

FACT SHEET: CAFFEINE AND HEALTH

INTERNATIONAL FOOD INFORMATION COUNCIL FOUNDATION

Many women, especially those of childbearing age, are concerned about consuming too much caffeine. From reproductive effects to osteoporosis, scientists worldwide have studied the effects of caffeine on women's health. This fact sheet reviews the latest research on caffeine and women's health, summarizing the major findings. When taken together, the collective research supports moderate consumption of caffeine (up to 300 mg/day or three cups of coffee) for women, including those who are pregnant or breastfeeding.

What Is Caffeine?

Caffeine is a naturally occurring substance found in the leaves, seeds or fruits of at least 63 plant species worldwide.

What Foods And Beverages Contain Caffeine?

The most commonly known sources of caffeine are coffee, tea, some soft drinks and chocolate. The amount of caffeine in food products varies depending on the serving size, the type of product and preparation method. With teas and coffees, the plant variety also affects caffeine content.

Coffee is the chief source of caffeine in the U.S. An eight-ounce cup of drip-brewed coffee typically has 65-120 milligrams (mg) of caffeine; an eight and one-third ounce energy drink contains between 50-200 mg; an eight-ounce serving of brewed tea has 20-90 mg; caffeinated soft drinks have 30-60 mg per 12 ounce serving; and an ounce of milk chocolate has just 1-15 mg.

How Much Caffeine Do We Consume?

Published data show the per capita consumption level of caffeine for the average adult is approximately 120 mg/day, or a mean intake of 1.73 mg/kg body weight/day. The average child consumes much less—between 14 and 22 mg/day.

For children and young adults, the primary sources of caffeine are tea and soft drinks, while for adults caffeine intake is mostly from coffee.

What constitutes a normal amount of caffeine depends on the individual. Caffeine sensitivity depends on many factors, including the frequency and amount of regular intake, body weight and physical condition.

Numerous studies have shown that moderate amounts of caffeine—about 300 milligrams per day—are safe for most adults. Some individuals may be sensitive to caffeine and will feel effects at smaller doses than do individuals who are less sensitive.

Caffeine can be added or naturally occurring.

Caffeine is a naturally occurring substance found in the leaves, seeds or fruits of more than 60 plants. Foods and beverages derived from coffee beans, cocoa beans, kola nuts and tea leaves are common sources of caffeine.

Caffeine is also added to some foods and beverages for flavor. It contributes to the overall flavor profile of those foods in which it is added.

Caffeine is safe.

In 1958, the U.S. Food and Drug Administration (FDA) classified caffeine as Generally Recognized As Safe (GRAS). In 1987, the FDA reaffirmed its position that moderate caffeine intake produced no increased risk to health. In addition, both the American Medical Association and the American Cancer Society have statements confirming the safety of moderate caffeine consumption.

Caffeine is not an addictive substance.

Depending on the amount of caffeine ingested, it can be a mild stimulant to the central nervous system. Although caffeine is sometimes characterized as "addictive," moderate caffeine consumption is safe and should not be classified with addictive drugs of abuse. Often, people who say they are "addicted" to caffeine tend to use the term loosely, like saying they are "addicted" to running, working or television.

When regular caffeine consumption is stopped abruptly, some individuals may experience mild symptoms such as headache, fatigue or drowsiness. These effects are usually only temporary and will end in a day or so.

Caffeinated beverages are hydrating.

Caffeinated beverages consumed in moderation can count toward daily water intake, contributing to hydration. The Institute of Medicine's (IOM) Panel on Dietary Reference Intakes for Electrolytes and Water states, "While consumption of beverages containing caffeine and alcohol have been shown in some studies to have diuretic effects, available information indicates that this may be transient in nature, and that such beverages can contribute to total water intake and thus can be used in meeting recommendations for dietary intake of total water" (Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and Sulfate, 2003). Thus, the diuretic effect is more than likely compensated for by the fluid in the beverage.

Caffeine in moderation is safe for children.

