

# How caffeine affects your brain



Every day, millions of people wake up with a hot cup of coffee or tea. Caffeine in these products helps you feel alert. But how does caffeine work — and what does it do to your brain?



## IS CAFFEINE SAFE?

For most healthy adults, a little caffeine each day is OK. But choose sources without lots of added sugar, such as overly sweetened coffee drinks and sweet teas. And if you're tired all the time, make sure you're:

- Getting enough sleep
- Eating a healthy diet
- Drinking enough water each day
- Getting regular exercise, which can boost your energy levels

Talk to your doctor if you have questions about caffeine and your health.

## ADENOSINE AND SLEEPINESS

Your body naturally makes a chemical called adenosine. It builds up in your body during the day. As levels get higher, you start to feel tired.

Caffeine blocks adenosine from working on brain cells. This prevents you from feeling sleepy. But it can't fool your body forever. Over time, your body makes more adenosine. Then you need more caffeine to get the same "perk-up" effects.

Adenosine is one of the reasons it's hard to quit caffeine. When you suddenly stop, your body must start making lower levels of adenosine again. This takes time. You might feel more tired or get headaches while your body adjusts.

## SENSITIVITY VARIES

Have you ever had too much caffeine? You might feel sick to your stomach or like your heart is racing. You may also feel anxious or nervous.

But not everyone has this reaction. Some people break down caffeine faster than other people. How fast you process caffeine depends on your genes.

## WHO SHOULD SKIP CAFFEINE?

Avoid caffeine if you have:

- Acid reflux or other digestive problems
- Trouble sleeping or sleep disorders
- High blood pressure
- Heart conditions

Children, teens and women who are pregnant or breastfeeding are often advised to stay away from caffeine, too.



Source: National Institutes of Health