

## **Aerobic, Weight Training Combo Best Against Diabetes**

*Exercise is always good, but combining two approaches brings better results, study finds*

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MONDAY, Sept. 17 (HealthDay News) -- Most people know that exercise can help beat type 2 diabetes, but one type of fitness regimen might work best, a new study shows.

Specifically, workouts that combine aerobic and resistance training exercises appear better at controlling blood sugar than either type of activity alone, researchers say.

The finding is new, because "most other studies have looked at just one kind of exercise, either aerobic or resistance," noted lead researcher Dr. Ronald J. Sigal, an associate professor of medicine and cardiac sciences at the University of Calgary, in Alberta, Canada.

The study is published in the Sept. 18 issue of the *Annals of Internal Medicine*.

As part of their research, Sigal's team evaluated 251 adults, ages 39 to 70, all with type 2 diabetes and not regular exercisers at the start of the study.

The participants were assigned to one of four groups: those who did 45 minutes of aerobic training three times a week, those who did 45 minutes of resistance (i.e., weight) training three times a week, those who did 45 minutes each of both forms of exercise three times a week, and those who did no exercise at all.

The aerobic group worked out on a treadmill or a bike at the gym; memberships were provided. The resistance group also worked out at the gym, with memberships provided, doing seven different exercises on weight machines.

Sigal's team evaluated changes in A1c values -- a measurement reflecting blood sugar concentrations -- over the previous two to three months. A1c is expressed as a percentage. A decline of 1.0 percent in A1c value would be linked to a 15 percent to 20 percent decrease in risk of heart attack or stroke, the researchers explained, and a 25 percent to 40 percent decline in risk of complications linked to diabetes, such as eye disease or kidney disease.

As expected, blood sugar control improved in all the exercise groups. In those who did either aerobic or resistance, the A1c value declined by about 0.5 percent compared to the non-exercisers. Those who did both kinds of exercise had double that level of success, with their A1c value dropping by 0.97 percent compared to the non-exercising group. Non-exercisers experienced no change in their A1c values over the 26-week study.

The bottom line: "There is additional value to doing both resistance and aerobic exercise," according to Sigal.

He said the decrease of nearly one percent of A1c seen in the study "translates to a 15 to 20 percent reduction in risk of heart attack or stroke and a 25 to 40 percent reduced risk of other complications, such as retinopathy," an eye problem related to diabetes.

[Read more of "Aerobic, Weight Training Combo Best Against Diabetes" and discuss it on the IHRSAWellness Report.](#)