

Resistance exercise offers more prolonged glycemic control

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For patients with type 1 diabetes, resistance exercise is associated with a smaller initial decline in blood glucose compared with aerobic exercise, but offers a more prolonged reduction in post-exercise glycemia, according to research published online Nov. 19 in *Diabetes Care*.

(HealthDay)—For patients with type 1 diabetes, resistance exercise is associated with a smaller initial decline in blood glucose compared with aerobic exercise, but offers a more prolonged reduction in post-exercise glycemia, according to research published online Nov. 19 in *Diabetes Care*.

Jane E. Yardley, Ph.D., of the University of Ottawa in Canada, and colleagues measured the impact of resistance exercise on glycemia during exercise and in the subsequent 24 hours and compared it to that of aerobic or no exercise in 12 adults with type 1 diabetes.

The researchers observed a significant decrease in [plasma glucose](#) during resistance exercise (from 8.4 ± 2.7 to 6.8 ± 2.3 mmol/L) and aerobic exercise (from 9.2 ± 3.4 to 5.8 ± 2.0 mmol/L), but not during the no-exercise control session. [Glucose levels](#) did not change significantly during recovery after resistance exercise, but increased significantly after aerobic exercise (by 2.2 ± 0.6 mmol/L). From

4.5 to 6.0 hours after resistance exercise, the mean interstitial glucose was lower compared with after aerobic exercise.

"Resistance exercise causes less initial decline in blood glucose during the activity but is associated with more prolonged reductions in post-exercise glycemia than aerobic exercise," the authors write. "This might account for [hemoglobin A1c](#) reductions found in studies of [resistance exercise](#) but not aerobic exercise in type 1 diabetes."

Several authors disclosed financial ties to the pharmaceutical industry.

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