

Are carbs actually bad for you?

Diet fads have left most of us confused. Take carbohydrates, the stuff that potatoes, pasta, bread and sugary foods are made of. In the 1970s, these were blamed for being fattening. Then starchy carbs were rehabilitated and [health officials](#) advised that these should provide at least half our daily calories. Now, carbs seem to be the enemy again according to some. So, where does that leave us now?

Carbs in the news

[The Atkins](#), South Beach and, more recently, the Pioppi diet all recommend large reductions in carbohydrates. The idea looks sensible on paper. All carbs break down in the body to form sugars which boost blood glucose levels and cause our bodies to produce insulin.

As [insulin](#) is a storage hormone, this means that excess fat and carbs from the diet end up in our fat cells and liver for a rainy day. But, because people are typically sedentary, that rainy day never comes and we end up [overweight](#), or even diagnosed with [type 2 diabetes](#).

However, the reality is less clear, which has led to harsh words between advocates for low-carb diets and those who think we should follow official high-carb advice. So, what does the evidence say?

Following a low-carb diet may increase your risk of hypoglycaemia (low blood sugar) if you are taking medicines that carry a risk of hypoglycaemia (**insulin, sulfonylureas and glinides**). Do not reduce the carbohydrates in your diet without taking advice from your medical team if you use any of these medicines.

Carbs in research

Several studies have compared different carbohydrate diets for [type 2 diabetes](#) or weight loss but their results are not consistent. It's also worth noting that 'low-carb' can mean anything from a very low-carb 'ketogenic' diet, where your body is forced to burn protein and fat, to a diet where the carbs are only slightly lower than government recommendations.

Weight loss

Studies seem to show that low-carb diets produce faster weight loss in the short term but then perform the same as higher-carb diets.

A [meta-analysis](#) bringing together data from 447 patients found that those on low-carb diets lost an additional 3 kg (6 lbs) by six months compared to those on low-fat diets, but this difference had disappeared by a year. [Blood lipids](#), like triglycerides and 'good' HDL cholesterol, were better on the low-carb diet while total and 'bad' LDL cholesterol were lower on the low-fat diet.

Another [meta-analysis](#) in 1,569 patients found that a ketogenic diet delivered an extra 1 kg (2 lbs) weight loss at one year but there was no difference by two years compared with a low-fat diet.

While there are claims that very low-carb diets burn extra body fat, this wasn't seen in a carefully [controlled study in men](#) which actually found a slowing of fat loss and evidence of muscle protein breakdown when a ketogenic diet was followed. So the jury is still out on whether or not carb restriction delivers benefits for [long-term weight loss](#), although low-carb diets do better in the short term.

Dr Hunter Waldman from Mississippi State University says: "People need to find what works for them. If someone does not know where to start and they are sedentary, then I lean towards a lower-carbohydrate diet for the simple reason that carbohydrate is not essential and plays its main role as a source of energy. I find reducing carbohydrate, increasing protein and fibrous vegetables, as well as focusing on fats from lean meats, nuts, vegetables, and eggs tends to do just about everyone good. Carbohydrate intake should match activity output."

Children and adults with type 1 diabetes

People with [type 1 diabetes](#) require lifelong treatment with insulin, which carries a risk of [hypoglycaemia](#), or low blood sugar. Currently research into the [safety and effectiveness](#) of low-carb diets is not advanced enough to recommend that people with type 1 diabetes follow one, so it's best to stick with the plan advised by your care team.

Likewise, there is limited research on low-carb diets for children with type 1 diabetes, as well as [concerns](#) about an increased risk of growth problems, raised cholesterol, poor compliance, and negative effects on sport participation. This is why low-carb diets are [not recommended](#) for children with type 1 diabetes.

Type 2 diabetes

Seven out of ten people with type 2 diabetes are overweight or [obese](#), so reducing weight can be as important for long-term health as managing blood glucose levels.

Studies have shown similar benefits for high-carb versus low-carb diets in terms of weight control and glycosylated haemoglobin ([HbA1c](#)) – a blood marker of long-term glucose control. This included an [eight-week trial](#) in 12 patients, a [one-year trial](#) in 162 patients and a [two-year trial](#) in 115 patients. In the last one of these, patients following the very low-carbohydrate diet (less than half the carbs of a typical diet) were able to reduce their diabetes medication, which was an extra benefit.

It's important to point out that the high-carb diets in these studies were high in fibre with a low glycaemic index (GI) meaning that the carbohydrates had a slower impact on blood glucose levels. Eating a high-carb diet full of cakes, biscuits, sugar and soft drinks would not provide any beneficial effects.

In other research, low-carb diets had the edge. In a [one-year trial](#) in 34 adults, those that followed a very low-carb ketogenic diet had better blood sugar control, lost more weight and were able to reduce their diabetes medication compared with those following a moderate-carb, low-fat, reduced-calorie diet.

More evidence comes from reviews and meta-analyses which pool the results from similar studies. [One of these](#) found similar weight and HbA1c results for low-carb versus low-fat or low-GI. [Another](#) found better HbA1c results for several types of diets compared with 'usual care', including low-carb, low-GI and Mediterranean, with the best results overall seen for the Mediterranean diet.

Dietician [Paul McArdle](#) says: "There's no universal recommendation as yet for how much carbohydrate is best for type 2 diabetes, which is why we should take a whole diet approach and not just focus on single nutrients. As several types of healthy diet can produce favourable results, recommendations should be based on personal preference, individual glycaemic response and other health targets. Many dieticians are happy to help patients follow a lower-carbohydrate diet if they want to try it."

What's best for you?

Regardless of the media chatter about carbohydrates, the evidence shows that other diets work just as well, but only if overall calories balance your activity levels and you avoid swings in blood glucose. This can be done by eating three regular meals a day and keeping high-carb snacking to a minimum.

If you have type 2 diabetes and find that the standard high-carbohydrate diet isn't working, it is worth trying carbohydrate restriction. How low you go depends on your willingness to organise and plan meals, as the very low-carb ketogenic diets are highly restrictive, low in fibre, and could make socialising more difficult. High-protein foods, like meat and fish, are also more expensive than starchy foods. An expert group in England, headed by the [Scientific Advisory Committee on Nutrition](#), is currently examining carbohydrate restriction for type 2 diabetes so we should know more in 2019.

If you are trying to lose weight, the best choice of diet is one that you can stick to in the long term. If protein-rich foods are your thing and you can happily leave potatoes, bread, rice and pasta alone, give low-carb a try. But take care not to cut out [fibre](#), fruits and vegetables. Several good books are available to provide suitable meal plans. However, if you love your carbs, take heart that sticking to a low-GI, high-fibre diet that limits calories can still work in the long term.

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Last updated by: Dr Carrie Ruxton, PhD, Child Nutrition 06/02/2018	
Peer reviewed by: Dr Sarah Jarvis MBE, FRCGP 06/02/2018	

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