

Carbohydrates

Carbohydrates are an important part of a healthy balanced diet.

Typically, carbohydrates can be divided into the following categories:

- **simple/free sugars**
(jam, sweets, fruit juice)
- **complex/starchy carbohydrates**
(bread, rice, potato).

This idea can be taken further, as some sources of carbohydrate even if they are complex/starchy can be highly refined or processed, e.g. white bread whereas others are less refined, typically the wholegrains, e.g. wholegrain bread.

All carbohydrates will be broken down into simple 'glucose' or 'sugar' in our body. Simple/free sugars will break down quickly, whilst complex/ starchy carbohydrates will break down slowly.

This 'glucose' or 'sugar' is used as a source of energy by the body. On a day-to-day basis our bodies will use a combination of glucose, fats and proteins for energy, growth and repair.

Why do we need carbohydrates?

All carbohydrates will be converted to glucose, which is an important source of fuel. If we do not have enough carbohydrate in our diet, our bodies can convert fatty acids into 'energy' to meet the demands of our brain.

There are a lot of myths about not eating enough carbohydrate or not eating carbohydrate frequently enough.

Carbohydrate Myths...

Carbohydrates are fattening

All food contains energy, and excess of energy is related to weight gain. Carbohydrates requirements are directly related to our energy output.



As a society, our energy expenditure has changed, therefore our carbohydrate requirements have reduced, but they still remain an important part of a healthy balanced diet.

Can low carbohydrate diets help with weight loss?

Carbohydrate is stored in our muscles alongside water as glycogen. Drastic reduction in carbohydrate intake will lead to glycogen depletion and fluid loss. This is not the same as fat loss and not related to health or well-being.

Drastic reduction in carbohydrate intakes can affect our gut health and lead to constipation.

At the moment, there are no clear definitions on what 'low carbohydrate' diets are. Some people claim this is an effective method of weight loss, however for some people they are not sustainable. Most of the initial weight loss seen is often associated with water/fluid losses.

In general, it is a good idea to be aware of portion sizes of all foods including carbohydrate, however losing weight is complicated, and restricting any one food group (including carbohydrate) is generally not recommended for many reasons including dietary imbalance, contributing to complex relationships with food and compliance.

How much carbohydrate should we eat?

This is a question that confuses so many people. Whilst 'very low carbohydrate diets' are not generally recommended, as a nation our portion sizes have increased dramatically over the past 40 years. We should try to be 'carbohydrate aware', aiming to have appropriate portions of 'starchy carbohydrate' and choosing the less processed, wholegrain options to increase fibre intake where possible.

As a general rule, a portion about the size of your fist is an appropriate meal time portion of carbohydrate. This can then be adjusted depending on your activity levels. According to scientific experts around half of our energy intake should come from carbohydrate.

What does the Glycaemic Index of carbohydrates mean?

Different carbohydrate containing foods are digested and absorbed at different rates. The Glycaemic Index (GI) is used to identify which carbohydrates are quickly broken down to glucose (high GI) and which are slowly broken down (low GI). This is based on the concept that it is better to choose lower GI foods where possible. GI is well accepted as a way of judging the effect of carbohydrate containing foods on our bodies, however the methods used to measure it do not always appropriately represent the overall 'health benefits' of a food e.g. chips are a lower GI than boiled potato.

Free sugars

Free sugars are any sugars added to food (e.g. biscuits, chocolate, cake) or sugars naturally present in honey, syrups and fruit juices. There is a lot of media and public interest in 'sugar' and the sugar debate can be very confusing as sugar can be found in many foods. Recent recommendations have suggested that it is important to be aware of 'free sugars' and to limit our intake of these. It is recommended that adults consume no more

than 30g free sugar (approximately 7 teaspoons) per day. Make sure to be label aware as some carbohydrate foods (particularly processed items such as ready meals) can contain high levels of free sugars.

Where are free sugars found?

Table sugar, syrup, treacles, honeys, coconut sugar and fruit juice are all examples of free sugars.

What does not count as free sugar?

Natural sugars found in milk, whole fruit and vegetables (i.e. in their natural forms).

Summary

Foods that contain carbohydrates are an important part of our diets and can be included in as part of a healthy balanced diet. It is helpful to choose wholegrain 'starchy' carbohydrates as they contain additional important 'nutrients' for the body. As with any food, it is important to choose the correct portion to suit your needs and less active individuals require less carbohydrate. It's useful to be aware that 'free sugars' often provide lots of energy with very little nutritional value so these should be consumed in moderation.



Further information

Food Fact Sheets on other topics including Diabetes, Sugar, Glycaemic Index, Wholegrains, Food and Mood and Healthy Eating can be downloaded at:

www.bda.uk.com/foodfacts

Please note - **This is public health information for the general population, if you have Type 1 or Type 2 Diabetes, please see our food fact sheets on those conditions and discuss with your GP, dietitian, or diabetes nurse.**