# **Acupuncture for Diabetes**

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For people with diabetes, the needle-based therapy known as acupuncture may offer a number of health benefits. Some research shows that acupuncture may help control diabetes by treating insulin resistance, while other studies indicate that this long-practiced form of traditional Chinese medicine may help protect against certain complications commonly linked to diabetes.

# Acupuncture and Insulin Resistance

Insulin resistance occurs when your body fails to use insulin effectively. A hormone produced by the pancreas, insulin is responsible for helping your cells take in glucose (i.e., blood sugar) and use it for energy. In cases of insulin resistance, the cells have trouble absorbing glucose, which causes glucose to build up in the bloodstream and reach the abnormally high levels associated with diabetes.

A hallmark of both diabetes and heart disease, insulin resistance appears to result from factors like excess weight, lack of physical activity, sleep problems, and smoking. While lifestyle changes such as following a healthy diet and exercising regularly are essential for fighting insulin resistance, some proponents suggest that acupuncture can further help improve insulin sensitivity (a measure of the body's ability to use insulin efficiently).

Although research on acupuncture's effectiveness in the treatment of insulin resistance is fairly limited, there's some evidence that it may help treat this condition and enhance health in diabetes patients.

In a 2010 report from *Diabetes, Obesity & Metabolism*, for instance, scientists analyzed previously published research on acupuncture and insulin resistance and found some preliminary evidence that the therapy has the potential to improve insulin sensitivity.

However, the report's authors also note that more research is needed to determine whether acupuncture might serve as an effective treatment for insulin resistance.

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#### Acupuncture and Diabetic Neuropathy

As many as 70 percent of people with diabetes struggle with diabetic neuropathies, a class of disorders marked by damage to the nerves.

Thought to develop as a result of poor blood sugar control, diabetic neuropathies include peripheral neuropathy (a condition characterized by pain or loss of feeling in the toes, feet, legs, hands, and arms) and autonomic neuropathy (a disorder that impairs the function of the digestive system, bowels, and bladder and may also affect the heart, lungs, and eyes).

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Some preliminary research suggests that acupuncture shows promise in the treatment of diabetic peripheral neuropathy. This research includes a pilot study published in *Acupuncture in Medicine* in 2014, for which 45 people with diabetic peripheral neuropathy were assigned to 10 weeks of treatment with either real acupuncture or sham acupuncture (in which practitioners did not focus on points believed to be connected to the body's energy pathways).

Over the course of the 10-week treatment period, small improvements were seen in a number of symptoms (including lower limb pain) and in blood pressure among patients treated with real acupuncture. On the other hand, little change was seen in those receiving sham acupuncture.

It should be noted that a research review published in the journal *PLoS One* in 2013 found that no firm conclusions can be drawn as to the acupuncture's effectiveness in the treatment of diabetic peripheral neuropathy.

For this review, investigators sized up 25 previously published clinical trials (with a total of 1,649 participants) and determined that acupuncture improved symptoms of diabetic peripheral neuropathy more effectively compared to several other treatments (such as the use of vitamins B1 and <u>vitamin B12</u>). However, the report's authors caution that the quality of the reviewed trials was generally poor.

# Using Acupuncture for Diabetes Control

Although acupuncture is generally considered safe when provided by a qualified practitioner, using this therapy as a substitute for standard care in the treatment of diabetes may have harmful consequences. Before using any type of alternative medicine (including acupuncture) in the treatment of diabetes, make sure to consult your physician for guidance in incorporating the therapy into your disease management plan.

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