

GENES, LACK OF SLEEP, AND POOR DIET CAN INFLUENCE CAFFEINE TOLERANCE.



THE COFFEE & ALCOHOL BUZZ

The pros and cons of your morning caffeine fix and happy-hour go-to on your overall digestive health.

BY RYAN HATCH

AMERICA IS a hopped-up nation. Every day, nearly two-thirds of Americans down a cup of coffee or more. About 56 percent of people over 18 say they have had at least one alcoholic drink in the previous month. And these trends are not slowing down—revenues for both continue to climb year after year. Perhaps it's no surprise: Caffeinated and alcoholic beverages are part of our culture, and they're often

woven into people's lives on a regular basis, and there seems to be an equal obsession with their effects. Study upon study details the good, the bad, and the ugly of their impacts on cancer and other diseases, along with how they shape mental health and personal relationships. The effects of caffeine and alcohol are commonly less known, however, when discussing gut health, a vital part of our overall well-being.

On caffeine—a central nervous system stimulant classified as a psychoactive drug—people report increased mental alertness and energy boosts. Elements of coffee (an eight-ounce cup has about 95 milligrams of caffeine) are also shown in about a third of people to keep things, well, moving along, by stimulating bowel movements and increasing muscle motility in the colon. Experts say drinking coffee can, in moderation, help build a healthy gut, especially when it's a blend like light roast, which contains antioxidants and more plant chemicals called polyphenols than darker blends. These help feed the microbiome.

But not everyone reacts well to caffeine, no matter how exceptional the coffee is; sometimes it's simply too powerful of a drug or a tolerance hasn't yet developed. "For some, the body doesn't welcome caffeine with open arms," says Tracy Lockwood Beckerman, RD, the author of the newly released book *The Better Period Food Solution*. "That's why we experience things like heart palpitations. We get jittery. We get sweaty."

Like so much else, experts say genetics and circumstances share in the blame. Insufficient sleep, poor diet, stress, and hormonal imbalance can lead to an adverse reaction to caffeine, but so too can body composition. The gene known as CYP1A2 helps determine the way humans process caffeine. Those with two "fast" versions (one from each parent) of CYP1A2 metabolize caffeine quickly and can better reap coffee's benefits. About half of us fall into this group. Around 40 percent have a

copy of each the fast and slow variation and metabolize caffeine at a more moderate pace. The final 10 percent carry two of the slow genes and, in turn, can suffer from more immediate and harsher effects, like nausea or diarrhea, especially if coupled with other factors. Fair warning: Belonging to "faster-metabolizing groups doesn't mean being granted carte blanche. "No matter how you slice it, [caffeine] becomes too much of an artificial stimulant," says Raphael Kellman, MD, the author of *The Microbiome Breakthrough: Harness the Power of Your Gut Bacteria to Boost Your Mood and Heal Your Body*. "It's a very fine balance."

Alcohol, in contrast to caffeine, is a depressant that does its own work on the gut. Too much can wreak havoc and damage tissue in the digestive tract, leading to malabsorption of key nutrients, along with bloating and gas. (While one can develop a tolerance for higher volumes of alcohol in the body, the gut never gets used to it, exacerbating the problems.) But recent research shows that the proper amount of alcohol and the proper kind might be just right. In August 2019, King's College London conducted one of the largest studies of its kind.

Researchers reported that people who drank red wine, like those who consume quality coffee, had a more diverse gut microbiome, since its compounds release polyphenols (found in fruits and vegetables); these also may lead to a lower risk of heart disease and being overweight. (Beer, white wine, and other spirits did not produce these same results.)

Still, it requires caution.



64
Percentage of adults in the U.S. who drink at least one cup of coffee per day.

SOURCE: National Coffee Association

Megan Rossi, PhD, the author of the recent book *Eat Yourself Healthy*, says that any more than two glasses of red wine starts to derail any benefits, since our guts can be sensitive to alcohol. "[Alcohol] can increase or change gut motility," Dr. Rossi says.

"People can feel quite bloated and full and get a bit of indigestion." At the same time, she adds, too much alcohol can speed things up elsewhere in the gut, which, she says, "is why often a lot of people can get diarrhea the next morning." However, there remains a silver (gut) lining: Dr. Rossi notes that even several nights out imbibing is "not devastating to the rest of your life" when it comes to our gut health.

Indeed, each person is unique. What's good for one person may not be for another. But, for now, go ahead and drink high-quality coffee and enjoy small amounts of red wine until your body tells you otherwise. ☉