

Black Tea Is Great for Your Gut

Analysis by [Dr. Joseph Mercola](#)

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STORY AT-A-GLANCE

- › Mice that ingested green or black tea extracts exhibited a change in the ratios of two significant microbiome family groups, recording a decrease in bacteria linked to obesity and an upsurge in bacteria associated with lean body mass
- › When the compounds in black tea are busy improving the ratio between the good and bad critters in your gut, they're also helping to lower your proclivity toward obesity and diabetes
- › One difference between teas is how your body absorbs the antioxidants: green tea polyphenols are so small they're absorbed into the bloodstream and liver; those in black tea are bigger and remain in your intestine to boost gut health
- › Black tea consumption is linked to a decrease in the risks of stroke, heart attack, hypertension, diabetes, dementia and even cancer, especially when you drink four or more cups per day

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A warming cup of tea offers many comforts, especially when the temperature begins to dip, but while the advantages of green tea are many and well noted, there's another type – black tea – shown by research to not only positively impact your quest for weight loss but also lead to a healthier gut microbiome in the process.

The precise benefit stems from the way black tea (and green tea, too) can change the ratio of gut bacteria, decreasing the percentages of a type previously linked to obesity,

and increasing bacteria associated with lean body mass, Psychology Today reports.¹

The study, conducted by researchers from The University of California, Los Angeles (UCLA) and published in the European Journal of Nutrition,² revealed that not only may drinking black tea change your **gut microbiome** for the better, it may also **improve your gut function**. Lead study author Susanne Henning explains:³

"Our findings suggest that black tea, through a specific mechanism through the gut microbiome, may also contribute to good health and weight loss in humans. The results suggest that both green and black teas are prebiotics, substances that induce the growth of good microorganisms that contribute to a person's well-being."

It now appears that both green and black teas have metabolism-boosting effects, with green tea working via your bloodstream and black tea via your gut bacteria.⁴ In addition, antioxidant **polyphenols** in both green and black tea fight against free radicals, helping to ensure the proper function of DNA and cell membranes.⁵

However, by altering your gut microbiome, black tea helps **prevent weight gain and obesity**, making it "antiobesogenic." Psychology Today explains part of the mechanism for how this works, as well as the importance of intestinal health:⁶

"Each of us has trillions of microorganisms and diverse bacterial communities – commonly referred to as microbiome or gut microbiota – residing in our gastrointestinal tract at any given time. Microbiota is a diverse ecological community of microorganisms that are generally a combination of both beneficial 'good bacteria' and potentially harmful bacteria.

The human gut is similar to that of a mouse and generally harbors over 100 trillion microorganisms. Microbiome colonies begin to reside within our intestines immediately after birth and are vital to the healthy development of your immune system and are associated with various important neurobiological and physiological functions."

Study Reveals What Black Tea Can Do for Your Gut

Four groups of mice involved in the research were given different diets to compare over a four-week period – low-fat and high-sugar; high-fat and high-sugar; high-fat, high-sugar plus green tea extract; and high-fat, high-sugar plus black tea extract. Evaluating the results, UCLA Newsroom⁷ adds, the scientists found that the mice given the green or black tea extracts dropped the same amount of weight as the ones who were fed a straight low-fat diet.

Simultaneously, samples were collected from the large intestines of the mice so their bacteria could be accounted for, as well as from their liver tissues so they could measure their fat deposits. The scientists' findings indicated that the mice that had ingested the tea extracts exhibited a change in the ratios of two significant microbiome family groups.

The first was a decrease in Firmicutes bacteria linked to obesity, with an upsurge in Bacteroidetes that had in previous studies been associated with lean body mass. The team listed the eight bacteria that "significantly correlated" with weight loss induced by tea extracts:

Blautia	Bryantella	Collinsella	Lactobacillus
Marvinbryantia	Turicibacter	Barnesiella	Parabacteroides

Only mice that had ingested black tea showed an increase in *Pseudobutyrvibrio*, with the added increase in the intestinal formation of short-chain fats,⁸ which the team explains may be the bacteria that make the difference in how black tea and green tea change the way energy is metabolized, the Atlanta Journal-Constitution⁹ observes.

The molecules in **green tea**, being smaller, are absorbed directly into your bloodstream and liver, while black tea stays in your intestinal tract because the molecules are larger. The study authors explained, "When black tea molecules stay in the intestinal tract, they

enhance the growth of beneficial bacteria and the formation of microbial metabolites involved in the regulation of energy metabolism."¹⁰

Black Tea's Other Advantages Over Disease

Black tea can retain its robust flavor for several years, while green tea typically goes flat if it's not used within a year, but that's just one of many benefits of black tea consumption.

