Nutrition Nibbles

Breakthrough common nutrition myths, see what's trending, catch up on latest research, and get great tips from our team of Registered Dietitians.

If you eat too much sugar, you'll get diabetes.

You will not get diabetes from eating sugar. It's wise, however, to limit your sugar intake. Foods that are high in sugar, such as cookies, candies and soft drinks, are often low in nutrients and high in calories. Diets with too many calories can lead to weight gain, and being overweight is one of the main risk factors for type 2 diabetes. You can reduce your risk of developing type 2 diabetes by eating a healthy diet, maintaining a healthy weight and being physically active.

Diabetes Awareness Month

What is a Glycemic Index vs. Glycemic Load?

The Glycemic Index (GI) ranks carbohydrate foods according to how much they raise blood sugar levels as compared to a standard food. The standard food (white bread) is given a value of 100, which is equivalent to pure glucose. Low GI foods (55 or less) release glucose more slowly and steadily; most fruits, vegetables, and legumes are in this category. Medium GI foods (56 - 69) and high GI foods (70 - 100) cause blood glucose levels to increase more quickly; as a general rule, the more processed the food the higher the GI value.

The GI of a food can change depending on how that food is prepared and served; including fat, fibre, and protein as part of a meal or snack will help to lower the GI response. The GI response may be different from one person to the next; also, the same person might get a different GI response depending on their age, their level of insulin resistance, their level of activity, as well as the time of day a food is consumed. Using the GI is only one part of a healthy eating plan.

The glycemic load (GL) of a serving of food puts together its carbohydrate content and its glycemic index to give a more accurate estimate of how much it will affect blood glucose level. Once you know a food's glycemic index and the carbohydrate content of the amount you plan to eat, you can calculate your portion's glycemic load. Whereas the glycemic index is a good way of making food choices, glycemic load helps to work out how different sized portions of different foods compare with each other in terms of their blood glucose raising effect.

For more information, lists of low, medium, and high GI foods, and patient handouts, please visit the following: http://www.diabetes.ca/diabetes-and-you/healthy-living-resources/diet-nutrition/the-glycemic-index http://guidelines.diabetes.ca/CDACPG/media/documents/patient-resources/glycemic-index.pdf

For more information on how Glycemic Index and Glycemic Load work together, please visit the following: http://www.diabetesselfmanagement.com/nutrition-exercise/meal-planning/carbohydrate-counting-glycemic-index-and-glycemic-load-putting-them-all-together/

A Review of Some Natural Health Products (NHPs) in Diabetes Management

Milk thistle: Randomized controlled studies of three months duration or longer have shown that sylimarin, a constituent of milk thistle, lowers HbA1C levels ≥0.5% in adults with type 2 diabetes. Silymarin seems to decrease insulin resistance and have a protective effect on the pancreas. This is thought to be due to silymarin's antioxidant effects. Oxidative stress is thought to contribute to pancreatic beta-cell dysfunction, reduced insulin secretion, and insulin resistance.
Amount suggested for proposed benefit: A specific silymarin product (Legalon, Madaus GmbH, Cologne, Germany) 200 mg three times daily for 4 months to one year has been used. A different silymarin product (Luna Co., Cairo, Egypt) 200 mg daily for 120 days has also been used.

Honey: Some human and animal studies suggest that honey modestly decreases fasting blood glucose, HbA1C, cholesterol levels, and weight in patients with diabetes. Fructose, one of honey's main constituents, is thought to work synergistically with glucose to enhance intestinal fructose absorption and/or stimulate insulin secretion in the gastrointestinal tract and pancreas. Other reviews suggest that oligosaccharides, rather than fructose, have a role in honey's antidiabetic effects. Honey is considered likely safe in adults and children over 1 year of age. However, honey produced from the nectar of Rhododendrons may be unsafe. This type of honey may lead to cardiovascular symptoms.
Amount suggested for proposed benefit: 1-2.5 g/kg or 0.5 mL/kg daily for 8-12 weeks of natural unprocessed honey.

Magnesium: In people with existing type 2 diabetes, hypomagnesemia occurs in 25% to 38% of patients. Also, hypomagnesemia is more common in people with poorly controlled diabetes. Some research suggests magnesium supplements can decrease fasting blood glucose and improve insulin sensitivity. Magnesium is likely safe when used orally and appropriately. However, magnesium could possibly be unsafe when used orally in excessive doses. Doses greater than the tolerable upper intake level (UL) of 350 mg frequently cause loose stools and diarrhea.
Amount suggested for proposed benefit: 350 mg daily.

Magnesium for Diabetes prevention? Higher dietary magnesium intake is associated with lower fasting insulin concentrations and a reduced risk of developing type 2 diabetes in adults and obese children.
Amount suggested for proposed benefit: A 100 mg/day increase in dietary magnesium intake is associated with a 14% to 15% risk reduction for developing type 2 diabetes. This is equivalent to the magnesium found in 4 slices of whole grain bread, 1 cup of beans, 1/4 cup of nuts, 1/2 cup of cooked spinach, or 3 bananas.

Other NHPs:

Possibly effective: Alpha-lipoic acid, milk thistle, chromium - these have been shown to be likely safe or possibly safe.
Insufficient reliable evidence to rate: Cassia cinnamon – safe when used orally and appropriately, but may be possibly unsafe when used orally in high doses, long term. Bitter melon – likely safe in most people, but likely unsafe in pregnancy.
Possibly ineffective: garlic, omega 3 fats (DHA and EPA), selenium

Bottom Line: NHPs are not recommended for glycemic control in individuals with diabetes. There is insufficient evidence about their efficacy, and long term safety has not been established for many products. Most studies investigating NHPs are single small trials, so it would be premature to recommend their widespread use.

http://guidelines.diabetes.ca/browse/chapter21

Talk to your Registered Dietitian for more information.