

Diabetes and Soy

Eating on Purpose - A diagnosis of diabetes means thinking about what and when you eat. Making good food choices can help you feel better and stay healthier and manage your diabetes for life. Soy foods are a wonderful addition to any diet – they taste great, are high in protein, and are easy to use. Soy foods can also help manage diabetes as well as some associated health problems.

Blood glucose control – Soy foods have a low *glycemic index* (The measure of how fast and how much a food raises blood glucose levels) and they are generally good sources of fiber. Soy may also improve how insulin works in your body.

Heart disease – Coronary heart disease (CHD) is the leading cause of death for people with diabetes, who are about three times as likely to develop CHD as those without diabetes. Soy protein alone may reduce LDL (“bad”) cholesterol levels by about 5 percent - even a small drop in LDL decreases the risk for heart disease. Some studies also indicate that soy foods can help blood vessels to work better and reduce blood pressure. By replacing or decreasing foods that are high in saturated fat, like meat and dairy, soy foods help reduce the risk for heart disease.

Diabetic kidney disease – Some studies suggest that soy protein may help protect kidney function in diabetes better than animal protein.

Weight control – Soy is low in calories and high in nutrition. When soy replaces higher-fat foods, it reduces the overall fat, calorie and cholesterol content of the diet.

Other health effects – Researchers are looking at many other health benefits of soy. Recent studies have shown that soy may be helpful in preventing bone loss and may help prevent or slow the development of some cancers. Research also suggests that eating soy foods during the teenage years may reduce the risk of developing breast cancer later in life. Including soy in your daily diet is a small change that could have a big impact.

More information about diabetes, including references to the scientific literature, is available on the following websites:

www.thesoyfoodscouncil.com (click on “Health & Nutrition”)

www.soynutrition.com

www.diabetes.org

www.urbanext.uiuc.edu/diabetes2

Soy Nutrients and Carbohydrates

Soybeans are a nutrition powerhouse – rich in vitamins, minerals, essential fatty acids (including alpha-linolenic acid, an omega-3 fatty acid), and fiber – yet they are low in calories. They are a complete protein –

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this is rare among plant foods. The U.S. Food & Drug Administration (FDA) and the World Health Organization (WHO) have both recognized that isolated soy protein is equivalent in quality to the protein in eggs and milk.

In addition to their excellent nutrition value, soybeans also contain isoflavones. These are believed to contribute many of the health benefits of soy. Isoflavone levels vary with processing, but whole soybeans like edamame and soy nuts, as well as traditional soy foods like tofu and soymilk, generally retain most of their naturally occurring isoflavones.

Carbohydrate Counting

In diabetes it's important to watch your carbohydrate intake. Remember to read the Nutrition Facts labels to look for the grams of carbohydrate. Some soy foods are high in fiber, which is not broken down into glucose. If a product has 5 or more grams of fiber, subtract the grams of fiber from the grams of carbohydrate to get a better estimate of the carbohydrate content that will affect your blood glucose levels. When counting carbohydrates, one carbohydrate choice (carb count) equals 15 grams. A table of Carbohydrate Counts for Soy Foods is available at: www.nsrll.illinois.edu/nutrition/soycarbs.pdf

Always check the Nutrition Facts label on the soy foods you buy. Products vary from brand to brand.

If you use soy foods on a regular basis, talk to your health care providers about incorporating them into your meal plan. For example, if you would rather use calcium-fortified soymilk instead of dairy milk, they can make the substitution in your meal plan.

As always, a great way to check the effects of new foods on your body's response is to self-monitor your blood glucose.

Soy Foods

Even if you've used soy foods before, you may not be familiar with the many ways soy foods can help you make quick and nutritious meals. Some of the newer soy products make it easy to serve meals with very little change in how you cook. Simply replace a hamburger with a veggie burger or make tacos with soy crumbles or textured soy granules, instead of ground meat. You can also mix ground meats half and half with soy crumbles or textured soy to extend it. This will reduce the amount of saturated fat and cholesterol while still keeping some of the meat's flavor.

But soy can be used as more than a meat substitute. You can add high-quality protein to all kinds of dishes when you use soy foods. Even desserts get a nutritional boost when you include soy.

The National Soybean Research Laboratory, located at the University of Illinois, promotes soybean research, education and outreach in the areas of production, nutrition and international development. Check out our other Soy Foods Fact Sheets for a listing of the kinds and types of soy foods and recipes. www.nsrll.illinois.edu at the Nutrition tab.