IS COFFEE GOOD FOR YOU?

Recent research suggests coffee might provide a range of diverse health benefits. As a plant food, [coffee is rich in a number of bioactive constituents](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4045301/#:~:text=It%20is%2C%20therefore%2C%20the%20aim,acid%2C%20diterpenes%2C%20and%20trigonelline), the most well-known being caffeine. It’s this stimulant that attracts most attention when we talk about coffee – particularly around how it can increase alertness and [how much is too much.](https://www.bbcgoodfood.com/health/nutrition/spotlight-caffeine)

WHAT IS COFFEE?

Coffee is a brewed drink enjoyed by millions, made from roasted coffee beans taken from the berries of the Coffea plant. There are two main species of coffee beans – arabica and robusta. The type of bean, as well as where they were grown (country of origin and the altitude), the processing method and age of the beans all determine the taste of the coffee in your cup.

Coffee health benefits may include:

May help you live longer

May improve mental agility

May improve energy levels and enhance performance.

May boost metabolism.

May protect brain health.

May help with blood sugar balance.

May sharpen exam performance

May support gut health

May support digestive transit

May support mood and reduce depression

NUTRITIONAL BENEFITS OF COFFEE

Coffee is rich in plant defence chemicals called polyphenols these have a protective, antioxidant effect. [Organic fresh](https://pubmed.ncbi.nlm.nih.gov/32290140/) (beans or ground) coffee is best as it has a higher antioxidant content, with [light or medium roast](https://pubmed.ncbi.nlm.nih.gov/29265388/) blends preferable to dark. [How long the beans have been stored](https://link.springer.com/article/10.1007/s00217-019-03388-9) will also influence their polyphenol levels, with a reduction seen in coffee beans stored for 12 months or longer.

TOP 10 HEALTH BENEFITS OF COFFEE

May help you live longer

A huge study (of half a million Europeans) suggests that having [three cups of coffee per day may lengthen lifespan](https://www.imperial.ac.uk/news/180494/drinking-coffee-reduces-risk-death-from/). The effect is thought to be due to lowering the risk of death from several conditions, including heart disease. The mechanism and [effect of coffee’s](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5611980/) influence on ageing is not yet fully understood and more studies are needed.

May improve mental agility

Coffee may help some people [maintain alertness and energy levels](https://link.springer.com/article/10.1007/s002130000383) thanks to its caffeine content. When coffee is consumed, it is absorbed into the bloodstream and travels to the brain where it ‘fires up’ certain neurons which may improve memory, mood, energy and cognitive function, when consumed in moderation. It does this by blocking the receptors of a brain chemical called adenosine, which increases levels of other brain chemicals (including [dopamine](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7132598/)) that help regulate your energy levels and sharpen your focus.

May improve energy levels and enhance physical performance

Other reports suggest drinking coffee before exercise may reduce rates of exertion, [sense of effort](https://pubmed.ncbi.nlm.nih.gov/20888549/) and potentially [improve athletic performance](https://onlinelibrary.wiley.com/doi/10.1111/j.1600-0838.2005.00445.x/abstract). A small 2017 study found that consuming caffeine [extended the time to exhaustion](https://pubmed.ncbi.nlm.nih.gov/27864638/) during a cycling exercise by as much as 12 per cent and significantly reduced subjective levels of fatigue in participants.

If you already consume caffeine as part of your regular diet, you can use it in addition to carbs to boost energy and fuel your exercise. Check out some of the commercially available sports drinks and gels that contain caffeine.

May boost metabolism

[Research](https://pubmed.ncbi.nlm.nih.gov/27824614/) findings suggest that caffeine improves weight management through [boosting metabolic rate](https://www.ncbi.nlm.nih.gov/pubmed/2912010) and [reducing fat storage](https://pubmed.ncbi.nlm.nih.gov/27824614/) and [influencing energy intake](https://pubmed.ncbi.nlm.nih.gov/33992045/).

As a result, researchers have speculated that caffeine may show promise in the [treatment of obesity](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6467726/#:~:text=Caffeine%2Dinduced%20changes%20in%20thermogenesis,may%20also%20affect%20metabolic%20efficiency.&text=Caffeine%20affects%20not%20only%20energy%20balance%20but%20also%20exercise%20endurance%20and%20performance.), although more studies are needed.

May protect brain health

There have been numerous studies examining a link between drinking coffee and [protection against neurodegenerative diseases](https://pubmed.ncbi.nlm.nih.gov/24278543/) such as dementia and Alzheimer’s. However, findings to date [have been inconsistent](https://www.alzheimers.org.uk/info/20010/risk_factors_and_prevention/145/caffeine) and larger studies, with longer follow-up periods, are required.

May help with blood sugar balance

At moderate levels, coffee may [lower the risk](https://link.springer.com/article/10.1007/s00125-009-1516-3) of developing type 2 diabetes, although more research is needed. One explanation for this is thought to be due to coffee’s ability to preserve the function of the beta cells in your pancreas. These cells are responsible for producing the [hormone insulin](https://pubmed.ncbi.nlm.nih.gov/33807132/) that regulates blood sugar levels.

