

Carbohydrates

Myths & Facts

What Are Carbohydrates?

Carbohydrates are one of our three main sources of energy (sometimes called 'macronutrients'), along with protein and fats. Carbohydrates are broken down during digestion to form glucose and are converted by our cells into energy. Most people think of "carbs" as being breads, pasta, rice and so on, but actually, they are found in most of the foods we eat. There are 3 main types of carbohydrates, and they all form an important part of a healthy balanced diet:

- Sugars (as in honey, fruit, and milk) or added to foods (such as lollies)
- Starches (as in bread, pasta, cereal, potatoes)
- Dietary fibre (as in legumes, seeds)

What Does GI Mean?

The glycemic index (GI) tells us how fast or slow a particular type of carbohydrate is digested. Low GI foods are digested more slowly, whilst high GI foods result in faster changes in blood sugar and insulin levels. It's important to look at the overall nutritional value of a food, and focus on incorporating all foods in moderation, rather than getting too caught up in GI ratings, grams of carbohydrates or calories in foods.

Why Do We Need Carbohydrates?

Fuel for our Body and Brain: Carbohydrates are our body's most efficient source of energy because they are converted more easily into glucose than proteins or fats. Carbohydrates are an essential fuel source for our muscles, central nervous system, and brain. Since our brain cannot store glucose, it needs a regular, steady supply of carbohydrates throughout the day to ensure it works well.

Think of it like fuelling a car... except instead of filling up your car with petrol every week, we need to provide our body with carbohydrates *several times a day* to function best. If we don't eat enough carbohydrates, or go too long without them, it can make it difficult to concentrate properly, make decisions, plan ahead, or manage our emotions. Our brain needs fuel to do that complex work, and that fuel is carbohydrates!



Protection: Carbohydrates give us energy, and they also have an affect on how protein is used by the body. Having regular carbohydrates in your diet helps protect muscle tissue from being broken down for energy. This means that the protein that you eat can do its main job, which is building and keeping muscles strong, instead of being used for energy. This is important, as unnecessary muscle breakdown can release toxins into the blood and impact negatively on our kidneys. Carbohydrates also play a role in helping our immunity.

Digestion & Hydration: Carbohydrates encourage the growth of healthy bacteria in the intestines which supports digestion, reduces gut discomfort, and supports long term gastrointestinal health. Carbohydrates also help our bodies absorb water more effectively, which helps keep us hydrated.

Mood, Sleep & Appetite: Carbohydrates are directly linked to the release of serotonin in the brain. Serotonin is an important chemical ("neurotransmitter") that can impact our mood, sleep, and appetite. Having enough serotonin can help us feel more happy and content, improve our sleep, and allows us to feel more awake during the day. It also helps to regulate hunger and fullness signals, and allows people to experience that 'satisfied' feeling following a meal (which helps stop over-eating).

How Much Do We Need?

Carbohydrates should make up most of what we eat each day - about 40-60%. The amount of carbohydrates you need each day will depend on your age, sex, activity levels, and where you are at in your eating disorder recovery journey (e.g., if you are still growing and/or needing to reach your healthy weight range, you might need more). About one-third of your carbohydrate intake will come from low GI carbohydrates ("complex carbohydrates") like bread or rice. For tips about integrating carbohydrates into healthy, balanced and flexible eating, see our handout [Normal Eating](#).

Myths About Carbohydrates

Some people believe carbohydrates make you gain weight, or that "low carb diets" are the key to losing weight. These beliefs are usually based on "pseudoscience", and do not have a strong scientific research base (see our handout on [Interpreting Dietary Advice](#)). Cutting your carbohydrate intake may initially lead to some quick weight loss (due to fluid loss), less energy intake, and loss of muscle tissue. However, research shows these effects do not last and can harm our body in the long-term. Importantly, there is also no scientific evidence to show that eating carbohydrates in the evening causes weight gain. The body processes carbohydrates in the same way regardless of the time of day.

The Effect of Low Carbohydrate Intake

- Gut changes (constipation or diarrhoea) due to lack of starches or dietary fibre. Of note, *too much* fibre can result in gut discomfort, too. It is important to eat carbohydrates in different forms.
- Bad breath due to the release of ketones
- Fatigue, low energy, tiredness
- Mood swings, low mood, poor concentration
- Poor immunity
- Increased risk of health problems e.g., bowel cancer.