

## New study links coffee consumption to decreased risk of colorectal cancer

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Credit: George Hodan/public domain

Whether you like your coffee black, decaf, half-caff or even instant, feel free to drink up. Researchers at the University of Southern California (USC) Norris Comprehensive Cancer Center of Keck Medicine of USC have found that coffee consumption decreases the risk of colorectal cancer.



The study examined over 5,100 men and women who had been diagnosed with colorectal <u>cancer</u> within the past six months, along with an additional 4,000 men and women with no history of colorectal cancer to serve as a control group. Participants reported their daily consumption of boiled (espresso), instant, decaffeinated and filtered coffee, as well as their total consumption of other liquids. A questionnaire also gathered information about many other factors that influence the risk of colorectal cancer, including family history of cancer, diet, physical activity and smoking.

"We found that drinking coffee is associated with lower risk of colorectal cancer, and the more coffee consumed, the lower the risk," said Stephen Gruber, MD, PhD, MPH, director of the USC Norris Comprehensive Cancer Center and senior author of the study.

The data showed that even moderate coffee consumption, between one to two servings a day, was associated with a 26 percent reduction in the odds of developing colorectal cancer after adjusting for known risk factors. Moreover, the risk of developing colorectal cancer continued to decrease to up to 50 percent when participants drank more than 2.5 servings of coffee each day. The indication of decreased risk was seen across all types of coffee, both caffeinated and decaffeinated.

"We were somewhat surprised to see that caffeine did not seem to matter," Gruber said. "This indicates that caffeine alone is not responsible for coffee's protective properties."

Coffee contains many elements that contribute to overall colorectal health and may explain the preventive properties. Caffeine and polyphenol can act as antioxidants, limiting the growth of potential colon cancer cells. Melanoidins generated during the roasting process have been hypothesized to encourage colon mobility. Diterpenes may prevent cancer by enhancing the body's defense against oxidative damage.



"The levels of beneficial compounds per serving of coffee vary depending on the bean, roast and brewing method," said first author Stephanie Schmit, PhD, MPH. "The good news is that our data presents a decreased risk of colorectal cancer regardless of what flavor or form of coffee you prefer."

This extensive study was conducted by a research team led by Gad Rennert, MD, PhD, director of the Clalit National Israeli Cancer Control Center in Haifa, Israel, together with investigators at USC Norris. One advantage of this large, population-based study is that the results are representative of many coffee-drinking populations.

"Although coffee consumption in Israel is less common and with more type-variability than in the United States, our results indicate similarities in risk reduction with use consumption of various types of coffee," Rennert said.

The study is available in the April 1, 2016 issue of *Cancer Epidemiology*, *Biomarkers & Prevention*, which is published by the American Association of Cancer Research.

"While the evidence certainly suggests this to be the case, we need additional research before advocating for coffee consumption as a preventive measure," Gruber added. That being said, there are few health risks to coffee consumption, I would encourage coffee lovers to revel in the strong possibility that their daily mug may lower their risk of colorectal cancer."

Colorectal cancer is the third most common cancer that is diagnosed in both men and women in the United States, with nearly five percent of men and just over four percent of women developing the disease over their lifetime. The American Cancer Society (ACS) estimates that in the United States, over 95,000 new cases of colon cancer and 39,000 new



cases of rectal cancer will be diagnosed in this year alone.

## Provided by University of Southern California

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