

Caffeine: How quitting can benefit your health

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Caffeine is the [most consumed psychoactive compound](#) in the world. Even if you don't drink coffee or tea, you probably still regularly consume caffeine since it's found in everything from [fizzy drinks](#) and [cold remedies](#) to [decaf coffee](#) and [chocolate](#).

When [caffeine](#) is consumed, it's rapidly absorbed by the body—reaching peak effects [within two hours](#) (though it may take up to [nine hours](#) to leave your body). It's also water and fat soluble, so it gets into all [body tissues](#), which explains why caffeine can affect many different parts of the body.

It's recommended that adults consume no more than [400mg of caffeine a day](#) (approximately four cups of coffee). More than this may lead to muscle tremors, nausea, headaches, pounding heart and even [death](#) (in extreme cases).

But even people who only consume a couple cups of coffee or tea daily may feel it still has [adverse effects](#)—such as irritability, difficulty falling asleep and feeling jittery. This is why a growing number of people are deciding to give up caffeine.

If you're thinking about giving up caffeine and are wondering what benefits it may have, here's what the research says,

Brain function

Caffeine withdrawal can cause headaches, fatigue and tiredness. This is because the body develops a tolerance to caffeine.

Caffeine binds to a receptor in the brain used by [adenosine](#). The binding of caffeine to these receptors causes the body to [delay the onset of fatigue](#). But over time the [brain cells](#) produce [more adenosine receptors](#) to enable normal adenosine binding to happen.

So, when you stop consuming caffeine, there are excess [adenosine receptors](#) to bind to. This allows fatigue and tiredness to kick in as normal, with the person feeling more tired than before.

Headaches happens as a result of the absence of caffeine. In the head and neck, caffeine causes the [blood vessels](#) to narrow, reducing [blood flow](#) to the brain. When you stop drinking caffeine, after approximately 24 hours it causes the [blood vessels to return to normal](#), causing an [increase in blood flow](#) to the brain and triggering headaches. They may last up to [9 days](#) on average.

And because caffeine binds to adenosine receptors (which also modulate pain) quitting caffeine may temporarily [increase your perception and sensitivity](#) to pain because there's more receptors available.

Caffeine really only affects sleep when consumed in the late afternoon and evenings. This is because caffeine delays the release of [melatonin](#) (a hormone which makes us tired) by [40 minutes](#). Caffeine also reduces the overall [time you sleep](#) and shortens the period of [deep sleep](#).

This can increase your tiredness the next day, leading to cycle of using caffeine to wake you up but having trouble sleeping later on as a result. When you stop caffeine, you may find your sleep improves. Some evidence suggests improvements are seen in as little as [12 hours](#).

Caffeine has also been linked to increased [anxiety and panic attacks](#)—and not just in those with a pre-disposition to mental health issues. Reducing or eliminating caffeine may improve your mood. This may

partly be because it improves sleep. Sleep deprivation can [exacerbate anxiety](#) and other [mood disorders](#).

But the adenosine receptors that caffeine bind to are also involved in the modulation of other neurotransmitters that have a role in [stress](#), [happiness](#) and [fear](#).

Cardiovascular health

Reducing or eliminating caffeine might also cure heartburn and indigestion. Caffeine [induces acid secretion](#) in the stomach and weakens the esophageal sphincter, which controls reflux of stomach contents up the esophagus—triggering heartburn and indigestion.

Quitting caffeine may also lower your [blood pressure](#) and reduce your [heart rate](#)—although other studies have shown [little change](#).

This is because if someone consumes caffeine daily for many years, their body adapts to the exposure—and it becomes the new norm with its stimulant effects on the nervous system, bowels and heart.

There also appears to be [genetic component](#) to caffeine tolerance and metabolism. This could mean some people are more affected by caffeine over others—though more research is needed on this link.

A brighter smile

Cutting out caffeine may improve the whiteness of your teeth—not because of caffeine directly, but because [tea](#) and [coffee](#) contain compounds including tannins that [stain teeth](#).

Sugar in [energy drinks](#) can also cause damage to your teeth. Quitting

may help protect them. Evidence also suggests caffeinated drinks may [reduce the amount of saliva](#) you produce, which normally protects our teeth from damage.

You may also find that you have an increased sensitivity to the taste of sweet food and drinks after quitting, as caffeine interferes with the [tasting of sweet substances](#).

Going to the toilet less

Caffeine acts on the smooth muscle of the intestines, particularly in the colon, causing them to contract and trigger [the urge to poo](#). Caffeine can also change the consistency of your poo—especially if you drink too much, as caffeine affects [water absorption](#).

Reducing caffeine intake may cause a less frequent urge to poo—and the consistency of your stools may change.

Caffeine also acts as a mild diuretic, causing an [increase in urine production](#). This is because caffeine binds the adenosine receptors in the kidney, which alters how sodium is exchanged, affecting water retention. There's also evidence caffeine is a [bladder irritant](#), which can cause a more [frequent urge](#) to urinate. Quitting caffeine may decrease your daily toilet visits.

Moderate consumption

As with many things, it's about moderation.

But if you're seriously considering removing caffeine from your diet, the best way to do so is gradually. Going "cold turkey" will bring on side effects such as headaches and tiredness which can last [two](#) to [three](#)

weeks.

How severe and long-lasting these are depends on how much caffeine you've consumed per day and how long your habit has been going.

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