Which Green Foods Fight Type 2 Diabetes?

By Deborah Mitchell G+ May 12, 2013 - 7:00am for eMaxHealth



If the thought of managing and treating type 2 diabetes makes you see red, how about fighting it with green? Several green foods have been shown to be beneficial in the fight against type 2 diabetes, as explained here.

Sprouts put up a fight against diabetes

A new study appearing in the *Journal of Medicinal Food* explains how broccoli sprouts, which contain a number of important bioactive compounds such as sulforaphane, can benefit people with type 2 diabetes. According to the researchers, individuals with type 2 diabetes who supplement with high sulforaphane broccoli sprouts experienced an increase in total antioxidant capacity and a decline in oxidative stress, triglycerides, oxidized low-density lipoprotein (LDL, the bad cholesterol)/LDL-cholesterol ratio, insulin resistance, and high-sensitive C-reaction protein—all indicators of type 2 diabetes risk.

This finding led the authors to conclude that "sulforaphane and probably other bioactive components of young broccoli sprouts makes it an excellent choice for supplementary treatment in type 2 diabetes."

Other green foods for type 2 diabetes Other green foods also can benefit individuals who have type 2 diabetes. Here are a few of them.

Barley grass. At the University of Minnesota, researchers evaluated the use of barley beta-glucan extract against blood lipids (cholesterol and triglycerides, both of which are often elevated in people with type 2 diabetes). Beta-glucan is a soluble fiber that has been shown to significantly lower LDL cholesterol.

In a group of 155 individuals, barley beta-glucan was supplemented in two forms: a cereal and a reduced-calorie fruit juice offering either 3 or 5 grams of the fiber. After six weeks, the average LDL cholesterol levels declined by 15 percent in the 3 gram group and 13 percent in the 5 gram group, with similar results for total cholesterol.

Avocado. This fruit is an excellent source of monounsaturated fat, a type of good fat. Although avocado is high in calories, this fruit is an excellent source of monounsaturated fat, a type of good fat. Be sure to enjoy small amounts of avocado often: slices in a tossed green salad served with lemon and olive oil or as guacamole dip with fresh veggies are both favorites.

A study appearing in *Diabetes Care* looked at the effect of a diet enriched with avocado in 12 patients with type 2 diabetes. The participants were randomly assigned to consume two different diets alternatively during two 4-week periods: one was high in monounsaturated fats (including avocado) and the other was high in complex carbohydrates. A four-week washout period was observed between the two dietary periods.

Although participants experienced a decline in cholesterol during both diets, the monounsaturated diet with avocado was associated with a greater decline in triglycerides (20% vs 7%). Both diets also achieved similar glycemic control. The researchers concluded that monounsaturated fatty acids (with avocado) in patients with type 2 diabetes "improves the lipid profile favorably, maintains an adequate glycemic control, and offers a good management alternative."

Kale (and other greens). Several studies have indicated that eating kale and other leafy green vegetables is associated with a lower risk of type 2 diabetes. In the *British Journal of Nutrition*, for example, a systematic review and meta-analysis of six studies revealed that eating more green leafy vegetables in particular was associated with a reduced risk (14%) of getting diabetes.

A Tulane University study looked at the impact of eating green leafy vegetables, fruit, and fruit juice on development of type 2 diabetes among more than 71,000 women. Researchers found that eating green leafy vegetables and fruit was associated with a lower risk of diabetes.

Green vegetables can be enjoyed in a wide variety of ways, from fresh salads to smoothies and juices, whipped into dips, mixed into soups, and added to casseroles. To help with the prevention and management of type 2 diabetes, go green foods.

SOURCES: Bahadoran Z et al. Potential efficacy of broccoli sprouts as a unique supplement for management of type 2 diabetes and its complications. *Journal of Medicinal Food* 2013 Apr 30 Bazzano LA et al. Intake of fruit, vegetables, and fruit juices and risk of diabetes in women. *Diabetes Care* 2008 Jul; 31(7): 1311-17 Carter P et al. Fruit and vegetable intake and incidence of type 2 diabetes mellitus: systematic review and meta-analysis. *British Medical Journal* 2010; 31:c4229 Keenan JM et al. The effects of concentrated barley beta-glucan on blood lipids in a population of hypercholesterolaemic men and women. *British Journal of Nutrition* 2007 Jun; 97(6): 1162-68 Lerman-Garber I et al. Effect of a high-monounsaturated fat diet enriched with avocado in NIDDM patients. *Diabetes Care* 1994 Apr; 17(4):311-15