DIET & WEIGHT

What Coffee Is Actually Doing to Your Body

From the first alert lift to the shaky aftermath, here is how caffeine moves through your day-and when your cup deserves a second look.

The lift is real

You take the first sip because you are not quite ready for the day, but the day has started anyway. Soon, the distance between you and the task in front of you seems to narrow. That shift is not imaginary. Coffee contains caffeine, a stimulant that acts on your central nervous system, making you feel more awake and giving you a lift in energy.

The effect does not arrive all at once. According to MedlinePlus, caffeine reaches its peak level in your blood within an hour of eating or drinking it. You may continue to feel its effects for four to six hours. The coffee you barely remember drinking can therefore remain part of your afternoon-or your night-long after the cup is empty.

That timeline helps explain why coffee can feel useful and inconvenient on the same day. The alertness you wanted may persist beyond the moment when you wanted it. If you already have insomnia or another sleep disorder, MedlinePlus advises checking with a health care provider about whether caffeine should be limited or avoided.

Caffeine is not exclusive to coffee. It occurs naturally in coffee beans, tea leaves, kola nuts and cacao pods, and synthetic caffeine is added to some medicines, energy drinks, gums and snacks. If you are trying to understand what caffeine does to you, the coffee cup may be only part of the picture.

Your stomach and circulation notice too

The wakeful feeling gets most of the attention, but caffeine does not confine itself to alertness. MedlinePlus says it increases the release of acid in your stomach. For some people, that can mean an upset stomach or heartburn rather than a clean burst of concentration.

Caffeine also increases blood pressure. That matters especially if you already have high blood pressure, an arrhythmia or a problem with the rate or rhythm of your heartbeat. Those are among the conditions for which MedlinePlus recommends discussing caffeine with a health care provider rather than treating the question as a simple matter of preference.

Then there is the trip to the bathroom. Caffeine is a diuretic, meaning it helps your body

remove extra salt and water through urination. Too much caffeine can be associated with dehydration, and the CDC also lists dehydration among the concerns when caffeine and alcohol are combined.

MedlinePlus notes another less obvious effect: caffeine may interfere with calcium absorption. The source does not tell you that one cup will produce a particular health outcome, and it would be misleading to pretend otherwise. It does show why "coffee wakes you up" is only the first line of the story, not the whole of it.

A reassuring general limit is not a promise of comfort.

One cup is not one fixed thing

A cup is a familiar object, not a reliable unit of caffeine. MedlinePlus estimates that an eight-ounce coffee may contain 95 to 200 milligrams. That is more than a twofold range before you consider caffeine coming from tea, cola, medicines, chocolate products or energy drinks.

For most people, MedlinePlus says consuming up to 400 milligrams of caffeine in a day is not harmful. But that broad statement comes with two important qualifications: caffeine content varies substantially, and people differ in their sensitivity. The number cannot tell you exactly how your sleep, stomach, heart rate or anxiety will respond.

Too much may show up as restlessness, shakiness, insomnia, headache, dizziness, anxiety or a fast heart rate. These effects can overlap with the very state that sends you back for more coffee: you feel tired, distracted or unsteady, and another caffeinated drink seems like the obvious answer.

The harder truth is that your body may not respond to caffeine the same way another person's does. A reassuring general limit is not a promise of comfort. Your own pattern-especially sleep disruption, anxiety, heartburn or a racing heart-deserves more weight than somebody else's ability to drink coffee without noticing much at all.

The bargain can change

With regular caffeine use, the lift may become less straightforward. MedlinePlus lists dependency as a possible consequence of too much caffeine: you may need more to get the same result. At that point, coffee may feel less like an optional advantage and more like the price of reaching your usual level of alertness.

Stopping suddenly can bring its own collection of effects. Caffeine withdrawal may cause

headaches, drowsiness, irritability, nausea and trouble concentrating. MedlinePlus says these problems usually go away after a couple of days, but while they are happening, they can make your old routine look like the only workable one.

This is where self-judgment is especially unhelpful. The discomfort is a recognized response to suddenly stopping regular caffeine use, not proof that you lack discipline. It also means that a bad day without coffee does not, by itself, reveal what life with less caffeine would eventually feel like.

For some people, this stops being merely a lifestyle calculation. Pregnancy and breastfeeding can change the conversation because caffeine passes through the placenta and a small amount can pass to a nursing baby. Children and teenagers can be especially sensitive. Migraines, chronic headaches, anxiety, ulcers, GERD, high blood pressure, arrhythmia and certain medicines or supplements are also reasons to involve a health care provider.

Coffee cannot sober you up

The most dangerous caffeine myth appears when alcohol is involved. Caffeine can make you feel alert, but the CDC is unequivocal: it does not reduce alcohol's effects on your body. Feeling more energetic is not the same as being less impaired.

That mismatch can have consequences. You may feel as though alcohol is affecting you less and drink more, while your motor coordination and reaction time remain impaired. The CDC says mixing alcohol and caffeine can lead to more drinking, injury and other health risks, including higher blood pressure, irregular heartbeat and dehydration.

Energy drinks sharpen the problem because their caffeine content varies widely and may not be easy to identify. The National Center for Complementary and Integrative Health reports that energy drinks may improve alertness and reaction time, but may reduce hand steadiness. Evidence for improved endurance exists, while evidence for greater muscle strength or power is weaker.

So, for the next week, pay attention to the entire caffeine trail rather than blaming or praising a single cup. Notice the coffee, tea, cola, energy drinks, caffeinated medicines and chocolate products in the same frame. Connect them with what follows: alertness, bathroom trips, heartburn, shakiness, anxiety or lost sleep.

If a fast or irregular heartbeat, persistent sleep trouble, worsening anxiety or another concerning reaction is entering the picture, this is no longer a contest between willpower and coffee. Bring it to a health care provider, particularly if you have one of the conditions or take one of the medicines MedlinePlus flags. Your next cup is a choice, but it is also information.

Where this comes from

- Caffeine

  MedlinePlus, U.S. National Library of Medicine · https://medlineplus.gov/caffeine.html
- Energy Drinks (Caffeine section)

  National Center for Complementary and Integrative Health · https://www.nccih.nih.gov/health/energy-drinks
- Effects of Mixing Alcohol and Caffeine

  Centers for Disease Control and Prevention · https://www.cdc.gov/alcohol/about-alcohol-use/alcohol-caffeine.html
- Intermittent fasting strategies and their effects on body weight and other cardiometabolic risk factors: systematic review and network meta-analysis of randomised clinical trials.

  BMJ (Clinical research ed.), 2025 · https://pubmed.ncbi.nlm.nih.gov/40533200/