

information about sugar

As shown by research into the glycemic index (GI), people with diabetes no longer need to avoid all sugars. We now know that sugar found naturally in or added to nutritious foods such as breakfast cereals, low fat custard and yoghurt, should not adversely affect blood glucose levels and can in fact be part of a healthy well balanced diet.

What is the glycemic index of foods?

Most carbohydrate foods end up as glucose in the blood but they do so at different rates – some slow, some fast. The glycemic index (GI) is a way of describing how a carbohydrate-containing food affects blood glucose levels.

Foods with a low GI raise blood glucose more slowly. Blood glucose levels do not go as high as they do with high GI foods. Therefore, including at least three serves of low GI foods throughout the day can help with overall blood glucose management. Refer to the *Glycemic Index* information sheet for more details.

Which foods have a lower GI?

Carbohydrate foods that have a lower GI include:

- | | |
|----------------------------------------------------------------------|-----------------------|
| > Traditional oats and porridge | > Pasta and spaghetti |
| > Wholegrain bread | > Barley |
| > Legumes including baked beans, kidney beans, chickpeas and lentils | |
| > Temperate fruits like apples, oranges, pears and stone fruits | |
| > Starchy vegetables like sweet potatoes and corn | |
| > Low fat dairy foods like yoghurt and milk | |

For many years it was thought that foods containing sugar would cause a rapid rise in the blood glucose levels of people with diabetes and starchy foods (complex carbohydrates) would cause a slower rise. We now know that this is not the case.



information about sugar

What is the GI of sugar?

The GI of sugar (also known as sucrose or table sugar) is moderate (neither high nor low). To put this into context, the GI of sugar is compared in the table below with a few examples of widely used healthy foods:

Food item	Glycemic index comparison
Many tropical fruits	GI of sugar is similar
Weet Bix®	GI of sugar is similar
Wholemeal bread	GI of sugar is slightly lower
Most kinds of rice and potato	GI of sugar is much lower

That is why it is no longer necessary to avoid all sugars. Or course, this doesn't mean you should start eating tablespoons of sugar with everything. What it does mean is that the emphasis no longer needs to be on avoiding sugar at all costs.

In general, your meals need to be based on a variety of foods that are lower in fat (particularly saturated fat), high in fibre and with a low GI. Including some sugar with these foods will not upset your diabetes management and may make it easier to follow a healthy eating plan.

How much sugar can I have in a day?

The exact amount of sugar to include in your eating plan cannot be specifically stated as it will depend very much on the individual. Your age, activity level, weight, diabetes medication and overall blood glucose management will all play a part. For more specific information about how much sugar in a day is best for you, your dietitian or diabetes educator will help.

Here are some ideas on how to use sugar in a healthy eating plan:

- > Add a teaspoon of sugar to porridge, All Bran®, Guardian®, etc.
- > Add a scrape of honey or regular jam to wholegrain, wholemeal or high fibre white bread, preferably with a low GI.
- > It's okay to use some sugar in recipes for cakes, muffins and biscuits.
- > Choose lower fat sweet commercial biscuits eg: Arnott's Full o' Fruit® or Snack Right Fruit Slice®.
- > Sugar in low fat savoury foods is usually present in small amounts and is unlikely to have any effect on blood glucose levels eg: baked beans, tomato sauce, pickles and chutney.



Is it necessary to include added sugar if you don't want to?

Not at all, the choice is yours. Small amounts of added sugar can make many nutritious foods more enjoyable without having a major effect on your blood glucose levels. On the other hand, there is a variety of alternative sweeteners available in Australia that can be used as an effective substitute. Refer to the *Alternative Sweeteners* information sheet.

When is sugar not the best choice?

When the food is made mainly from sugar

- > It is best not to eat foods in which sugar is the main ingredient. For example, soft drinks, cordials and lollies have sugar as their main ingredient and don't provide any additional nutritional value. As a rule, these products are best used in cases of low blood glucose ('hypos') or during exercise. Otherwise, choose alternatively sweetened, low calorie/kilojoule drinks such as Diet Coke®, Pepsi Max®, Diet Ginger Ale, Weight Watchers®, Schweppes or Cottees® low joule cordials.
-

When the food is high in sugar and fat

- > It is best not to eat foods too often that are high in sugar and fat (particularly saturated fat). For example, many foods that are high in sugar like most cakes, biscuits and chocolates are also loaded with fat. Too much total and saturated fat can put on weight, increase blood cholesterol and triglycerides and in the long run upset your diabetes management.
-

When you need to cut down on carbohydrates

- > If you've been advised to cut down on the amount of energy (calories/kilojoules) or carbohydrate you eat, not eating added sugars can help you to reduce calories/kilojoules and may help you to lose weight and reduce your blood glucose levels.
-

information about sugar

More information

To find out more about sugar, consult an Accredited Practising Dietitian (APD):

- > The Dietitians Association of Australia on 1800 812 942
- > Your State or Territory Diabetes Organisation on 1300 136 588

Dietitians are based in many local hospitals, diabetes centres and community health centres and are also listed in the telephone book.

Would you like to join Australia's leading diabetes organisation?

- > Dietary services
- > Free magazines
- > Children's services
- > Educational literature
- > Product discounts
- > Support groups

For more information phone **1300 136 588** or visit your State/Territory Organisation's website:

ACT	www.diabetes-act.com.au	NSW	www.diabetesnsw.com.au
NT	www.healthylivingnt.org.au	QLD	www.diabetesqld.org.au
SA	www.diabetessa.com.au	TAS	www.diabetestas.com.au
VIC	www.diabetesvic.org.au	WA	www.diabeteswa.com.au

The design, content and production of this diabetes information sheet has been undertaken by:

- > Diabetes Australia – NSW
- > Diabetes Australia – Queensland
- > Diabetes ACT
- > Diabetes SA
- > Diabetes WA
- > Diabetes Australia – Victoria
- > Diabetes Australia – Tasmania
- > Healthy Living NT

The original medical and educational content of this information sheet has been reviewed by the Health Care and Education Committee of Diabetes Australia Ltd. Photocopying this publication in its original form is permitted for educational purposes only. Reproduction in any other form by third parties is prohibited. For any matters relating to this information sheet, please contact National Publications at dapubs@tpg.com.au or phone 02 9527 1951.

Health professionals: For bulk copies of this resource, contact Diabetes Australia in your State/Territory.

Revised August 2009 A diabetes information series from State / Territory organisations of Diabetes Australia – Copyright© 2009