test, which involves continually squeezing an object for a few minutes.

The participants did the handgrip test before and after they completed a 16-week walking program. Men showed improvement in their cardiovascular responses after completing the walking program, but women did not.

"What this research highlights, at least using the handgrip test, is that the advantages we think exercise is going to give individuals may not be the same across genders, particularly for those who have type 2 diabetes," Jill Kanaley, a professor in the department of nutrition and exercise physiology at the University of Missouri, said in a school news release.

"This is a concern because there are high [death] rates with type 2 diabetes, especially for women. We're trying to find successful interventions to help these individuals, and we keep assuming that exercise will do the trick -- we think when we tell people to 'go train,' regardless of gender, everyone will get the same results. Our research indicates certain exercises may not be enough for women, as our walking program did not show positive improvements for them."

Longer-duration or higher-intensity exercise might benefit obese women with type 2 diabetes, Kanaley suggested. She also said more emphasis should be placed on how long it takes heart function to return to normal after a workout, as well as how fast the heart beats during a workout.

"A lot of people focus on how high individuals' heart rates get during exercise, but their recovery rates also should be monitored," Kanaley said. "When you exercise, you want your blood pressure to rise, but you don't want it to get too high. Your blood pressure should return to normal relatively quickly after you stop exercise. In our study, the recovery rate for women was not as rapid as for men. After the men trained, they got an even better recovery time, whereas women's time stayed about the same."

The study was published in a recent issue of the journal *Metabolism*.