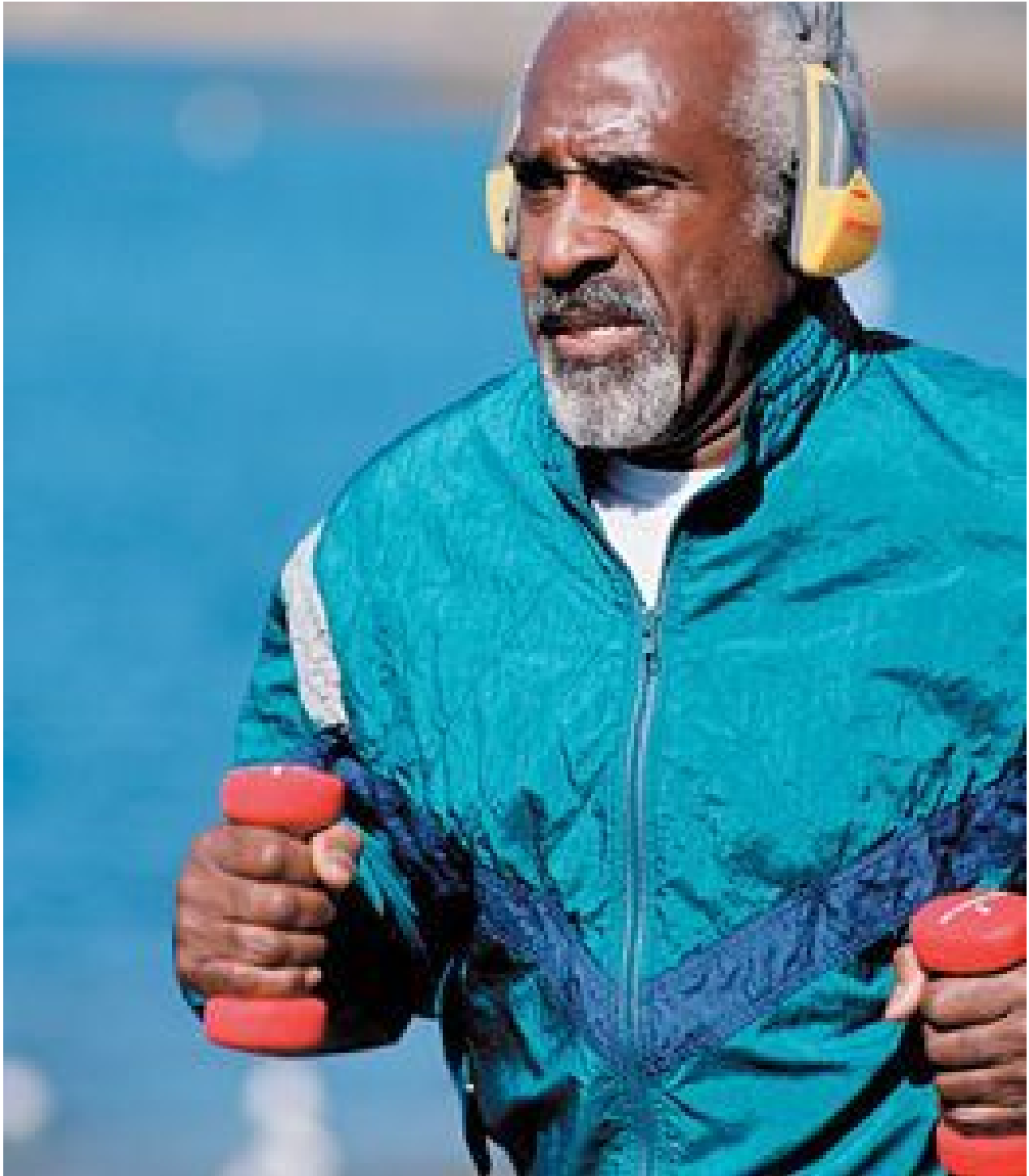


# Weight Training Reduces the Risk of Type 2 Diabetes

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A study published in the Aug. 6, 2012 issue of *Archives of Internal Medicine* suggests that men who perform weight training for an average of 150 minutes per week reduce their risk of [type 2 diabetes](#) by 34 percent. This finding is particularly interesting in that generally, we think of aerobic (endurance) exercise as an important intervention to prevent and treat diabetes. The study by A. Grontved and fellow researchers suggests that the addition of weight training to a healthy diet and aerobic exercise plan may offer additional protection against the development of type 2 diabetes.

Researchers collected data on 32,002 men enrolled in the Health Professionals Follow-Up Study from 1990-2008. During that time, there were 2,278 new cases of type 2 diabetes during 508,332 person-years of follow-up. In their evaluation, the researchers noted that while weight training reduced diabetes risk by 34 percent, men performing 150 minutes per week, on average, of aerobic exercise experienced a 52 percent lower risk of developing type 2 diabetes. Moreover, men who performed weight training *and* aerobic exercise, at the above-noted threshold levels (150 minutes / week), showed the lowest risk of developing type 2 diabetes, (59 percent reduced risk) compared to those engaged in only aerobic or only weight training programs.



Weight training may reduce the risk of type 2 diabetes by helping to build lean mass. More lean mass means that muscle tissue will extract [more glucose](#) from the bloodstream to keep itself alive from moment to moment. Muscle tissue has a fast resting metabolic rate. Thus, more lean muscle mass translates into more calories (including glucose or blood sugar) burned per minute, even when you are at rest. This helps to keep blood sugar lower.

The other benefit is that weight-lifting burns many carbohydrate calories stored within our muscles as glycogen. Thus, after a weight training session, many of the carbohydrate calories consumed during the day are used to rebuild the muscles' glycogen fuel tank in preparation for the next bout of weight training. This effect also helps clear blood sugar (glucose) from the bloodstream, lowering blood sugar and reducing the risk of type 2 diabetes.

## Reference

1. Grontved A, Rimm EB, Willett WC, Andersen LB, Hu FB. A prospective study of weight training and risk of type 2 diabetes mellitus in men. *Arch Intern Med*, Aug. 6, 2012.
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Dr. Meschino outlines a beginner, intermediate and advanced weight-training program in his book *The Meschino Optimal Living Program*. You and your patients can download a free copy at [www.meschinohealth.com/books/healthy\\_livingcenter](http://www.meschinohealth.com/books/healthy_livingcenter).

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