

Helping us understand sugars, nutrition and health

People with diabetes can still enjoy sugar



Over a million Australians and over 200,000 New Zealanders have diabetes, and this number is rapidly increasing. In fact, one person is diagnosed with diabetes every 5 minutes in Australia.

Because diabetes is a condition where blood glucose levels are too high, many people think it is caused by sugar and that they need to avoid sugars and foods containing sugar. Sugar does not cause diabetes and if included as part of a healthy balanced diet, sweets and desserts can be enjoyed in moderation by people with diabetes.

This information sheet will explain what causes diabetes and provide you with some diet and lifestyle tips to help reduce your risk of developing type 2 diabetes.

DID YOU KNOW?

It is estimated that 58% of type 2 diabetes could be prevented.

Steps you can take to reduce your risk of type 2 diabetes:

- Make healthy food choices according to the Australian Dietary Guidelines
- Maintain a healthy body weight
 Research shows that if you are
 overweight, even reducing your weight
 by 5-10% more than halves your risk of
 developing diabetes
- Regular physical activity Aim for at least 30 minutes of moderate activity daily

Assists with weight management and helps normalise blood glucose levels

- Manage blood pressure and cholesterol levels
- Don't smoke

What is diabetes?

The amount of glucose carried in your blood is strictly regulated. One of the hormones responsible for this is insulin, which is secreted by the pancreas and helps the body's cells take up glucose from the bloodstream. If you cannot produce enough insulin or use insulin properly, glucose builds up in the blood causing diabetes.

High blood glucose levels can damage your organs and blood vessels. If your diabetes is not successfully managed, it can lead to serious health problems, including heart disease, kidney failure, stroke, blindness and circulation problems.



There are two main types of diabetes explained in the section below.

Sugar as part of a healthy eating plan

As table sugar (sucrose) was thought to produce a quicker spike in blood glucose levels after consumption than starchy foods like bread, people with diabetes were told not to eat it in case it made management of their blood glucose levels more difficult. However, a better understanding of how quickly sugar and starchy foods are digested and absorbed into the bloodstream- which is measured using the 'glycaemic index' (see next section) – has led to a change in this advice. Sugar is absorbed into the blood at a much slower rate than previously thought. Most people with diabetes can eat sugar in moderation as part of a healthy diet that includes carbohydrates with a low glycaemic index (GI). Sugar is therefore best eaten as part of a mixed meal or snack.

KNOW YOUR DIABETES – There are two types of diabetes: Type 1 diabetes is an 'autoimmune disease' – where the body's immune system destroys the cells in the pancreas that produce insulin so your body is not able to produce it. People with this type of diabetes control their blood glucose level by balancing carbohydrate intake with insulin injections.

Type 2 diabetes is largely a 'lifestyle disease' -

where the body becomes resistant to insulin and it

cannot maintain normal levels of blood glucose and/or

gradually loses the capacity to produce enough insulin. Type 2 diabetes represents 90% of all cases of diabetes

and is associated with modifiable lifestyle risk factors.



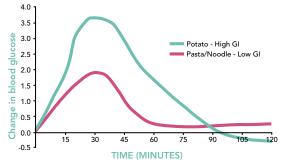
The importance of carbohydrates in the diet

Carbohydrates, such as sugar, starch and dietary fibre are broken down by the body to glucose. The cells in our body use glucose for energy to function. Glucose is found in sweet and starchy carbohydrate foods like rice, sugar, bread and fruit, and is absorbed into the bloodstream when we eat these foods The blood carries the glucose around the body to where it is needed.

In a healthy, balanced diet, carbohydrates provide between 45 and 65% of the body's energy requirements so it is important to include them in your diet.

Glycaemic index explained

The Glycaemic Index (GI) is a dietary tool that helps measure how quickly the body responds to different types of carbohydrates in foods. It ranks carbohydrates on a scale of 0 to 100 according to how much and by how quickly they raise blood glucose levels after eating (see diagram).

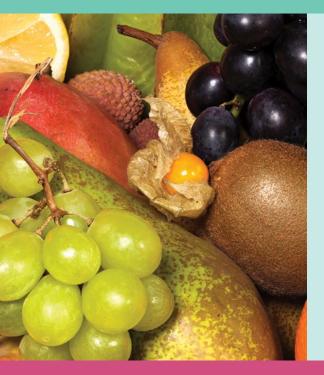


Foods with a high GI (70 or more) are rapidly digested and cause blood glucose levels to quickly rise. Low GI foods on the other hand are slowly digested and produce steady and gradual rises in blood sugar levels. Most people with diabetes are encouraged to enjoy a low GI diet.

Glycaemic index of some common foods

The digestion of food depends on a number of factors so similar foods may have very different GI scores. The table summarises, in general terms, the glycaemic index of common foods. For the specific GI of a particular food, visit the website: www.glycemicindex.com

| Low GI foods | Moderate GI foods | High GI foods |
|-----------------------------------------------------------|--------------------------|------------------------|
| Skim milk | Table sugar | White breads |
| Low-fat yoghurt | Basmati rice | Potatoes |
| Lentils | Wholemeal bread | Some breakfast cereals |
| Rolled oats porridge | Rockmelon | Sports drinks |
| Multi-grain breads | Sweet corn | White rice |
| Chocolate | Breakfast Wheat Biscuits | Watermelon |
| Fruits such as: apples, peaches, oranges and grapes | Bagel | Jelly beans |



THE SHORT AND SWEET OF IT

Sugar does not cause diabetes

- Diabetes is a result of the body not producing enough insulin or not being able to use insulin properly.
- 2. Most people with diabetes have type 2 diabetes. Type 2 diabetes develops over time and is linked to being overweight or obese, inactive, or having a poor diet.
- Most people with diabetes can eat sugar in moderation as part of a healthy, low GI diet. It is best eaten as part of a mixed meal or snack.

Table sugar (sucrose) is not the same sugar that is in your bloodstream

- The sugar in your bloodstream is called glucose. Most of the body's cells break-down glucose for energy.
- Glucose comes from the digestion of carbohydrates, making them an essential food group for everyone to include as part of a healthy, balanced diet.
- Sugar has a moderate impact on blood glucose levels and so has a medium GI.

Information based on an overview of the scientific evidence. For individual health advice see a qualified health professional.

Further Reading

- 1. RACGP and Diabetes Australia. General practice management of type 2 diabetes 2014–15. Melbourne 2016.
- 2. Dyson PA, Kelly T, et al. Evidence-based nutrition guidelines for the prevention and management of diabetes Diabet Med. 2011 Nov; 28(11):1282-8
- 3. Diabetes Australia. What should I eat? [Internet]. Canberra ACT: Diabetes Australia; [cited
- https://www.diabetesaustralia.com.au/what-should-l-eat
- 4. The University of Sydney, Glycemic Index [Internet]. Sydney, NSW: The University of Sydney; [cited Nov 2016]. Available from: http://www.glycemicindex.com/

More info available at www.allaboutsugars.com

This resource has been developed by the Australian Sugar Industry Alliance and aims to provide science based information on sugars and health.