



# Learn the truth and consequences of being one nation addicted to **CAFFEINE.**

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IF YOU'RE READING THIS ARTICLE, THE ODDS ARE GOOD THAT you're under the influence of a powerful drug. Some 80 percent of American adults consume caffeine on a daily basis, in everything from coffee, soda and energy drinks to ice cream, chocolate and pain-relieving medications. New research shows that, in moderate amounts, caffeine doesn't deserve the nasty reputation it has developed, especially when it comes in the form of a cup of coffee. But recent studies also demonstrate the dangers of excess caffeine consumption - including dependence and even intoxication.

Caffeine is a complex chemical with a complex history. Pure caffeine - or 1,3,7-trimethylxanthine, to give it its formal name - has no smell and tastes bitter. Unlike many drugs which were born in a chemical lab, caffeine is a natural ingredient in, among other things, coffee beans, tea leaves, kola nuts and cacao pods. It is similar to a chemical in the brain called adenosine that signals the body to feel tired. By blocking adenosine receptors, caffeine helps us feel energized and alert, and improves our moods. In fact, 100 milligrams of caffeine - a little more than an average cup of coffee - may be enough to improve attention and short-term memory in research subjects.

While alertness is the most commonly known (and popular) short-term effect of caffeine, there are many others. Caffeine stimulates the entire central nervous



⚠ In excess, caffeine can cause anxiety, gastrointestinal upset, dizziness and other symptoms.

system, increasing heart rate, constricting blood vessels (which also raises blood pressure), relaxing air passages and allowing muscles to contract more strongly. Stronger contractions increase athletic performance - enough that caffeine was on the International Olympic Committee's list of banned substances until a few years ago. A 2009 study from the University of Illinois demonstrated that caffeine offers another advantage to athletes: It reduces the pain associated with exercise, allowing the body to work harder.

Caffeine has a more esoteric benefit, too: Studies have shown that it can offer protection against skin cancer. New research from investigators at the University of Washington, published in February 2009, uncovered the reason: Caffeine has the power to interrupt a key protein within skin cells damaged by the sun's

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