



Exercise can help curb diabetes

Why is physical activity so important for people with diabetes?

The reason is simple: Exercise can help control blood sugar — and that's the name of the game with diabetes.

When you use your muscles, they need to get energy from somewhere. Most of the time, that energy comes from glucose, which is the sugar running through your bloodstream after you eat. If your muscles use blood sugar for energy, then, obviously, the level of sugar in your blood drops. But the effects can last far beyond the time frame of your workout.

For people with type 2 diabetes, regular exercise appears to increase the insulin sensitivity of the body's cells, especially muscle cells. That means cells are better able to uptake glucose from the bloodstream, and they require less insulin to do so. It's not uncommon for people with diabetes to find that they can reduce, and sometimes eliminate, their glucose-lowering medication when they follow a healthy diet and get regular exercise.

In addition, several studies indicate that moderate levels of physical activity, in combination with losing weight, could prevent or delay the onset of type 2 diabetes. That's a huge incentive for millions of Americans whose bodies don't use glucose normally. They may be on the brink of developing diabetes and, eventually, the health complications that result.

But anyone with diabetes must contact their doctor before starting an exercise regimen, because in some cases, you'll need to take some

precautions. For example, if your eyes suffer from diabetic retinopathy, strenuous activity such as jogging or weight lifting could cause bleeding or allow the retina to detach. And if your feet have nerve damage, a common consequence of diabetes, be sure to visually check for blisters or other foot problems after exercise, and treat them accordingly.

If you take insulin or medications that can cause low blood sugar, test your blood glucose a half-hour before and again immediately before exercising to see if your blood sugar level is stable, rising or falling. If your blood sugar is:

- Less than 100 milligrams per deciliter (mg/dL), your blood sugar may be too low to exercise safely.
- 100 to 250 mg/dL, it's generally considered safe to exercise.
- 250 mg/dL or higher, test your urine for ketones — substances that accumulate when your body can't use blood glucose for fuel. Don't exercise if you have a high level of ketones.
- 300 mg/dL or higher, it's too high to consider exercising.

Check your blood glucose after exercise, too; if it's too low, eat some carbs to prevent hypoglycemia.

For details, check MedlinePlus from the National Library of Medicine and National Institutes of Health, at <http://medlineplus.gov/diabetes>.

Chow Line is a service of Ohio State University Extension and the Ohio Agricultural Research and Development Center. Send questions to Chow Line, c/o Martha Filipic, 2021 Coffey Road, Columbus, OH, 43210-1044, or filipic.3@cfaes.osu.edu.



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By Martha Filipic
(614) 292-9833
filipic.3@cfaes.osu.edu

Editor:

This column was reviewed by Carla Miller, associate professor of human nutrition, and Jackie Buell, director of sports nutrition, both in the Department of Human Nutrition, College of Education and Human Ecology.

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**Section of Communications
and Technology
News and Media Relations**
2021 Coffey Road
Columbus, OH 43210-1044
(614) 292-2011

208 Research Services
Building
1680 Madison Ave.
Wooster, OH 44691-4096
(330) 263-3780

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