May sharpen exam performance

Coffee may help [boost concentration](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5107567/) and mood during non-optimal times of the day such as in the early morning. This may be helpful for those [stressed by exams](https://pubmed.ncbi.nlm.nih.gov/20182043/) and especially so if the exam is scheduled to take place in the morning.

May support gut health

You probably didn’t realise that coffee is a source of soluble fibre and is rich in compounds that have [prebiotic properties.](https://www.bbcgoodfood.com/health/wellness/what-are-probiotics-and-what-do-they-do) This means that coffee acts as a fuel source for the beneficial bacteria that reside in your gut, known as the [gut microbiota](https://pubmed.ncbi.nlm.nih.gov/33992045/). These bacteria play a role in our [immune function](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4528021/#:~:text=The%20normal%20gut%20microbiota%20imparts,shaping%20the%20normal%20gut%20microbiota.), nutritional status and help maintain the structural integrity of the gut wall. Studies also suggest that regular caffeine drinkers have a [more diverse gut microbiome](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10096519/#:~:text=Our%20study%20showed%20that%20higher,with%20higher%20microbial%20alpha%20diversity.).

May support digestive transit

Caffeine acts as a [stimulant to the colon](https://pubmed.ncbi.nlm.nih.gov/9581985/#:~:text=Conclusion%3A%20Caffeinated%20coffee%20stimulates%20colonic,23%25%20stronger%20than%20decaffeinated%20coffee.), with an effect similar to that of a meal. This effect seems to take place [within 30 minutes](https://gut.bmj.com/content/31/4/450.long) of consumption and suggests a possible use for those who struggle to achieve regular bowel movements.

May support mood and reduce depression\

Several studies suggest drinking coffee and consuming caffeine may be linked to a[lower risk of depression](https://pubmed.ncbi.nlm.nih.gov/26339067/) and could even [lower the risk of suicide](https://pubmed.ncbi.nlm.nih.gov/23819683/).

IS COFFEE SAFE FOR EVERYONE?

[Caffeine is a stimulant](https://pubmed.ncbi.nlm.nih.gov/28603504/) to which we all react differently, dependent on our genetic make-up. Drinking high amounts, for example in excess of six cups, may cause agitation and anxiety for some people. People who drink a lot of caffeinated drinks may report dizziness, tremors and an inability to sleep well.

Those who drink a lot of coffee every day may need to drink more to achieve a stimulant effect and may experience withdrawal symptoms if they suddenly stop. A number of [factors](https://pubmed.ncbi.nlm.nih.gov/29514871/) influence how well you process caffeine: your genes, age, gender, whether you are overweight or a smoker and whether you have liver disease.

Other considerations include:

* Caffeine [acts as a diuretic](https://www.nhs.uk/Livewell/Goodfood/Pages/water-drinks.aspx) which may cause the body to produce urine more quickly.
* In the UK, the NHS advise pregnant women to [limit their caffeine intake](https://www.nhs.uk/chq/pages/limit-caffeine-during-pregnancy.aspx?categoryid=54&subcategoryid=130) to 200mg per day – equivalent to two mugs of instant coffee.
* Due to their lower body weight and size, children may experience greater effects from caffeinated drinks.
* Certain medications may interact with caffeine, one example being [alendronic acid](https://pubmed.ncbi.nlm.nih.gov/7554702/%22%20%5Ct%20%22_blank) – when consumed with a caffeinated drink this medication may be less effective.
* If you experience ‘heartburn’, you should be aware that coffee [promotes gastro-oesophageal reflux](https://pubmed.ncbi.nlm.nih.gov/10499460/#:~:text=Conclusions%3A%20Coffee%20promotes%20gastro%2Doesophageal,contraction%20and%20colonic%20motor%20activity.) because it stimulates gastric acid secretion.
* Coffee induces bile release and gallbladder contraction which explains why those with [gallstones should typically avoid drinking it](https://pubmed.ncbi.nlm.nih.gov/10499460/#:~:text=Conclusions%3A%20Coffee%20promotes%20gastro%2Doesophageal,contraction%20and%20colonic%20motor%20activity.).

If you are concerned about your caffeine intake or you take medication which may interact with caffeine, ask your GP for advice.

HOW MUCH COFFEE IS TOO MUCH?

The ‘right’ daily amount of caffeine for adults varies depending on your individual metabolism, which is in turn influenced by genetics. This means that we all respond to caffeine in different ways. However, a moderate daily caffeine intake at a dose level up to 400mg/day is considered safe for most people – this roughly equates to four cups of brewed coffee. This may vary significantly, for example pregnant women should consume no more than 200mg/day, and children no more than 45mg-100mg/day.

SUMMARY: SO IS COFFEE GOOD FOR YOU?

Overall, consuming a moderate amount of coffee a day is believed to help protect against heart disease, type-2 diabetes and neurodegenerative conditions, as well as boosting energy levels and metabolism. However, each of us has a unique reaction to caffeine, and the amount we may safely consume will vary. Contact your GP if you are concerned that your caffeine intake is too high.