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## Caffeine in the diet

Caffeine is a substance that is found in certain plants. It can also be man-made and added to foods. It is a central nervous system stimulant and a diuretic (substance that helps rid your body of fluids).

### Function

Caffeine is absorbed and passes quickly into the brain. It does not collect in the bloodstream or get stored in the body. It leaves the body in the urine many hours after it has been consumed.

There is no nutritional need for caffeine. It can be avoided in the diet.

Caffeine stimulates, or excites, the brain and nervous system. It will not reduce the effects of alcohol, although many people still erroneously believe a cup of coffee will help a person "sober-up".

Caffeine may be used for the short-term relief of fatigue or drowsiness.

### Food Sources

Caffeine is widely consumed. It is found naturally in the leaves, seeds, and fruits of more than 60 plants, including:

- Tea leaves
- Kola nuts
- Coffee
- Cocoa beans

It is also found in processed foods:

- Coffee - 75 to 100 mg per 6 ounce cup, 40 mg per 1 ounce espresso.
- Tea - 60 to 100 mg per 16 ounce cup black or green tea.
- Chocolate - 10 mg per ounce sweet, semisweet, or dark, 58 mg per ounce unsweetened baking chocolate.
- Most colas (unless they are labeled "caffeine-free") - 45 mg in a 12 ounce (360 milliliters) drink.
- Candies, energy drinks, snacks, gum - 40 to 100 mg per serving.

Caffeine is often added to over-the-counter medicines such as pain relievers, over-the-counter diet pills, and cold medicines. Caffeine has no flavor. It can be removed from a food by a chemical process called decaffeination.

## **Side Effects**

Caffeine can lead to:

- A fast heart rate
- Anxiety
- Difficulty sleeping
- Nausea and vomiting
- Restlessness
- Tremors
- Urinating more often

Stopping caffeine suddenly may cause withdrawal symptoms. These may include:

- Drowsiness
- Headaches
- Irritability
- Nausea and vomiting

There has been much research on the health effects of caffeine.

- Large amounts of caffeine may stop the absorption of calcium and lead to thinning bones (osteoporosis).
- Caffeine may lead to painful, lumpy breasts (fibrocystic disease).

Caffeine may harm a child's nutrition if drinks with caffeine replace healthy drinks such as milk. Caffeine cuts down on appetite so a child who consumes caffeine may eat less. The United States has not developed guidelines for caffeine intake by children.

## **Recommendations**

The American Medical Association Council on Scientific Affairs states that moderate tea or coffee drinking is not likely to be harmful to your health as long as you have other good health habits.

Four 8 ounce cups (1 liter) of brewed or drip coffee (about 400 mg of caffeine) or 5 servings of caffeinated soft drinks or tea (about 165 to 235 mg of caffeine) per day is an average or moderate amount of caffeine for most people. Consuming very large amounts of caffeine (over 1200 mg) within a short time period may lead to toxic effects such as seizures.

You may want to limit your caffeine intake if:

- You are prone to stress, anxiety, or sleep problems.
- You are a woman with painful, lumpy breasts.
- You have acid reflux or stomach ulcers.
- You have high blood pressure that does not lower with medicine.

- You have problems with fast or irregular heart rhythms.
- You have chronic headaches.

Watch how much caffeine a child gets.

- There are currently no specific guidelines for caffeine consumption in children and teens, The American Academy of Pediatrics discourages its use, especially energy drinks.
- These drinks often contain large amount of caffeine as well as other stimulants, which can cause sleep problems, as well as nervousness and stomach upset.

Small amounts of caffeine during pregnancy are safe. Avoid large amounts.

- Caffeine, like alcohol, travels through your bloodstream to the placenta. Excessive caffeine intake can have a negative effect on a developing baby. Caffeine is a stimulant, so it increases your heart rate and metabolism. Both of these can affect the baby.
- During pregnancy, it is fine to have 1 or 2 small cups (240 to 480 milliliters) of caffeinated coffee or tea a day. However, limit your intake to less than 200 mg per day. Many drugs will interact with caffeine. Talk to your health care provider about possible interactions with the medicines you take.

If you are trying to cut back on caffeine, reduce your intake slowly to prevent withdrawal symptoms.

## Alternative Names

Diet - caffeine

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[www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much](https://www.fda.gov/consumers/consumer-updates/spilling-beans-how-much-caffeine-too-much) [https://pubmed.ncbi.nlm.nih.gov/21624882/]

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