The Effects of Caffeine on Your Body

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healthline

Many of us rely on a morning cup of coffee or a jolt of caffeine in the afternoon to help us get through the day. Caffeine is so widely available that the U.S. Food and Drug Administration (FDA), says about 80 percent of U.S. adults take some form of caffeine every day. But caffeine does so much more than just keeping you awake. It's a central nervous system stimulant that affects your body in numerous ways.
Knowing the symptoms of caffeine and its long-term effects on your body may make you think twice about having that fourth cup of coffee. Read on to learn more about these effects.

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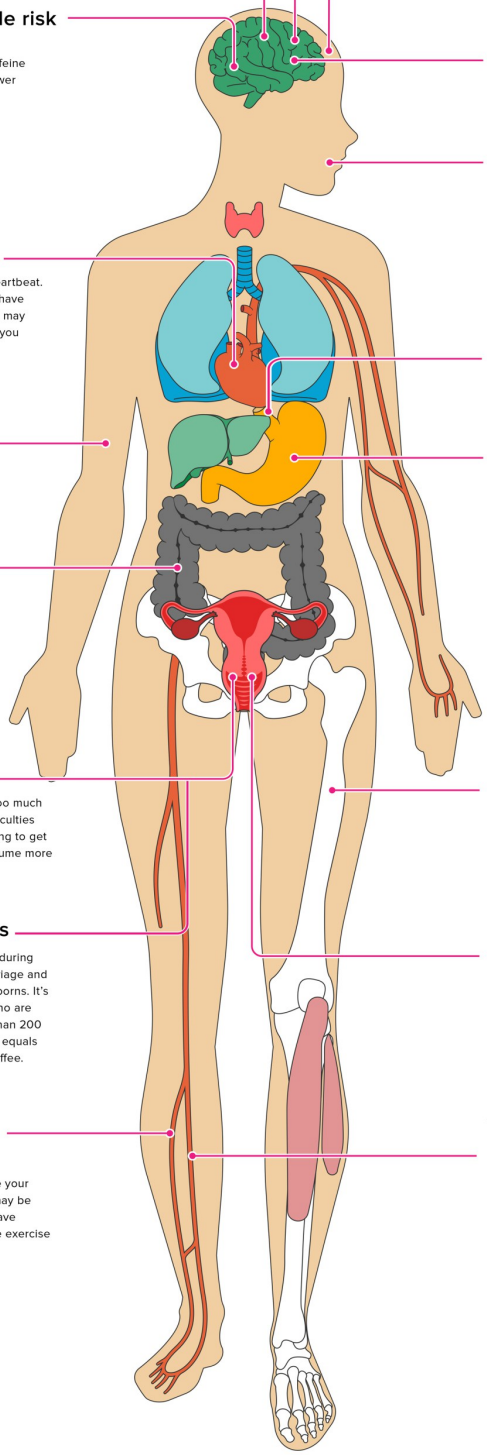

alert brain

The stimulating effects of caffeine cause alertness right away. It can also temporarily relieve drowsiness and fatigue.

decreased suicide risk

One study found that the mood-enhancing effect of caffeine was linked to a 45 percent lower risk of suicide in participants.

rapid heartbeat

Caffeine can cause a rapid heartbeat. This may be a concern if you have a preexisting heart issue. You may notice arrhythmias whenever you have caffeine.

muscle aches

Muscle aches could be a sign of caffeine withdrawal.

diarrhea

Caffeine can help keep you regular, but too much can cause opposite effects like diarrhea.

fertility issues

Some women who consume too much caffeine might experience difficulties getting pregnant. If you're trying to get pregnant, it's best not to consume more than 300 mg per day.

pregnancy issues

Overconsumption of caffeine during pregnancy may cause miscarriage and developmental issues in newborns. It's recommended that women who are pregnant consume no more than 200 mg of caffeine per day, which equals about one 12-ounce cup of coffee.

increased blood pressure

Caffeine can temporarily raise your blood pressure. The effects may be especially noticeable if you have caffeine during or right before exercise or other physical activity.

confusion

Too much caffeine can overstimulate the brain, leading to confusion.

headaches

A headache can occur from either too much caffeine or as a symptom of caffeine withdrawal. But in small amounts, it may relieve symptoms of a hangover.

irritability

When your body is used to caffeine, you can experience irritability as a symptom of withdrawal.

decreased risk of oral cancer

Drinking four or more 8-ounce cups of caffeinated coffee may lower your risk for oral and throat cancers.

heartburn

The acidity of certain caffeinated products, such as coffee and soda, may cause heartburn.

nausea and vomiting

Nausea and vomiting are symptoms of having too much caffeine.

caffeine in the bones

Caffeine prevents calcium absorption in the bones, increasing your risk of osteoporosis. As you get older, your bones may break more easily.

increased urination

You may urinate more when you have caffeine. Long-term use of high amounts of caffeine may increase bladder instability, and worsen the risk for those already experiencing bladder problems.

jitters

If you're not used to it, caffeine can give you the jitters. If you have an anxiety disorder or sleep disorder, caffeine may make it worse.

