

Momordica charantia (bitter melon)

Food Sci Biotechnol. 2023 Apr; 32(5): 697–704.

Published online 2022 Dec 14. doi: [10.1007/s10068-022-01214-9](https://doi.org/10.1007/s10068-022-01214-9)

Momordica charantia (bitter melon) efficacy and safety on glucose metabolism in Korean prediabetes participants: a 12-week, randomized clinical study.

Nutrients. 2020 May; 12(5): 1252.

Published online 2020 Apr 28. doi: [10.3390/nu12051252](https://doi.org/10.3390/nu12051252)

High in fiber which decreases the absorption of glucose into the blood stream.

Contains 3 known chemicals that help to lower blood sugar.

Saponins and terpenoids may help to move the glucose into the RBC and help the liver and muscles better process and store glucose.

mclRBP-19 of Bitter Melon Peptide Effectively Regulates Diabetes Mellitus (DM) Patients' Blood Sugar Levels

Charanti is a blood glucose lowering effect (Peptide that imitates insulin)

Vicine, an insulin like compound known as polypeptide-P

Contains a lectin that reduces blood glucose concentrations by acting on peripheral tissues and suppressing appetite; similar to effects of insulin in the brain resulting the hypoglycemic effect - diabetes.co.uk

Affects the beta cells of the pancreas and intestinal absorption in the intestine of dietary glucose and amino acids and has stimulatory effects on the insulin secretion but not on glucagon secretion.

Found to stimulate insulin release from the beta cell rich pancreatic islet cells sciencedirect.com

Arctium lappa (Burdock Root)

Avicenna J Phytomed. 2017 Mar-Apr; 7(2): 169–179.

Antidiabetic, hypolipidemic and hepatoprotective effects of *Arctium lappa* root's hydro-alcoholic extract on nicotinamide-streptozotocin induced type 2 model of diabetes in male mice.

Burdock root helps to increase serum insulin levels.

Opuntia ficus-indica (Prickly Pear Cactus)(Nopalitos)

- Evidence Based Complement Alternative Med. 2017; 2017: 4380721. Published online 2017 Feb 20. doi: [10.1155/2017/4380721](https://doi.org/10.1155/2017/4380721)

Antidiabetic Effect of Fresh Nopal (*Opuntia ficus-indica*) in Low-Dose Streptozotocin-Induced Diabetic Rats Fed a High-Fat Diet

Plants in the *Opuntia* family produce a slime that is part of the dietary fiber that is produced by this plant. The dietary fiber seems to disrupt the absorption of glucose in the intestine as well as reducing blood glucose levels after ingestion.

Nelumbo nucifera (Lotus Root)

***Bioscience, Biotechnology, and Biochemistry*, Volume 76, Issue 3, 23 March 2012, Pages 462–466, <https://doi.org/10.1271/bbb.110745>**

Effects of lotus root (the edible rhizome of *Nelumbo nucifera*) on the development of non-alcoholic fatty liver disease in obese diabetic db/db mice

Lotus root has been shown to inhibit mRNA expression of tumor necrosis factor - alpha and monocyte chemoattractant protein-1 which are both elevated in conditions of insulin resistance and diabetes. Lotus Root also increases serum adiponectin which is a protein hormone that is secreted by adipocytes which helps to increase insulin sensitivity and blood glucose regulation.

Green Tea

Beneficial effects of green tea: A literature review

Chin Med. 2010; 5: 13.

Published online 2010 Apr 6. doi: [10.1186/1749-8546-5-13](https://doi.org/10.1186/1749-8546-5-13)

Green tea contains a catechin that is the most abundant in green tea called (-)-epigallocatechin-3gallate (EGCG) that helps with decreasing intestinal glucose absorption and helps to decrease serum glucose levels.

-Drinking Instructions for the Green Tea

- use the same tea bag the whole day and drink your tea
- Refill the cup with more water and drink and repeat throughout the day
- In the morning when the tea is first consumed, this will be high in caffeine.
- The more you refill the water, the caffeine decreases and the flavonoids and catechin increase giving you the great benefits toward the end of the day