



FACTSHEET

CARBOHYDRATES AND BLOOD SUGAR

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Low carb? No carb? Zero carb?

These are some of the latest 'faddy terms' that you might have seen or heard. Are carbohydrates really so bad for us? Can you eat carbohydrates while watching your weight? Why are carbohydrates linked with weight gain? Studies do show a link between excessive carbohydrate intake and weight gain.

What are carbohydrates?

Carbohydrates are natural products containing sugars and starches and consist of 3 or more sugar units linked together. These basic units are called glucose, fructose or galactose. Carbohydrates may or may not taste sweet!

Many foods contain carbohydrates in varying amounts such as:

- Cereals - wheat, rye, rice and their derivatives (pasta, flour etc)
- Sugars are a form of simple carbohydrate
- Fruits and vegetables also contain some carbohydrate
- Nuts, seeds, lentils and dried beans contain carbohydrate
- Dairy products contain carbohydrate in the form of lactose, a sugar found in milk products.

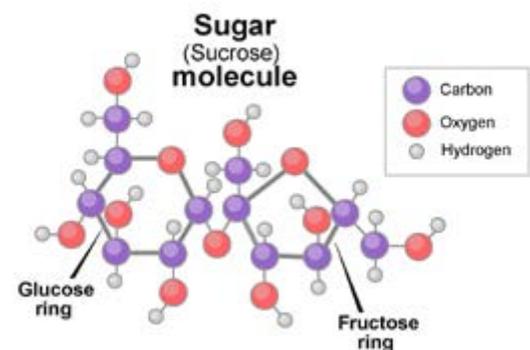
Note that generally when we talk about the 'carbohydrate food group' we are referring to foods which contain large amounts of carbohydrates, such as grains, sugar and potatoes. The only foods which do not contain any carbohydrates are fats and animal proteins.

Why are carbohydrates linked with weight gain?

Studies do show a link between **excessive** carbohydrate and weight

gain and this is due partly to the effect that certain simple carbohydrates have on blood sugar levels and also to the fact that it is 'oh so easy' to eat super sized servings of carbs.

Carbohydrates are known as 'simple' when they have been heavily processed and have had nutrients and fibre removed (think 'white' - rice, bread, pasta, sugar). Note that fibre is important for weight control, it helps to slow down the speed at which food is digested and helps to keep us feeling full longer.



So, can you have your carbs and eat them if you are trying to watch your weight?

We say yes!

Carbohydrates can be a good source of fibre (which helps to support digestive health) and an excellent source of B vitamins (needed to help produce energy for all processes in the body). Studies link an increased fibre intake with a lower risk of many diseases and carbohydrates also help (indirectly) to support healthy sleep and improve mood through their effect on serotonin levels. You just need to choose the right ones!



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- Choose 'brown' carbohydrates in preference to white ones
- Limit sugary carbs - desserts, cakes and biscuits should be limited to once a week and ideally with a meal in order to limit the impact on blood sugar levels
- Try not to eat carbs on their own even if they are 'brown' ones. Always try to eat them with a small amount of protein as protein foods help to balance blood sugar levels

**eg - yoghurt and fruit/fruit and nuts/
rice cakes and cottage cheese**



- Watch the serving size of your carbohydrate. A standard serving of carbohydrate is 100g cooked weight. If you are trying to control your weight, you may want to reduce the serving size to 75 g cooked weight, or 40g uncooked weight or 1 slice of whole wheat bread. You can also have some meals without carbohydrates and add in an additional vegetable or salad.

When you eat **simple carbohydrates** particularly on their own, they are digested very quickly. They are broken down to glucose molecules and released into the blood stream, temporarily raising blood sugar levels.

The **pancreas** responds by **releasing insulin**, a hormone which helps to lower blood sugar levels by moving glucose out of the bloodstream and into body cells where it is used for energy or stored for later use.

Sometimes **surges of insulin** are released in response to high blood sugar levels and this can result in too much sugar being transported to the cells from the blood stream. This can leave you with temporarily low blood sugar levels (**think tired, grumpy, hungry!**).

As a result you reach for a quick snack and the cycle starts all over again. The other problem from a weight loss perspective is that insulin is an **'anabolic'** hormone. This means it encourages **'storage'** or **'weight gain'** and releasing it throughout the day in large quantities does not help with weight control.

Example of a healthy carb and blood sugar balancing menu:

Breakfast

- Natural yoghurt, fruit and 10g raw nuts.

Lunch

- Hummus (2 tablespoons) with salad and 1 small whole wheat pita bread (40g).

Snack

- 1 rice cake with goat's cheese and cucumber sticks.

Supper

- Grilled Salmon, 75g cooked weight brown rice and stir fried vegetables.