Research has found no evidence to suggest the use of caffeine at the levels in foods and beverages is harmful. As with all foods and beverages, parents should use common sense in giving their children normal servings of caffeinated foods and beverages.

Consuming caffeine-containing foods and beverages will not cause children to become hyperactive.

There is no evidence to show that caffeine is associated with hyperactive behavior. In fact, most well-conducted scientific studies show no effects of caffeine-containing foods—or any food or beverage, in general—on hyperactivity or attention deficit disorder in children. Scientific evidence suggests that children are no more sensitive to the effects of caffeine than adults.

Consuming caffeine in moderate amounts during pregnancy is safe.

Most physicians and researchers today agree that it's safe for pregnant women to consume caffeine.

Daily consumption of up to 300 mg/day (approximately two to three 8 oz. cups of brewed coffee) has been shown to have no adverse effects on pregnancy. However, it is wise for pregnant women to monitor their caffeine consumption and talk to their obstetrician or other physician about consuming caffeine during their pregnancy.

Caffeine does not affect a woman's chances of getting pregnant.

The weight of scientific research indicates that moderate caffeine consumption does not affect fertility, or cause adverse health effects in the mother or the child.

Consuming caffeine in moderation is OK while breastfeeding.

Caffeine-containing foods and beverages, in moderation, can be enjoyed while breastfeeding. Studies have shown that although caffeine is passed to the infant through breast milk, the amount is minute and has no effect on the infant.

Both the American Academy of Pediatrics and researchers of a review published in the *American Journal of Clinical Nutrition* concluded that moderate consumption of caffeine by nursing mothers will have no effect on the infant.

Fibrocystic Breast Disease (FBD) is not caused or worsened by caffeine consumption.

Fibrocystic breast disease (FBD) is a condition characterized by multiple cysts that can be felt throughout the breast and are usually associated with pain and tenderness. Approximately 50 to 90 percent of women experience symptoms of FBD.

Both the National Cancer Institute and the American Medical Association's Council on Scientific Affairs have stated there is no association between caffeine intake and FBD. In addition, research has shown that caffeine does not cause or worsen the symptoms of fibrocystic breast disease.

Osteoporosis is not caused or worsened by caffeine/coffee consumption.

Osteoporosis is a disease of the bone characterized by a decrease in bone density and the development of weak and brittle bones, which are more prone to fracture. Osteoporosis occurs most frequently in women. Risk factors include inadequate calcium intake, high protein intake, smoking, inadequate exercise, small body frame, low estrogen levels and age. In addition, Caucasian and Asian women are at higher risk for osteoporosis than women of most other ethnic groups.

A recent study of post-menopausal women demonstrated that caffeine intake is not associated with any change in bone density. Several other recent, well-controlled studies have concluded that consuming moderate amounts of caffeine does not increase a woman's risk of osteoporosis.

Caffeine does not change blood cholesterol.

There is no evidence linking caffeine to changes in blood cholesterol. Consumption of coffee as typically prepared in the U.S. does not affect blood cholesterol levels.

Studies from Scandinavia using boiled, unfiltered coffee (such as that made using a French press or in espresso) have found an adverse effect on blood cholesterol. However, this effect has not been definitively linked to caffeine. This preparation method is also less common in the U.S.

Caffeine does not cause chronic high blood pressure.

Caffeine does not cause chronic hypertension or any persistent increase in blood pressure. Some individuals sensitive to caffeine may experience a slight rise in blood pressure immediately after consuming caffeine, but it usually does not last more than several hours. Studies show any rise in blood pressure is modest and less than that normally experienced when climbing stairs. However, individuals with high blood pressure should consult their physician about caffeine intake.

Caffeine does not cause increased risk of heart disease.

There have been more than 100 studies that have examined whether a relationship exists between exposure to caffeine and blood pressure, cardiac arrhythmia or coronary heart disease. Most of this research has led to the conclusion that ingestion of moderate amounts of caffeine is not associated with any increase in cardiovascular disease risk. However, individuals with high blood pressure should consult their physician about caffeine intake.



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