Caffeine provides no nutritional value on its own. It's tasteless, so you won't necessarily know if it's in your food either. Even some medications may contain caffeine without your knowledge. This ingredient almost always causes some symptoms. At a minimum, you may feel more energetic, but over time, too much caffeine may cause withdrawal symptoms. According to the Mayo Clinic, it's safe for most healthy adults to consume up to 400 milligrams of caffeine per day. Keep in mind that a standard size cup of coffee is eight ounces. If you're using a mug or getting your fix at a coffee house, chances are you're drinking 16 ounces or more, so reading labels is important.

As you consume the same amount of caffeine on a daily basis, your body develops a tolerance to it. Other factors like your age, body mass, and overall health can determine your tolerance to caffeine, too. If you want to decrease the amount of caffeine you take it's best to decrease your consumption slowly.

Central nervous system

Caffeine acts as a central nervous system stimulant. When it reaches your brain, the most noticeable effect is alertness. You'll feel more awake and less tired, so it's a common ingredient in medications to treat or manage drowsiness, headaches, and migraines.

Studies have also found that people who drink coffee regularly have a lower risk of developing Alzheimer's and dementia, and cut suicide risk by 45 percent. These benefits are limited to people who drink high-octane coffee, not decaf. Some people consider coffee to be a health drink, but like most foods, over indulging can cause side effects.

For example, too much caffeine can give you headaches. This is primarily linked to caffeine withdrawal. The blood vessels in your brain become used to caffeine's effects so if you suddenly stop consuming caffeine, it can cause a headache.

Other symptoms of caffeine withdrawal include:

- Anxiety
- Irritability
- Drowsiness

In some people, sudden withdrawal may cause tremors.

Although it's extremely rare, it's also possible to overdose on caffeine. Symptoms of an overdose include:

- Confusion
- Hallucinations
- Vomiting

An overdose can result in death due to convulsions. Overdosing happens by consuming large amounts of caffeine, most often in energy drinks or diet pills. Up to 400 milligrams of caffeine is considered to be safe, according to the Mayo Clinic. This equals about 4 cups of coffee, although the amount of caffeine in beverages varies widely.

Digestive and excretory systems

Caffeine increases the amount of acid in your stomach and may cause heartburn or upset stomach. Extra caffeine doesn't get stored in your body either. It's processed in the liver and exits through your urine. This is why you might have an increase in urination shortly after having caffeine.

If you have experience stomach problems, like acid reflux or ulcers, ask your doctor if it's okay for you to have caffeine.

Circulatory and respiratory systems

Caffeine is absorbed from your stomach. It reaches its highest levels in your bloodstream within an hour or two.

Caffeine can make your blood pressure go up for a short time. This effect is thought to be attributed to either an increase in adrenaline or a temporary block on the hormones that naturally widen your arteries. In most people, there is no long-term effect on blood pressure, but if you have irregular heart rhythms, caffeine may make your heart work harder. If you have high blood pressure (hypertension) or heart-related problems, ask your doctor if caffeine is safe for you to consume.

An overdose of caffeine may cause rapid or irregular heartbeat and breathing trouble. In rare cases, caffeine overdose can result in death due to convulsions or irregular heartbeat.

Skeletal and muscular systems

Caffeine in large amounts may interfere with absorption and metabolism of calcium. This can contribute to bone thinning (osteoporosis). If you consume too much, caffeine may cause also your muscles to twitch.

If experiencing caffeine withdrawal, a symptom may include achy muscles.

Reproductive system

Caffeine travels within the bloodstream and crosses into the placenta. Since it's a stimulant, it can cause your baby's heart rate and metabolism to increase. Too much caffeine can also cause slowed fetal growth and increased risk of miscarriage. In most cases, a little caffeine is safe during pregnancy. According to the Mayo Clinic, you should limit caffeine consumption between 200 and 300 milligrams per day if you're trying to get pregnant. There's some evidence that large amounts of caffeine can interfere with the estrogen production and metabolism needed to conceive.