



Carbohydrates and the Glycemic Index

If you have diabetes, are trying to lose weight or need to reduce blood cholesterol and triglycerides, following a health eating pattern as outlined in the Canada's Food Guide is critical for your success and well-being.



Choosing Food

You may also benefit from choosing carbohydrate-containing foods such as grain products, sweets and some starchy vegetables with care. Some carbohydrate-containing foods cause blood sugar and insulin levels to rise too high, a reaction that is not healthy for people with these conditions. So the best choices for you are the carbohydrate-containing foods that do not stimulate such large rises in blood sugar and insulin. These are the carbohydrate-containing foods with a lower Glycemic Index (GI).

The Glycemic Index

The Glycemic Index (GI) is a system of ranking carbohydrate-containing foods (sugars and starches) from 1 – 100 according to their effect on blood sugar (glucose) and the release of the hormone, insulin. Foods with high GI such as sugar and white bread cause blood sugar and insulin levels to rise to high levels quickly. Foods with a low GI such as milk, vegetables, legumes and fruit stimulate only a modest rise in blood sugar and insulin.



There is no fool-proof way to predict the GI of any food not on the following list. It depends on its form (mashed or whole), whether it is cooked or raw and how it has been processed. In general however, whole grain foods and higher fibre foods such as bran from wheat and oats seem to be linked with a lower GI. Protein and fat in the same meal will also reduce the effects of food with a higher GI. So cheese, a source of protein and fat would be a good food to combine with a cracker which tends to fall in the higher GI category.



The Glycemic Index



Low GI Foods (GI<55)	Intermediate GI Foods (GI 55-70)	High GI Foods (GI>70)
<ul style="list-style-type: none"> • Bran Buds with Psyllium™ • Pumpernickel bread • Sour dough bread • 100% whole wheat bread • Oat bran, cooked • Milk (includes chocolate) • Yogurt • Linguine Pasta – thick • Macaroni and spaghetti • Potato chips • Grapes, kiwi, grapefruit, banana • Apple • Orange • Chocolate • Peanuts • Soybeans, soy beverage • Peas, carrots • Kidney, chick, baked beans • Lentils 	<ul style="list-style-type: none"> • Rye, whole wheat bread • Whole wheat pita bread • Oatmeal cookie • Cheese and tomato pizza • Popcorn (light microwave) • Cantaloupe • Mango • Pineapple • Raisins • Sweet corn • New potato • Oatmeal, cooked • Couscous • Sweet potato • Beets 	<ul style="list-style-type: none"> • French baguette • White bread • Bran Flakes • Corn Flakes • Raisin Bran • Pretzels • Instant rice • Short grain white rice • Soda crackers • Sugar donuts • Dried dates • Watermelon • French fries • Jelly beans • Mashed potato • Bagels • Cheerios® • Rice Krispies® • Parsnips

Reference: Beyond the Basics Meal Planning for Healthy Eating, Diabetes Prevention and Management, Canadian Diabetes Association 2007

