



## **Health Benefits and Risks of Coffee Drinking**

According to the National Coffee Association, nearly 60% of US adults drink coffee daily. If you are among them, you might be wondering what effects coffee consumption has on your health. This question has been rigorously debated over the past several decades.

Older studies seemed to indicate a possible relationship between coffee consumption and cancer. In 1991, the World Health Organization classified coffee as a possible carcinogen, but this was reversed in 2016 after a review of thousands of studies indicated there was inadequate evidence to show an association. In 2018, California passed legislation requiring coffee products to bear a cancer warning label due to a chemical in the beverage called acrylamide, which is formed when the beans are roasted. This ruling was also reversed after the dose of acrylamide in coffee was determined to be too low to be a carcinogenic risk.

Newer research studies, that do a better job controlling for confounding factors like cigarette smoking and diet, have found that coffee has beneficial effects on health. Coffee is well known for its caffeine kick, but it also contains riboflavin, magnesium, and a plethora of plant chemicals called polyphenols that have antioxidant and anti-inflammatory properties that benefit our health.

Many factors contribute to the characteristics of the coffee – the coffee bean used, how it is roasted, the amount of grind, and how it is brewed. One 8-ounce cup contains about 95 mg of caffeine. A moderate amount of coffee is generally defined as 3-5 cups a day, or on average 400 mg of caffeine, according to the Dietary Guidelines for Americans. People can vary widely in their response to caffeine, but in general low to moderate doses of caffeine (50–300 mg) may cause increased alertness, energy, and ability to concentrate, while higher doses may have negative effects such as anxiety, restlessness, insomnia, and increased heart rate. While caffeinated drinks may have a mild diuretic effect, the fluid loss is much less than the volume ingested and does not appear to increase the risk of dehydration.

People who have difficulty controlling their blood pressure may want to moderate their coffee intake. Pregnant women are also advised to limit caffeine to less than 200 mg of daily, the amount in 2 cups of coffee, because caffeine passes through the placenta to the fetus and has been associated with pregnancy loss and low birth weight. If you are sensitive to caffeine, decaffeinated coffee is a good option since it appears to offer similar health benefits as caffeinated coffee.

If you dislike coffee or experience negative side effects from drinking it, there is no reason to include it in your diet. There are plenty of other ways to improve your health and reduce your

risk of chronic disease. But if you enjoy your cup of joe, you can rejoice that consuming moderate amounts of coffee has positive health benefits.

- **Mortality** - Research supports an inverse association between coffee consumption and mortality. People who drank at least 1 cup of coffee per day had significantly lower mortality rates than people who drank little or no coffee. The maximum protective effect of coffee consumption has been reported to be around 3–4 cups per day.
- **Parkinson's** – Epidemiologic studies have consistently found that higher consumption of caffeine is associated with a reduced risk of developing Parkinson's Disease. Caffeine in coffee appears to protect brain cells that produce dopamine. Low dopamine levels are a hallmark of this disease.
- **Cancer** – Coffee may exert its effects on cancer development in several ways. Its high antioxidant content may prevent cell damage and inflammation which are risk factors for cancer development. Coffee also appears to decrease estrogen levels, a hormone linked to cancers of the breast, ovarian, endometrial, and colon.
- **Type 2 Diabetes** – Studies indicate that coffee drinkers have a lower risk of developing type 2 diabetes compared to non-drinkers. The magnesium and polyphenols in coffee are thought to improve insulin and glucose metabolism in the body.
- **Heart Disease** – Coffee consumption is consistently associated with a lower risk of mortality from all causes of cardiovascular disease, coronary heart disease, and stroke with the largest reduction in relative risk at three cups per day. Increasing consumption above three cups a day was not associated with harm, but the beneficial effect was less pronounced.

When it comes to health, the type of brew may make a difference. Unfiltered coffee, such as French press, contains diterpenes, substances that can raise LDL cholesterol and triglycerides. Espresso coffee contains moderate amounts of diterpenes while drip-brewed and instant coffee contain almost none, due to the filtering and processing of these types of coffees. What we add to our coffee is also important. When we drink coffee laden with cream and sugar, we likely negate many of the health benefits. So stick with black coffee, perhaps with a bit of low-fat milk, and reserve the coffee house beverage loaded with whipped cream and flavored syrup for an occasional treat.

References:

<https://www.ncausa.org/Industry-Resources/Market-Research/NCDT>

<https://www.hsph.harvard.edu/nutritionsource/food-features/coffee/>

<https://www.annualreviews.org/doi/abs/10.1146/annurev-nutr-071816-064941>

<https://my.clevelandclinic.org/health/diseases/10312-estrogen-dependent-cancer>

<https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/expert-answers/caffeinated-drinks/faq-20057965>