- Eating customs

# Why eating before bedtime is best avoided

The Sydney Morning Herald · 14 Sep 2026 · Damon Syson

We know eating a packet of chips or a bowl of ice cream before bed isn't great for our health, but avoiding those late-night snacks may be more beneficial than you realise. A recent study found that avoiding food in the hours before you go to bed may help to stave off cognitive decline in older age. Researchers studied 47 overweight or obese women aged 50 to 79, all of whom were asked to reduce their diet by 500 calories a day for six months: one group would eat over a 12-hour period and another would eat from 10am to 6pm.



Both groups lost an average of 7kg, but those who finished eating at 6pm performed better in spatial planning and problem-solving tests, and there was some evidence of improved memory and learning.

"This research adds to a growing body of evidence that the time of day that we eat our food matters as well as the eating window [the time between your first meal and your last]," says Sarah Berry, a professor of nutritional sciences at King's College London and chief scientist at nutrition data company Zoe.

Unfortunately, swapping biscuits or chips for something healthier might not be enough. One study published in the European Journal of Nutrition, found that snacking late at night was associated with unfavourable health outcomes such as increased body fat and blood sugars, even if people were eating healthy snacks.

Eating four hours before bed (around 6pm) gives your body enough time to fully digest food, cool down and begin its reparative processes. "Our bodies are finely tuned to operate on a roughly 24-hour cycle called our circadian rhythm," Berry says. "It governs all our bodily processes, from the gut to the brain and everywhere in between. Eating outside our natural rhythms is one of the reasons latenight eating can cause problems."

As the recent study demonstrates, eating your last meal earlier could protect against cognitive decline. "Although there's a limited amount of direct evidence," says Berry, "eating later in the evening might have a negative impact on brain health".

Eating later could disrupt the brain's signals, disrupt our sleep and stress hormones, as well as increase inflammation in the brain.

Eating late is also known to disrupt deep sleep, which is when our brains consolidate memories and clear out toxic waste that can lead to cognitive decline.

Deep sleep occurs only when the body cools sufficiently. If food is still being metabolised, this increases the core temperature, delaying or reducing the amount of deep sleep.

"We know from large population observational studies that people who eat later in the day are more likely to have higher blood pressure, potentially higher cholesterol, higher rates of type 2 diabetes," says Berry, all of which can increase the risk of vascular dementia.

"However, late eaters often have a less healthy diet quality, so it is difficult to tease apart the effects of a less healthy diet from the timing of eating on brain health until rigorous clinical trials have been conducted."

"Consistently eating late at night over many years is linked to disturbed sleep, greater body weight, disturbed metabolism, higher levels of inflammation and poorer blood lipid profiles, all of which can increase your chance of developing heart disease," says Berry.

"Specifically, studies show that levels of blood triglycerides (a type of fat) are higher after meals eaten late in the day compared to earlier in the day, and this may increase risk of heart disease."

Late eating also prevents blood pressure from dropping to the levels it normally would during sleep, causing strain on the heart.

There is growing evidence linking late eating to a higher risk of heartrelated diseases, such as stroke.

An ongoing study launched in 2009 in France, which published its findings in the medical journal Nature Communications in 2023, followed 103,389 adults who completed 24-hour dietary records over several years.

Research suggests that eating a heavy meal late at night can disrupt the gut microbiome and increase the risk of acid reflux. "Like the rest of your body, your gut microbiome also has a circadian rhythm," says Berry. "For instance, certain species [of gut bacteria] are busier during sleeping hours, cleaning up the mess left behind from the day.

"Eating late can interrupt their work, leaving their cleaning job undone."

Additionally, if the body expects food at a certain time, it releases digestive enzymes and stomach acid, but disrupting this rhythm can cause indigestion. There's also an increased risk of acid reflux: when you lie down after a meal, the stomach's contents push acid up into the oesophagus, causing heartburn.

"Because the gut microbiome plays such an important role in supporting and guiding the immune system, late-night eating may interrupt immune responses and promote systemic inflammation," Berry says.

Additionally, our immune system has a strong circadian rhythm, which if disrupted can cause lowgrade inflammation.

"We know that long-term inflammation underpins many chronic diseases [such as type 2 diabetes and cancer].

"However, we need more clinical trial data to piece together the multiple complex systems at play to determine if there is a direct effect of late-night eating on immune and inflammatory responses," Berry says.

"There is good evidence suggesting that eating late at night is associated with an increased risk of weight gain and obesity," says Berry. "Interestingly, the same meal eaten later in the day has

been shown to induce less fullness hormones compared to if eaten earlier in the day.

"This is likely to be due to how metabolism works differently across the day, dysregulation of appetite hormones, and the gut microbiome."

Similarly, evidence suggests that people who eat more of their calories earlier in the day are more likely to lose weight than those who eat more calories later in the day, even if their overall caloric intake is the same.

"For many of us, though," says Berry, "if there is a link between late-night eating and our weight, it may have more to do with what, how and why we're eating at those times, rather than the when – and the fact that late night eating impacts sleep, which also indirectly impacts our weight."