

# Health effects of coffee: Where do we stand?

## Story highlights

- Study after study extols the merits of three to five cups of black coffee a day
- How you brew coffee also contributes to the health factor

(CNN)It's one of the age-old medical flip-flops: First coffee's good for you, then it's not, then it is -- you get the picture.

Today, in 2015, the verdict is thumbs up, with study after study extolling the merits of three to five cups of black coffee a day in reducing risk for everything from [melanoma](#) to [heart disease](#), multiple sclerosis, [type 2 diabetes](#), [Parkinson's disease](#), [liver disease](#), [prostate cancer](#), [Alzheimer's](#), computer-related [back pain](#) and more.

**Related:** [Coffee is practically a health food: Myth or fact?](#)

To stay completely healthy with your coffee consumption, you'll want to avoid packing it with calorie laden creams, sugars and flavors. And be aware that a cup of coffee in these studies is only 8 ounces; the standard "grande" cup at the coffee shop is double that at 16 ounces.

And how you brew it has health consequences. Unlike filter coffee makers, the French press, Turkish coffee or the boiled coffee popular in Scandinavian countries fail to catch a compound called [cafestol](#) in the oily part of coffee that can increase your bad cholesterol or LDL.

Finally, people with [sleep issues](#) or [uncontrolled diabetes](#) should check with a doctor before adding caffeine to their diets, as should pregnant women, as there is some concern about caffeine's effect on [fetal growth](#) and miscarriage. And some of the latest research seems to say that our genes may be responsible for how we react to coffee, explaining why some of us need several cups to get a boost while others get the jitters on only one.

But as you know, the news on coffee has not always been positive. And the argument over the merits of your daily cup of joe dates back centuries. Let's take a look at the timeline.

### 1500's headline: Coffee leads to illegal sex

Legend has it that coffee was discovered by Kaldi, an Ethiopian goatherd, after he caught his suddenly frisky goats eating glossy green leaves and red berries and then tried it for himself. But it was the Arabs who first started coffeehouses, and that's where coffee got its first black mark.

Coffee leads to illegal sex? Well, not enough of it was certainly grounds for divorce!

Patrons of coffeehouses were said to be more likely to gamble and engage in "criminally unorthodox sexual situations," according to author [Ralph Hattox](#). By 1511 the mayor of Mecca shut them down. He cited medical and religious reasons, saying coffee was an intoxicant and thus prohibited by Islamic law, even though scholars like [Mark Pendergrast](#) believe it was more likely a reaction to the unpopular comments about his leadership. The ban didn't last long, says Pendergrast, adding that coffee became so important in Turkey that "a lack of sufficient coffee provided grounds for a woman to seek a divorce."



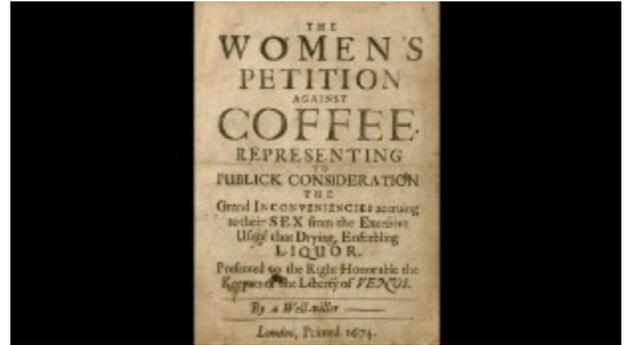
## 1600's headline: Coffee cures alcoholism but causes impotence

As the popularity of coffee grew and spread across the continent, the medical community began to extol its benefits. It was especially popular in England as a [cure for alcoholism](#), one of the biggest medical problems of the time; after all, water wasn't always safe to drink, so most men, women and even children drank the hard stuff.

Local ads [such as this one](#) in 1652 by coffee shop owner Pasqua Rosée popularized coffee's healthy status, claiming coffee could aid digestion, prevent and cure gout and scurvy, help coughs, headaches and stomachaches, even prevent miscarriages.

in the 1600's London women called for the closing of coffee houses, saying the brew was making their men 'impotent'.

But in London, women were concerned that their men were becoming impotent, and in 1674 [The Women's Petition Against Coffee](#) asked for the closing of all coffeehouses, saying in part: "We find of late a very sensible Decay of that true *Old English Vigour*. ... Never did Men wear *greater Breeches*, or carry *less* in them..."



## 1700's headline: Coffee helps you work longer

By 1730, tea had replaced coffee in London as the [daily drink of choice](#). That preference continued in the colonies until 1773, when the famous Boston Tea Party made it [unpatriotic](#) to drink tea. Coffeehouses popped up everywhere, and the marvelous stimulant qualities of the brew were said to contribute to the ability of the colonists to work longer hours.

## 1800's headline: Coffee will make you go blind. Have a cup of hot wheat-bran drink instead

In the mid-1800s America was at war with itself and one side effect is that coffee supplies ran short. Enter [toasted grain-based beverage substitutes](#) such as Kellogg's "Caramel Coffee" and C.W. Post's "Postum" ([still manufactured](#)). They advertised with anti-coffee tirades to boost sales. C.W. Post's ads were especially vicious, says Pendergrast, claiming coffee was as bad as morphine, cocaine, nicotine or strychnine and could cause blindness.

