

the glycemc index

People with diabetes are advised to include carbohydrate foods at every meal as part of their daily eating plan. Both the amount and the type of carbohydrate foods eaten affects your blood glucose levels. The amount of carbohydrate includes both the sugars and starches in food, whereas the type of carbohydrate is often referred to as the Glycemic Index (GI).

Carbohydrate foods

Carbohydrate foods are the body's main energy source. Carbohydrates are broken down in the gut, and released as glucose into the blood stream. This is why, for optimal blood glucose management, it is important to have three regular meals each day, with each meal containing suitable amounts of carbohydrate foods depending on your energy needs. This will help prevent large rises and falls in your blood glucose levels throughout the day.

High carbohydrate foods:

- > Breads
- > Breakfast cereal
- > Rice, pasta and other grains such as barley and couscous
- > Some vegetables (eg: potatoes, sweet potatoes, corn)
- > Legumes (eg: dried or canned beans, lentils, chickpeas)
- > Fruits and fruit juices
- > Milk and yoghurt

How can the GI help?

Research has shown that by eating a diet with a lower GI, people with diabetes can reduce their average blood glucose levels. This is important in reducing the risk of developing diabetes-related complications. A lower GI diet may improve the body's ability to use glucose for energy and help to lower blood fats, such as triglycerides, and raise HDL-C (healthy cholesterol). Low GI foods may also help improve satiety (feeling of fullness) which may help with weight management.

Most carbohydrate foods are digested to produce glucose but they do so at different rates, some slowly and some quickly. The Glycemic Index (GI) is a ranking of carbohydrate foods according to their effect on blood glucose levels.



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GI of commonly eaten foods:

| Low GI (GI = 55 or less) | Intermediate GI (GI = 56–69) | High GI (GI = 70 or more) |
|--|---|---|
| Breads | | |
| Burgen, PerforMAX®, Tip Top, 9 Grain® Fruit Loaf. | Pita bread, hamburger bun, rye bread, wholemeal, crumpet. | White bread, bagel, blackbread, Wonderwhite®, Lebanese bread, gluten free bread. |
| Breakfast Cereals | | |
| All Bran fruit'n oats, All Bran®, Guardian®, Traditional porridge, Special K®, Rice Bran. | Oatbran, untoasted muesli, Just Right®, Sustain®, Weet-Bix®. | Sultana Bran®, Bran Flakes®, Coco Pops®, Puffed Wheat®, Rice Bubbles®, Cornflakes®. |
| Grains | | |
| Barley, pasta (all types), noodles, bulgur, semolina. | Moolgiri rice, Basmati rice, wild rice, Sunrice, Doongara® rice, Mahatma Premium® Classic, couscous, cornmeal, tapioca. | Brown rice, calrose rice, jasmine rice. |
| Legumes | | |
| All beans (kidney, soy, baked bean, etc) peas, lentils. | | Broad beans. |
| Vegetables | | |
| Sweet potato, taro. | | Other potatoes, parsnip, french fries. |
| Dairy Foods | | |
| Milk, So Good® soy drink, low fat fruit yoghurt, custard, some low fat ice creams. | | |
| Biscuits | | |
| Snack Right®, Fruit Slice®, Apricot, Sultana, Oatmeal®. | Digestives, Shredded Wheatmeal, Milk Arrowroot. | Morning Coffee. |
| Fruit | | |
| Grapefruit, peach, dried apricots, apple, pear, plums, orange, grapes, kiwi fruit, banana, prunes. | Sultanas, raw and canned apricots, mango, paw paw, raisins, rockmelon, pineapple. | Watermelon, dates. |



to incorporate the glycemic index into your eating plan at each meal (and snack if

How can I apply the GI to my eating plan?

Incorporating the Glycemic Index into your eating plan simply involves including healthy low GI foods at each meal and snack (if you have them) every day. Try swapping the high GI foods in your current eating plan with lower GI options such as changing from a high GI white bread to a dense grainy low GI bread.

To ensure a food is healthy overall, you need to also consider other nutritional qualities such as the amount and type of fat, the amount of added sugar, and the fibre and sodium (salt) content. Refer to the *Reading Food Labels* information sheet.

Quality of carbohydrate

If you eat too much carbohydrate at one time, it may result in high blood glucose levels, even if it has a low GI. Therefore consideration must be given to the total amount of carbohydrate-containing foods you eat. Of course, individual requirements vary, therefore it is best to talk to your dietitian about the optimal amount of carbohydrate foods you need each day.

Remember, the GI is one part of healthy eating for people with diabetes. For a more complete picture refer to the *Food Choices for People with Diabetes* information sheet.

Keep an eye out for the GI Tested logo

To help people identify healthy low GI foods while shopping, the University of Sydney, Diabetes Australia and the Juvenile Diabetes Research Foundation joined forces to develop the easily identifiable GI Symbol. The Symbol indicates that a food has had its GI measured using the Australian Standard to ensure its accuracy, and that it meets strict nutrient criteria consistent with Australia's Dietary Guidelines ie: they must contain at least 10 grams of carbohydrate per serve, be low in saturated fat, moderate in kilojoules and sodium (salt), and where appropriate a source of dietary fibre and calcium.



The GI Symbol was officially launched to Australian consumers in July 2002. A broad selection of foods and beverages with the Symbol are available in your local supermarket.



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The design, content and production of this diabetes information sheet has been undertaken by the eight State and Territory member organisations of Diabetes Australia Ltd listed below:

- > Diabetes Australia – NSW
- > Diabetes Australia – Queensland
- > Diabetes ACT
- > Diabetes SA
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