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ASK THE DOCTOR

About Supplements for Diabetes and Olfactory Loss, by Edward Rosick DO

Q: *I'm a 50-year-old, somewhat overweight female. At my last checkup, my doctor told me I have type II diabetes and immediately put me on two different medications to bring my blood sugar down. The medications are not working that well and I'm afraid the doctor is going to put me on insulin shots. Are there any supplements I can take to help bring my blood sugar down?*



A: Your doctor is correct to be concerned about type II diabetes. This form of diabetes, in which the body's cells become "resistant" to the effects of insulin produced in the pancreas, is thought to affect at least 16 million Americans, and its incidence is increasing at an alarming rate. This increase parallels the rising rate of obesity in the US, and for good reason: both type II diabetes and obesity can be thought of as 'lifestyle' diseases. Both health conditions are brought about and exacerbated by lifestyle choices, such as eating a high-calorie diet and not exercising regularly. Fortunately, behavioral changes and supplement use can help people avoid the occurrence, or greatly lessen the consequences of, type II diabetes.



If possible, the first step in the prevention and management of type II diabetes is instituting an exercise program. Multiple studies show that a daily, 30-minute exercise regimen, even one that does not lead to significant weight loss, can decrease the risk of diabetes. Exercise programs in which weight loss is achieved are even more efficacious in warding off diabetes and decreasing its potential health risks, such as heart disease, nerve damage, blindness, and impotence.

For those who cannot exercise or want to reduce their reliance on conventional (and expensive) prescription medication, research shows that a variety of safe, natural substances can successfully combat type II diabetes. Vitamin E, which has proven to be effective for a variety of disease states, has been shown to be useful in safely lowering blood sugar levels.^{1,2} Chromium, an essential mineral that is required for normal carbohydrate and lipid metabolism, was shown in a rigorous, double-blind, placebo-controlled trial to safely and effectively decrease blood sugar as well as cholesterol levels in patients with type II diabetes.³ Acetyl-L-carnitine, a supplement that is known to positively influence free fatty acid and glucose metabolism, has been shown to enhance cellular glucose uptake and help prevent nerve damage caused by diabetes.^{4,5}

Finally, alpha-lipoic acid, a safe and powerful antioxidant that functions as a coenzyme in carbohydrate metabolism, has been used for decades in Germany to prevent and treat diabetes-induced nerve damage. A recent double-blind, placebo-controlled study of 120 patients with diabetes-induced nerve damage found that alpha-lipoic acid safely and effectively improved both the signs and symptoms of nerve damage when compared to placebo.⁶ A further discussion of these and other useful supplements for type II diabetes can be found in Life Extension's *Disease Prevention and Treatment* book.

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Q: *I'm a 72-year-old man in very good overall physical and mental health. I take a multivitamin each day, watch my diet, and swim regularly. In the past year or so, however, I've noticed that I've started to lose my sense of smell. I told my doctor about this and he said that it was just a part of growing old. Are there any vitamins or supplements I can take to help restore my sense of smell? My doctor certainly wasn't aware of any.*

A: Olfaction is the ability to smell. A complete loss of olfaction is known as “anosmia,” while diminished olfaction is referred to as “hyposmia.” Anosmia is a surprisingly common condition that affects millions of Americans, especially the elderly. People can lose their sense of smell for a variety of reasons, including infections, head trauma, and damage to the nerves that convey the sense of taste and smell. A significant number of people, however, lose their sense of smell for no known reason. Anosmia and hyposmia can significantly diminish a person's quality of life. While most people probably do not think about their sense of smell all that much, imagine how dull life would be if we were not able to smell the first flowers of spring or the aroma of a favorite meal. Moreover, sense of smell and sense of taste are intimately related—lose your sense of smell and your sense of taste is extremely diminished.



Of the five basic senses, the sense of smell is the least understood by scientists. We do know that the human nose contains about 5 million olfactory cells that can detect nearly 10,000 distinct scents. While this may seem amazing, it is nothing compared to a dog's sense of smell—with 200 million olfactory cells, dogs are thought to be able to detect scents 40 times better than humans. Both human and dog olfactory cells are thought to work through the actions of metal ions, particularly zinc and copper. Zinc supplementation, at doses of 30-50 mg a day, can often help someone whose sense of smell has become diminished.

Another supplement shown in scientific studies to improve a person's sense of smell is alpha-lipoic acid. This versatile and valuable supplement (which has also been shown to control blood sugar and protect DNA from free-radical damage) was examined by German researchers who were seeking safe, natural supplements to help people who suffer from anosmia or hyposmia.* The researchers monitored a group of 23 middle-aged to elderly individuals whose sense of smell had been diminished or lost entirely. After taking 600 mg of alpha-lipoic acid daily for an average of 4.5 months, a majority of the patients—those suffering from both a diminished sense of smell and a total loss of smell—reported statistically significant improvement. While further studies are needed, alpha-lipoic acid, with its excellent safety record, should certainly be considered by anyone whose sense of smell is on the decline.

Reference

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