

Caffeine: How much is too much?

In less than an hour you start to feel caffeine's effects. You're more alert, energetic and productive. Your mood lifts and that foggy, tired feeling is gone. If you rely on daily doses of caffeine to chase away fatigue and perk up your disposition, you aren't alone. Nine out of 10 Americans consume some type of caffeine regularly, making it the most popular behavior-altering drug. For most people, moderate doses of caffeine — 200 to 300 milligrams (mg), or about two to three cups of brewed coffee a day — aren't harmful. But some circumstances, such as caffeine sensitivity or use of certain medications, may warrant limiting or even ending your caffeine routine. Find out if you need to decaffeinate your diet and, if so, how you can do it with minimal distress.

When to cut caffeine use

Certain circumstances call for reducing the amount of caffeine you consume. Evaluate your habits. If any of these situations apply, you may need to cut back.

You consume unhealthy amounts

Though moderate caffeine intake isn't likely to cause harm, too much can noticeably affect your health. Heavy daily caffeine use — more than 500 to 600 mg a day, or about four to seven cups of coffee — can cause:

- Restlessness
- Anxiety
- Irritability
- Muscle tremors
- Sleeplessness
- Headaches
- Nausea, diarrhea or other gastrointestinal problems
- Abnormal heart rhythms

You have caffeine sensitivity

If you're susceptible to the caffeine's effects, just small amounts — even one cup of coffee or tea — may prompt unwanted results, such as anxiety, restlessness and irritability. The more sensitive you are to caffeine, the less you need to consume before feeling its influence.

Your sensitivity depends on many factors, including:

- Body mass. People with smaller body masses feel the effects of caffeine sooner than those with larger body masses.
- History of caffeine use. People who don't regularly consume caffeine tend to be more susceptible to its negative effects than are people who do.
- Stress. All types of stress — for example, psychological stress or heat stress — can increase a person's sensitivity to caffeine.

Other factors can contribute to variations in caffeine sensitivity as well, including age, smoking habits, drug or hormone use, and other health conditions, such as anxiety disorders.

You're not sleeping well

Most adults need seven to eight hours of sleep each night. But caffeine can interfere with this much-needed sleep. Chronically losing sleep — whether it's from work, travel, stress or too much caffeine — results in sleep deprivation. Sleep loss is cumulative, and even small nightly decreases can add up and disturb your daytime function. Sleep deprivation can cause impaired memory, mood swings, lack of concentration, and poor performance at work or school.

Using caffeine to mask sleep deprivation creates an unwelcome cycle. For example, you drink caffeinated beverages because you have trouble staying awake during the day. But the caffeine keeps you from falling asleep at night, shortening the length of time you sleep. Caffeine can also increase the number of times you wake up during the night and can interfere with deep sleep, which makes your night less restful. With less sleep and poor-quality sleep, you're more tired the next day. To battle the fatigue and to feel more energetic, you reach for your morning jolt of Java.

The best way to break this cycle is to limit your caffeine and to add more hours of quality sleep to your day. Also, avoid caffeinated beverages eight hours before your desired bedtime. Your body doesn't store caffeine, but it does take many hours for it to eliminate the stimulant and its effects.

You're taking certain medications and supplements

Certain medications and herbal supplements negatively interact with caffeine. The following are some examples.

- Some antibiotics. Ciprofloxacin (Cipro) and norfloxacin (Noroxin) — types of antibacterial medications — can interfere with the breakdown of caffeine. This may increase the length of time caffeine remains in your body and amplify its unwanted effects.
- Theophylline (Theo-24, Uniphyll, others). This medication — which opens up bronchial airways by relaxing the surrounding muscles (a bronchodilator) — tends to have some caffeine-like effects. Taking this drug along with caffeinated foods and beverages may increase the concentration of theophylline in your blood. This can cause ill effects, such as nausea, vomiting and heart palpitations. If you take theophylline, your doctor may advise that you avoid caffeine.
- Ephedra (ma-huang). This herbal dietary supplement increases your risk of heart attack, stroke, seizures and death. Combined with caffeine, it becomes especially risky. The Food and Drug Administration has banned ephedra in the marketplace because of health concerns. This ban applies to dietary supplements but not herbal teas, which may still contain the herb.

Talk to your doctor or pharmacist about whether caffeine might affect your prescription. He or she can best direct you on whether you need to reduce or eliminate caffeine from your diet.

How to curb your caffeine consumption

Caffeine can be habit-forming, so any attempts to stop or lessen the amount you normally consume can be challenging. An abrupt decrease in caffeine can cause withdrawal symptoms, such as headaches, fatigue, irritability and nervousness. These symptoms usually resolve after several days.

To adopt new caffeine habits, try these tips:

- Know how much caffeine is in the foods and beverages you consume. You may be consuming more than you think.
- Gradually reduce the amount of caffeine you consume. For example, drink one less can of soda or drink a smaller cup of coffee each day. This will help your body get used to the lower levels of caffeine and thereby lessen the withdrawal effects.
- Replace caffeinated coffee, tea and soda with their decaffeinated counterparts. Most decaffeinated beverages look and taste the same.
- When preparing tea, brew for less time. This cuts down on its caffeine content. Or choose herbal teas, which don't contain this stimulant.

Check the caffeine content in over-the-counter medications that you take. Pain relief or headache medications, such as Excedrin or Anacin, can contain from 65 mg to 130 mg of caffeine in one dose. Switch to caffeine-free versions, if possible.

If you're like most adults, caffeine is a part of your daily routine. And most often it doesn't pose a health problem. But be mindful of those situations in which you need to curtail your caffeine consumption.

About the Author

1998-2006 Mayo Foundation for Medical Education and Research (MFMER). Mayo Clinic.

