

What does ultra-processed food really do to our blood sugar?



Ultra-processed are designed to taste delicious. Created with high levels of fat, sugar, salt and industrially processed additives, it's no wonder we want to keep eating them. But what are these foods really doing to our bodies?

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--- The new landmark series [Australia's Health Revolution with Dr Michael Mosley](#) premieres Wednesday 13 October at 7.30pm on SBS and SBS On Demand. Join the conversation [#AusHealthRevolution](#) ---

We all know that if we want to maintain a healthy weight and prevent type 2 diabetes, that we should be a little more mindful when it comes to consuming certain foods and drinks.

It feels pretty simple, right? The idea that "bad food is bad" for our waistlines and blood sugar levels, so we should just stop eating it. So, why can't we?

The academic director of the [Charles Perkins Centre](#), Professor Stephen Simpson believes it's because 'bad food' is everywhere.

"These foods hit the bliss points of palatability by combining fat, sugar and salt together."

"What we have done in the processed food industry is set out to hack our biology to make these foods unnaturally palatable," says Prof Simpson, who appears in the landmark SBS documentary, [Australia's Health Revolution with Dr Michael Mosley](#).

The obesity expert explains that in western countries like Australia, unhealthy food is cheap, heavily marketed, abundant and intentionally created to hit our taste levels. "These foods hit the bliss points of palatability by combining fat, sugar and salt together."

Dr Michael Mosley believes you can reverse type 2 diabetes. Here's how

Trusted journalist and weight loss expert Dr Michael Mosley returns to SBS screens in October with a new message of hope for Australians with type 2 diabetes.

What are ultra-processed foods?

Many of these foods are considered '[discretionary foods](#)' because they don't fit into the five essential food groups, are nutrient-poor, high in fat, sugar or alcohol, and aren't necessary for a healthy diet. That's why they are labelled 'discretionary' as they are meant to be treats and not supposed to be consumed regularly as your main source of nutrition.

The list of discretionary foods features burgers and lollies, but also a few other unsuspecting culprits: homemade jams that are high in added sugar; quiches, salami, ghee and pastry that are higher in fat; and muesli bars that are higher in added sugar and fat.

Some discretionary foods will provide a double-whammy if they're also regarded as 'ultra-processed'. According to the [NOVA system of classifying processed foods](#), ultra-processed foods are made from industrially produced ingredients that can't be replicated at home.

That includes foods containing additives like colours, flavours, non-sugar sweeteners and processing aids.

Prof Simpson – who is also the executive director of Obesity Australia – tells SBS, ultra-processed foods are a major problem because they are typically full of sugar, fats and salt, and are low in protein and fibre.

Put simply: they are calorie-dense but don't fill you up very easily. "If you dilute protein in the food supply, then you force people to eat more calories to get enough protein [to meet the body's demand for it]."

As these foods taste so good, we're likely to want to them again and again – and so a cycle of poor eating over the long term begins.



Avoid mangoes and incorporate eggplants? What to eat (and avoid) if you have type 2 diabetes

"Keep in mind, lots of foods are fine if you're healthy, but not great if you have raised blood sugars or type 2 diabetes," says Dr Michael Mosley.

Why ultra-processed foods damage your body

Accredited Practising Dietitian, Selin Aydan reminds SBS that one or two ultra-processed treats shouldn't cause a healthy body too many issues. But, if you're consuming 'bad foods' regularly over a long period of time, you may develop a heightened risk of type 2 diabetes.

"Type 2 diabetes is not something you develop overnight," Aydan says. "It's something you've developed over years of poor eating habits."

[A 2019 study](#) published in *JAMA Internal Medicine* found that eating 10 per cent more ultra-processed foods increases your risk of developing type 2 diabetes by 15 per cent. "You can hit that 10 per cent mark by choosing to add one croissant in the morning and a soft drink to your diet later in the day."

Aydan explains why this is the case. "As soon as glucose enters the bloodstream, it's supposed to go into the cells or be stored away. Insulin acts like a key in our bodies: it unlocks your cells to allow glucose to enter."

However, after eating lots of ultra-processed food, your 'insulin key' may not work as well as it should. "It will only open the lock a little bit, and only a little bit of that glucose will be able to enter the cells."

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Over time, the effects may worsen. "The pancreas will lose up to 70 per cent of its ability to secrete insulin, which is needed to allow glucose into the cells to be utilised. So now, the pancreas isn't working [as it should] and insulin has become desensitised. That causes a lot of damage to your body."

Blood sugar fluctuations and physical inflammation may occur. "You can also get extreme tiredness because your body can't efficiently bring glucose into your cells. As you become more tired, you may crave more sugary, processed foods." It can be quite a cyclical process.

The long-term impact of poorly controlled blood sugar could result in [metabolic syndrome](#) – a collection of health issues that includes type 2 diabetes, high blood pressure, excess body fat around the waist and abnormal cholesterol levels.

People with [poorly managed type 2 diabetes](#) also face a greater risk of heart disease, nerve damage, [kidney failure](#), skin infections, blindness and foot issues leading to amputation.

"Keep discretionary and ultra-processed foods as treats instead of using them as your main source of nutrition. If you do that, everything else will follow."

It's never too late to change

Although the above scenario sounds disastrous, Prof Simpson insists it's never too late to improve your health.

He says you can take heart in the fact, "that you have an exquisite biology". Once you start eating well again, your appetite system, metabolism and gut microbiome may start to improve.

"Even if you've been eating poorly for years, your body is likely to still work and guide you to good health if you feed it properly. To feed it properly, you just need to go back to eating wholefoods.

"Keep discretionary and ultra-processed foods as treats instead of using them as your main source of nutrition. If you do that, everything else will follow."

This story contains general information only. Consult your doctor or medical professional for advice that is suited to your circumstances. If you need assistance with your diet or for dietary advice, always consult a GP, endocrinologist, diabetes educator or Accredited Practising Dietitian.

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