

# Sweeteners



A wide variety of sweeteners are available. This leaflet describes how the different types of sweeteners affect blood glucose.

## **Sugar (sucrose)**

People with diabetes do not need to avoid sugar altogether. If you have a healthy diet with lots of fruit and vegetables, enough starchy food and not too much fat, a small amount of sugar is fine. Your dietitian will provide more information about how and when sugar can be included.

## **Fructose**

Fruit contains a natural sugar called fructose. Fructose affects blood glucose levels differently depending on how it is taken.

- Fructose raises blood glucose levels slowly when eaten as fruit. Aim to eat at least five portions of fruit and vegetables every day.
- Fructose is absorbed much more quickly from fruit juice. This means that fruit juice can make your blood glucose rise rapidly. Therefore, only take fruit juice in small amounts, and preferably with meals to reduce the effect.

Sometimes fructose is added to foods as a sweetener. However, this does not offer any advantage over sugar for people with diabetes. Added fructose contains the same calories as sugar, still affects blood glucose levels and can have a laxative effect if eaten in large quantities.

## Non-nutritive sweeteners

Non-nutritive sweeteners are known as artificial sweeteners. Examples include aspartame (nutrasweet), saccharin (Sweet n' Low), stevia/rebaudioside (Truvia), sucralose (Splenda), acesulfame potassium (K) and cyclamate (often combined with other artificial sweeteners). Sweeteners have virtually no calories and do not affect blood glucose levels. Sugar-free, diet or low-calorie drinks tend to be sweetened with non-nutritive sweeteners so make a good alternative to ordinary sugary drinks. However, fizzy drinks should only be taken in small quantities as they can damage teeth.

Non-nutritive sweeteners are available as tablet, liquid and granulated form to sweeten food and drinks like tea/coffee and breakfast cereal. Some non-nutritive sweeteners can be used successfully in baking by following the manufacturers' instructions. However, they should only be used in small amounts as they are intensely sweet.

Non-nutritive sweeteners are closely regulated by law.

- Try to use a variety of brands so that you do not exceed an acceptable intake of any one sweetener.
- Make sure that children under five years do not have more than three beakers (180ml diluted volume each, 540ml diluted volume in total) of squash containing cyclamate a day. This squash should be diluted one part squash to 10 parts water. Cyclamate may also be labelled as cyclamic acid or E952.

## Nutritive sweeteners

Nutritive sweeteners have very few calories and are not digested by the body. These sweeteners are polyols. Varieties include sorbitol, malitol, xylitol, isomalt and mannitol. They are often found in processed foods such as chocolate, sweets, biscuits, chewing gum, including those labelled 'suitable for diabetics/people with diabetes'. Although these foods might be labelled sugar-free, they may not be any healthier as they tend to be high in fat and calories.

Polyols can cause abdominal pain, diarrhoea and wind. Eventually these sweeteners will be converted into glucose in the liver so can affect blood glucose if eaten to excess. Therefore, take care not to have too much.

## Cooking tips

- Most cakes, pies and crumbles will work if the sugar is cut in half. Experiment by reducing the sugar in baking, but be aware that cakes will not keep as long as those made with the standard recipe.
- Try adding dried fruit and spices instead of sugar, for example in fruit scones, fruit loaf or fruit puddings.
- Sweeten cold desserts like custard or fruit fool with a granulated non-nutritive sweetener if necessary.
- Always follow the manufacturers' instructions when using non-nutritive sweeteners in cooking and baking.

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