According to studies conducted in Saudi Arabia, the Netherlands and Western Australia, the advantages of drinking black tea increase with the consumption of four or more cups per day,¹¹ while the risk of several diseases and disorders is reduced, including stroke, heart attack, **high blood pressure**, diabetes and even cancer.

Similarly, a study at King Saud University in Saudi Arabia showed that the study participants who drank more than six cups of tea a day had a "significantly lower prevalence of **coronary heart disease**" than non-tea drinkers.¹² A study at the Netherlands National Institute of Public Health and the Environment found an association between black tea and decreased stroke incidence, as well.¹³ Prevent Disease notes:¹⁴

"Researchers looked at data from a study examining the health benefits of foods that are high in flavonoids – phytonutrients with antioxidant benefits. While some of the flavonoids were obtained from fruits and vegetables, 70% came from black tea."

Cancer is another disease scientists have found black tea to be protective against. A 2000 study at Rutgers University found what they termed black tea's "secret weapon," a potent anticancer polyphenol called **theaflavin-3'-monogallate** (TF-2). The researchers noted that the compound showed interesting effects against the COX-2 gene, which plays a role in promoting inflammation as well as cancer growth and survival.¹⁵

Black Tea Lowers Blood Pressure and Diabetes Risks

It may come as no surprise that, when the compounds in black tea are busy improving the ratio between the good and bad critters in your gut, it's also helping to lower your risk of Type 2 diabetes. As a prebiotic, the polysaccharides in black tea contained more glucose-inhibiting properties when compared to two other teas, including green and oolong teas.

A study in the Journal of Food Science showed that polysaccharides from black tea may take the edge off sugar spikes after a meal better than similar compounds from green and oolong tea, which provides potential diabetes management.¹⁶

"Inhibition of intestinal alpha-glucosidases delays the digestion of starch and sucrose, flattens the postprandial blood glucose excursions, and thus mimics the effects of dieting"¹⁷ another study in the European Journal of Clinical Investigation noted about people with blood sugar issues.

In addition, JAMA's Archives of Internal Medicine published a six-month study conducted by a team of scientists from the University of Western Australia (UWA), led by professor of nutrition and epidemiology Jonathan Hodgson, which reported that drinking three or more cups of black tea per day (which provides about 429 milligrams (mg) of polyphenols) may **reduce blood pressure**, which could in turn help decrease your heart disease risk and also have a long-term effect.¹⁸ Hodgson noted:¹⁹

"Our study has demonstrated for the first time to our knowledge that long-term regular consumption of black tea can result in significantly lower (blood pressure) in individuals with normal to high-normal range (blood pressure). At a population level, the observed differences in (blood pressure) would be associated with a 10% reduction in the prevalence of hypertension and a 7% to 10% reduction in the risk of cardiovascular disease."

Following the six-month trial period, the study team reported that the systolic and diastolic blood pressure of the study participants fell between 2 and 3 mmHg compared to non-tea drinkers. Jane Rycroft, senior nutrition and health manager at Unilever's Research & Development, stated:²⁰

"This is further evidence to suggest that tea and its natural ingredients can help people become healthier. While a 2 to 3 mmHg decrease is a small change to an individual's blood pressure, it's tantalizing to think what positive impact this could have on reducing the risk of heart disease among the general public."

The Difference in Teas – How It's Processed

All tea comes from *Camellia Sinensis*, a white-flowered evergreen, The Spruce explains, adding that the basic **difference between black and green tea** stems from their production methods. Black tea undergoes full oxidation and fermentation while green tea doesn't.²¹ Besides containing caffeine and the aforementioned polyphenols, one 8-ounce cup of black tea contains several other unique and health-beneficial properties, including:²²

Amino acids	Proteins	Potassium	Major minerals
Manganese	Riboflavin	Folate	Magnesium

Another way to explain the difference is that black teas may be oxidized for two to four hours, while green tea isn't exposed to oxygen at all. Different colors and flavors of tea depend on the way the plant is processed.

The darker the tea, generally the longer it has been oxidized, or exposed to oxygen. One thing you want to watch for when you're buying tea is the processing methods, which is why you want to look for organic teas. Otherwise, it may have undergone a heavy dose of pesticide spray.

Another problem with tea may be exposure to toxins from soil and water, such as **heavy metals** and fluoride. A clean growing environment is essential to producing a pure, high-quality tea, so be mindful of this when choosing your source.

When you think of all the Chinese sages who've ingested probably thousands of cups of tea in their lifetimes, it's no surprise that drinking tea can even help reduce the risk of

dementia by 50% and the risk of Alzheimer's disease by 86%, according to another study.²³

In fact, "the protective role of tea consumption on brain function is not limited to a particular type of tea – so long as the tea is brewed from tea leaves, such as green, black or oolong tea."²⁴ So from your brain down to your gut, drinking high-quality tea may boost your health in multiple ways.

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