

FOCUS ON FITNESS



STRIKE THE PERFECT POSE

Research Shows Yoga Can Stabilize Blood Sugar in Diabetes Patients

By Jennifer Van Pelt, MA

Author's Note: This article is the first in a three-part series on the benefits of yoga. I'll discuss how yoga can improve the health of type 2 diabetes patients and senior citizens, and how clients can practice this centuries-old discipline to promote weight loss and improve overall health.

Guidelines from the American Diabetes Association recommend type 2 diabetes patients engage in at least 150 minutes of aerobic exercise per week, incorporating strength training during this time. Research shows these recommendations are the ideal fitness program for blood sugar control and weight management. But as you know, many clients find it difficult to begin and maintain such a regimen at this intensity and as a result they often give up.

The good news is that diabetes patients have an alternative: They can practice yoga. Despite the fact researchers have been studying the health benefits of yoga in diabetes patients for decades, only now is yoga being proposed as an important part of a diabetes exercise program.

Yoga's Benefits

Practicing yoga can benefit your clients both physically and mentally. Yoga can decrease fasting blood glucose levels, lower blood pressure, improve cholesterol and triglycerides, reduce the need for diabetes medication, and lower stress hormone levels.¹ What's more, yoga increases flexibility and strength, improves balance and immune function, precipitates weight

loss, relieves stress, and alleviates chronic pain.¹

Research has suggested that yoga's contribution to stress reduction actually may moderate the impact of diabetes. High levels of stress hormones have been shown to raise blood glucose levels, promote overeating, lead to the accumulation of intra-abdominal fat, contribute to insulin resistance, and boost heart attack risk. By reducing stress hormone levels, yoga can minimize these side effects.¹

While the exact physiological mechanisms contributing to yoga's benefits for diabetes aren't fully understood, Eastern medicine philosophy states that certain yoga poses stimulate and massage internal organs, including the pancreas, which produces insulin. Yoga also

has been shown to normalize endocrine gland function and digestion.¹

In the last few years, new clinical studies and reviews have been published on yoga and diabetes, providing more evidence of its benefits. The most recent study found that three months of yoga along with standard care significantly reduced BMI and improved glycemic control compared with standard care alone.² Another study reported that, after 40 days of yoga, adults with type 2 diabetes experienced significant reductions in BMI and anxiety as well as improved general well-being.³ Adults at high risk for type 2 diabetes experienced improvements in weight, blood pressure, insulin control, and triglycerides following three months of yoga compared with a group of patients receiving only diabetes education materials.⁴

Choosing the Right Yoga Class

Diabetes patients interested in practicing yoga should look for beginners' classes taught by instructors who are trained to deal with participants' medical conditions and movement limitations. Certain hospitals offer yoga classes that address specific medical issues. And since yoga therapy is a growing subspecialty among yoga teachers, classes or individualized instruction geared toward people with diabetes may be available in some areas. For clients who prefer to do yoga at home, there are several beginner/healing yoga DVDs available for purchase, or they can simply seek online yoga classes for beginners.

Practicing any type of yoga that's appropriate for a person's fitness level for 30 to 45 minutes three days per week likely will provide benefits. However, there are yoga poses and pose sequences that may be particularly beneficial for type 2 diabetes patients. Here are some basic yoga poses that even an inflexible individual can practice with minor modifications:

- **Seated spinal twist** massages the kidneys, pancreas, stomach, gallbladder, liver, and small intestines, stimulating digestion and regulating insulin, bile, and adrenaline secretion.
- **Seated forward bend** promotes the functioning of internal organs, including the kidneys, pancreas, and liver.
- **Child's pose** regulates circulation, promotes relaxation, and relieves fatigue and stress.
- **Locust pose** helps digestion and supports the pancreas and liver.
- **Standing balance poses, shoulder stand, plough, and the sun salutation series** stimulate endocrine glands and

TAKE PRECAUTIONS

While yoga can offer many health benefits for diabetes patients, it requires participants to take the following precautions before starting a class:¹

- **Closely monitor blood sugar.** If clients are taking diabetes medications, they should diligently monitor their blood glucose levels for several weeks, or even months, to watch for fluctuations in response to new exercise. Some studies have shown that regular yoga practice can result in a decreased need for diabetes medications. Clients can consult their physicians to determine whether their medication dose should be reduced.
- **Avoid fasting before exercise.** For healthy people, it's recommended they avoid eating several hours before practicing yoga. However, this may not be feasible or medically safe for diabetes patients due to their risk of hypoglycemia.
- **Urge clients to visit their ophthalmologist.** Retinal disorders such as diabetic retinopathy are common in diabetes patients. Most yoga classes include inversions (poses in which the head is lower than the heart), that can raise ocular pressure. Even simple inversions, like a forward fold, may be dangerous. So suggest they consult their ophthalmologist before beginning a yoga class to determine whether they should do such poses.
- **Protect your feet.** Standing balance poses may be uncomfortable and can increase the risk of falls for diabetes patients with peripheral neuropathy, vascular problems, or foot issues. Suggest they wear specially designed athletic shoes that will stimulate and protect their feet.
- **Steer clear of extreme heat.** Clients shouldn't practice Bikram and Baptiste yoga (also called hot yoga). These yoga styles are more vigorous and are performed in rooms that are 100-plus degrees. The intensity and heat can contribute to diabetic ketoacidosis, affect the absorption of injected insulin, and cause dehydration, which exacerbates hypoglycemia.

— JVP

regulate metabolism. They require a higher level of fitness, however, and without certain modifications and proper instruction aren't appropriate for beginners or those who have physical limitations .

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