

*According to the 2011 National Diabetes Fact Sheet (released Jan. 2011), 25.8 million people are diabetic and 79 million people are pre-diabetic. American Diabetes Association explains in their website, "Before people develop type 2 diabetes, they almost always have 'prediabetes': blood glucose levels that are higher than normal but not yet high enough to be diagnosed as diabetes. Recent research has shown that some long-term damage to the body, especially the heart and circulatory system may already be occurring during prediabetes."*  
- <http://www.diabetes.org>

## Green Tea Antioxidants Diabetes

**The Pennsylvania State University** published another research result on green tea and blood sugar level in "Molecular Nutrition Food Research" in December, 2013. In this study, they found mice on a high-fat diet increased health with green tea combined with voluntary exercise. The mice showed an average 37% abdominal fat mass reduction, a 17% reduction in fasting blood glucose level, a 65% decrease in plasma insulin level, and a 65% reduction in insulin resistance. All are substantial improvements related to diabetic health.

The group of mice that exercised but no green tea intake showed less significant changes in these markers and health.

The researcher said, "The changes in body weight and body fat may result from increased fat metabolism and decreased fat synthesis. Green tea seems to modulate genes related to energy metabolism."

This study was conducted in the absence of caffeine. Researchers eliminated caffeine from tea because they did not want the caffeine's stimulatory effect to blur the results. This is great news since many people prefer less caffeine lifestyle.

A recent analysis of 11 human trials with green tea antioxidants reported a 1.31 kilogram average body weight loss in the group compared to the group without green tea antioxidants.

*reference: [news.psu.edu](http://news.psu.edu)*

**The Pennsylvania State University** announced drinking green tea with starchy food may help lower blood sugar spikes. The food scientists say, "If you have green tea with your bagel for breakfast, for example, it may reduce the spike in blood glucose levels that you would normally get from that food."

According to the food scientists, EGCG, an antioxidant found in green tea, and corn starch were given to two groups of mice and "the spike in blood glucose level is about 50 percent lower than the increase in the blood glucose level of mice that were not fed EGCG." For humans, this may mean that green tea could help them control the typical blood sugar increases that are brought on when they eat starchy foods, like breads and bagels. The EGCG had no significant effect on blood sugar spikes in mice that were fed glucose or maltose, according to the researchers. If the mechanism holds in humans, people who want to limit the blood sugar spike should skip adding sugar to their cup of green tea to enjoy the effect that the green tea will have on limiting the rise in blood glucose level.

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**According to a study done in Japan**, people who are diagnosed as "prediabetes" and drank more than 7 cups of green tea improved blood sugar level. This result suggests green tea antioxidants prevents or delays the disease.\*

57 million Americans over 20 years old have prediabetes, higher blood sugar level than normal but not high enough yet to indicate diabetes. Drinking green tea helps to keep blood sugar level under control.

In this study, prediabetic people were tested for their HbA1c to see their blood sugar level change. An HbA1c of 6% or less is normal, over 6.1% is prediabetes, and over 6.5% is diabetes. The patients' HbA1c was 6.2%, prediabetes. They were divided in 2 groups. One group was given 7 cups of green tea a day, and the other was not. After 2 months, the HbA1c of the patients given green tea was improved to 5.9%, whereas the other group's HbA1c didn't change. Then, the other group was given green tea for the next 2 months. The group's HbA1c also improved to 5.9%.

Studies have shown green tea prevents diabetes and this study suggests green tea actually controls blood sugar level that is already high.

Resource: "*Significance of nutrients and green tea intake to prevent lifestyle-related diseases in some communities in Shizuoka*" Yoko Fukino, University of Shizuoka, Japan

\*Note: The "cups" of green tea in the study were "brewed" tea. [Click here](#) to find the significant nutritional advantages of Edible Green® over brewed tea.