## 1916 headline: Coffee stunts your growth

A selection of tins of different brands of coffee, including Brooke Bond, Lyons and Maxwell House, 1947.

While inventions and improvements in coffee pots, filters and processing advanced at a quick pace throughout the 1900s, so did medical concerns and negative public beliefs about the benefits of coffee.

[Good Housekeeping magazine](#) wrote about how coffee stunts growth. And concerns continued to grow about coffee's impact on common ailments of the era, such as nervousness, heart palpitations, indigestion and insomnia.



## 1927 headline: Coffee will give you bad grades, kids

In [Science Magazine](#), on [September 2, 1927](#), 80,000 elementary and junior high kids were asked about their coffee drinking habits. Researchers found the "startling" fact that most of them drank more than a cup of coffee a day, which was then compared to scholarship with mostly negative results.

## 1970's and '80's headline: Coffee is as serious as a heart attack

A 1973 study in the [New England Journal of Medicine](#) of more than 12,000 patients found drinking one to five cups of coffee a day increased risk of heart attacks by 60% while drinking six or more cups a day doubled that risk to 120%.

Another [New England Journal of Medicine](#) study, in 1978, found a short-term rise in blood pressure after three cups of coffee. Authors called for further research into caffeine and hypertension.

A number of studies in the 1900's found a connection between coffee consumption and heart health.

A 38-year study by the [Johns Hopkins Medical School](#) of more than a 1,000 medical students found in 1985 that those who drank five or more cups of coffee a day were 2.8 times as likely to develop heart problems compared to those who don't consume coffee. But the study only asked questions every five years, and didn't isolate smoking behavior or many other negative behaviors that tend to go along with coffee, such as doughnuts. Or "Dooooonuts," if you're Homer Simpson.



## Millennium headline: Coffee goes meta

Now begins the era of the meta-analysis, where researchers look at [hundreds of studies](#) and apply scientific principles to find those that do the best job of randomizing and controlling for compounding factors, such as smoking, obesity, lack of exercise and many other lifestyles issues. That means that a specific study, which may or may not meet certain standards, can't "tip the balance" one way or another. We take a look at some of the years. The results for coffee? Mostly good.

## 2001 headline: Coffee increases risk of urinary tract cancer

But first, a negative: A [2001 study](#) found a 20% increase in the risk of urinary tract cancer risk for coffee drinkers, but not tea drinkers. That finding was repeated in a [2015 meta-analysis](#). So, if this is a risk factor in your family history, you might want to switch to tea.

## 2007 headline: Coffee decreases risk of liver cancer

Some of these data analyses found preventive benefits for cancer from drinking coffee, such as [this one](#), which showed drinking two cups of black coffee a day could reduce the risk of liver cancer by 43%. Those findings were [replicated](#) in 2013 in two [other studies](#).

## 2010 headline: Coffee and lung disease go together like coffee and smoking

A [meta-analysis](#) found a correlation between coffee consumption and lung disease, but the study found it impossible to completely eliminate the confounding effects of smoking.

## 2011 headline: Coffee reduces risk of stroke and prostate cancer

A [meta-analysis](#) of 11 studies on the link between stroke risk and coffee consumption between 1966 and 2011, with nearly a half a million participants, found no negative connection. In fact, there was a small benefit in moderate consumption, which is considered to be three to five cups of black coffee a day. Another [meta-analysis](#) of studies between 2001 and 2011 found four or more cups a day had a preventive effect on the risk of stroke.

As for prostate cancer, this 2011 [study](#) followed nearly 59,000 men from 1986 to 2006 and found drinking coffee to be highly associated with lower risk for the lethal form of the disease.

### **2012 headline: Coffee lowers risk of heart failure**

More meta-analysis of studies on [heart failure](#) found four cups a day provided the lowest risk for heart failure, and you had to drink a whopping 10 cups a day to get a bad association.

### **2013 headline: Coffee lowers risk of heart disease and helps you live longer**

For general heart disease a [meta-analysis](#) of 36 studies with more than 1.2 million participants found moderate coffee drinking seemed to be associated with a low risk for heart disease; plus, there wasn't a higher risk among those who drank more than five cups a day.

How about coffee's effects on your overall risk of death? One [analysis](#) of 20 studies, and [another](#) that included 17 studies, both of which included more than a million people, found drinking coffee reduced your total mortality risk slightly.

### **2015 headline: Coffee is practically a health food**

In 2015, coffee is practically a health food. But standby for the next meta-analysis because it could change. We'll keep you updated.

As a sign of the times, the [U.S. Department of Agriculture](#) now agrees that "coffee can be incorporated into a healthy lifestyle," especially if you stay within three to five cups a day (a maximum of 400 mg of caffeine), and avoid fattening cream and sugar. You can read their analysis of the latest data on everything from diabetes to chronic disease [here](#).



But stay tuned. There's sure to be another meta-study, and another opinion. We'll keep you updated.