

PRINT-New study suggests coffee supports gut health and mood

A new study is challenging long-held assumptions about coffee's effects on digestive health, suggesting the popular beverage could offer benefits for both the gut and the brain.

The research, published in [*Nature Communications*](#), examined 62 participants, half of whom were regular coffee drinkers, to explore how coffee consumption influences the gut microbiome and mental well-being. Using psychological assessments alongside dietary tracking and biological samples, researchers found that individuals who drank coffee, whether caffeinated or decaffeinated, reported lower levels of stress, depression and impulsivity.

The findings point to a growing scientific consensus: coffee is more than just a caffeine delivery system. According to the study's authors, it acts as a complex dietary component that interacts with gut bacteria, metabolism and even emotional health.

Researchers also observed higher levels of beneficial bacteria among coffee drinkers, including strains linked to protection against harmful microbes and inflammation. Caffeinated coffee, in particular, was associated with reduced anxiety, improved attention and lower markers of inflammation.

Still, OSF HealthCare gastroenterologist Omar Khokhar, MD, cautions against drawing sweeping conclusions.

Kinds of coffee could make a difference

Dr. Khokhar points out it's a small study that supports a hypothesis, but it's not definitive proof that coffee will improve gut health or mood.

"There are so many different kinds of coffee. There's Turkish coffee, there's South American coffee, there's Dunkin Donuts coffee, there's Folger's and Sanka for some of the people watching this on Facebook." He points out, "It just comes down to each person and their own individual microbiome and how it responds to whatever particular type of coffee they're ingesting."

Instead, Dr. Khokhar believes the study contributes to a broader shift in how scientists understand nutrition. Rather than labeling foods as strictly "good" or "bad," researchers are increasingly focusing on individual responses, particularly how a person's unique gut microbiome influences their reaction to what they consume.

Coffee itself is chemically complex, containing compounds such as polyphenols, which Dr. Khokhar says might act to feed beneficial gut bacteria.

"Now let's suppose you're at baseline and you have overall good gut hygiene and function; coffee could potentially be a good thing. It could be a prebiotic of sorts, that could potentially support your microbiome in that case."

This could help explain the observed microbiome changes in coffee drinkers.

However, those same compounds can have downsides. Coffee is known to relax the lower esophageal sphincter, potentially triggering heartburn, and Dr. Khokhar stresses coffee exacerbates symptoms in people with conditions such as irritable bowel syndrome.

The study did not differentiate between types of coffee, such as espresso versus brewed coffee, highlighting another limitation and an area for future research.

More research is needed

Dr. Khokhar says the study shows a link but not a direct cause and he thinks more controlled studies are needed to determine how specific varieties and preparation methods influence health outcomes.

“What I would like to see personally is if you controlled for what specific coffee a group of volunteers ingested and then either through blood or stool, looking at their exact gut microbiome diversification or pattern to see if that improved or how that changed from a robustness and a diversity point of view,” he says. “That would be more objective.”

The research also raises intriguing questions about the gut-brain connection. Scientists now understand that the gut microbiome plays a role in producing neurotransmitters like serotonin, which can influence mood, sleep and behavior.

Whether coffee can enhance mood indirectly by improving gut health remains a hypothesis but an appealing one for millions of daily coffee drinkers.

For now, the takeaway is about embracing moderation and self-awareness. As Dr. Khokhar puts it bluntly, “If it makes you feel bad, don’t do it.” But he says if people can tolerate coffee well, in moderation, it might not be as harmful as once thought and could even be helpful, but more research is needed to prove that.

If you have questions about what’s best for your health, talk to your [primary care provider](#).