

Caffeine

by Jill Gore



Do you have trouble sleeping at night? The problem could be in what you drink during the day, such as caffeinated coffee and soda. Caffeine use is on the rise, especially among teens. But too much caffeine can cause a host of side effects that every consumer should know about.

Caffeine is a drug that stimulates the central nervous system. It is produced naturally in the leaves and seeds of many plants, and it can also be produced artificially. Caffeine is in tea leaves, coffee beans, chocolate, cocoa, many types of sodas, and headache medications.

Caffeine consumption has increased dramatically over the last few decades. Coffee is the main source for adults, and soda is the main source for teens. The amount of soda being consumed by teens is raising concerns among health officials. Twenty years ago, teens drank twice as much milk as soda. Today, they drink twice as much soda as milk. Soda consumption by teenage boys nearly tripled from 1978 to 1994.

Health educators say teenagers are drinking, on average, three to four soft drinks a day. Many teens favor energy drinks with even higher levels of caffeine than the average soda. They are also drinking more coffee, which can have up to five times as much caffeine per ounce as most soft drinks.

Health Effects of Caffeine

Caffeine is an ingredient in many foods that teens enjoy. And, of course, they like it for the same reason adults do: in small amounts, caffeine can increase mental alertness and energy. Problems can occur, though, when too much caffeine is consumed. In higher doses, caffeine can cause anxiety, dizziness, headaches, the jitters, irritability, and heartburn. In extremely high doses, caffeine can make an irregular heartbeat worse.

Many athletic coaches discourage their players from consuming too much caffeine because it can cause dehydration. When playing sports, you need to drink plenty of fluids to stay hydrated. But drinking a lot of caffeinated beverages can increase the need to urinate, having the opposite effect. In the process, your body loses calcium, potassium, and other necessary minerals. As a result, your muscles may be sore, and your recovery time after exercise may be prolonged.

Advertisements often show athletes promoting soft drinks, as if drinking soda will help them to play better. Soda, however, does not have vitamins or minerals—just added sugar, artificial flavors, and caffeine—nothing that will get you in better shape for sports.

Large amounts of caffeine can also cause sleep problems. Caffeine resembles adenosine, a chemical produced by our bodies as a result of our daily activities. Adenosine causes drowsiness and helps us get to sleep. Caffeine binds to adenosine receptors in the brain, preventing adenosine from reaching them. As a result, nerve cell activity speeds up, and our bodies begin producing adrenaline, the “fight or flight” hormone that makes us alert and ready for action.

Studies show that increased caffeine consumption leads to fewer hours of sleep at night and more nighttime awakenings. This is particularly a problem for teens, many of whom do not get enough sleep as it is.

How Much Is OK?

If you don’t want to give up caffeine altogether, you can avoid its unpleasant side effects by limiting the amount you get. Doctors recommend that people should consume no more than 100 milligrams of caffeine daily. Most pediatricians recommend no more than one 12-ounce soda a day, which is about 45 milligrams of caffeine. One cup of coffee has about 115 milligrams of caffeine.

How Much Caffeine?		
Food, Beverage, or Medicine	Amount of Food, Beverage, or Medicine	Amount of Caffeine in milligrams (mg)*
Soft Drink	12 ounces	45 mg
Coffee	5 ounces	115 mg
Iced Tea	12 ounces	70 mg
Dark Chocolate	1 ounce	20 mg
Milk Chocolate	1 ounce	6 mg
Hot Cocoa	5 ounces	4 mg
Chocolate Milk	8 ounces	5 mg
Cold Medication	1 tablet	30 mg
* The amount of caffeine may vary based upon the brand. Sources: U.S. Food and Drug Administration and National Soft Drink Association		

Cutting Back

It may be harder for some people to cut back on caffeine than others. Your body becomes dependent on caffeine if you consume large amounts—more than 300 milligrams a day. Withdrawal symptoms can occur after only two weeks of caffeine use. The most common withdrawal symptoms are headache, irritability, moodiness, and fatigue.

If you are accustomed to having a lot of caffeine, you can avoid these withdrawal symptoms by cutting back slowly. Go to bed early to help fight the tired feeling that often goes along with getting less caffeine. This will help you avoid giving in and drinking a caffeinated beverage when you are feeling tired.

There are also other ways to cut back on your caffeine consumption. Choose caffeine-free or low-caffeine products. In taste tests conducted by Consumer Reports, most adolescents could not differentiate between regular and caffeine-free soda. If you must drink caffeinated soda, choose the smallest size—avoid supersized servings. Try substituting water, milk, or juice for soft drinks. You should also limit your consumption of products flavored with coffee or chocolate. These products may contain caffeine, even if it is not listed as an ingredient on the label.

The Bottom Line

What's the last word on caffeine? A little will not hurt you, but watch the amount you are consuming to be sure you are not overdoing it. If you are getting too much caffeine, take steps to curtail your intake. By cutting back, you can avoid some of the negative side effects associated with caffeine consumption. Better yet, you might find yourself replacing caffeinated products with others that are actually good for your health—like milk, juice, or water instead of soda.