Coffee Drinkers Live Longer, But Cancer Risk Unaffected

By Lila Abassi — December 21, 2015

In 2013, an estimated 83 percent of Americans drank coffee, according to the National Coffee Association, making the beverage a near-universal favorite in the United States. Coffee is the second most traded commodity on earth. There has been extensive research done to elucidate the risks and/or benefits of coffee for quite some time. And now there are findings supporting the life-extending benefits of the coffee bean.

In a paper published in the American Journal of Epidemiology, study authors used data from the Prostate, Lung, Colorectal and Ovarian (PLCO) Cancer trial, which was a large population-based cohort study in the U.S. that included questions about coffee consumption, among other things. There were a total of 90,317 adults without cancer enrolled between 1998-2001 and followed until 2009.

When data were sorted for potential confounders such as smoking, the researchers found coffee drinkers had a lower hazard ratio for overall mortality, in comparison to non-coffee drinkers, and hazard ratios were lowest for those who drank 4-5 cups per day (< 1 cup: HR = 0.99; 1 cup/day: HR = 0.94; 2-3 cups/day: HR = 0.82; 4-5 cups/day: HR = 0.79; ¥ 6 cups/day: HR = 0.84).

These findings were similar for decaffeinated coffee as well.
The authors wanted to evaluate the association between coffee and the top 10 leading causes of death in the U.S. At the conclusion of the PLCO survey, 8,718 deaths occurred in the population. They found an inverse relationship (the more coffee consumed, the fewer deaths) between coffee consumption (decaffeinated, caffeinated and use of additives such as cream and sugar) and deaths from heart disease, chronic respiratory diseases, diabetes, pneumonia and influenza, and intentional self-harm, but not cancer. Associations between coffee consumption and Alzheimer's disease or kidney disease were not statistically significant.

Coffee's beneficial side effect profile is thought to occur by reducing inflammation, improving lung function, improving insulin sensitivity and reducing depression.

Coffee contains numerous biologically active compounds, including phenolic acids, potassium, and caffeine, according to the study's lead author Dr. Erikka Loftfield of the National Cancer Institute in Rockville, Maryland, as told to MedPage Today. Although coffee drinking has also been inversely associated with the incidence of certain cancers, like liver, in epidemiological studies, we did not observe an association between coffee and overall cancer mortality. This may be because coffee reduces mortality risk for some cancers but not others.

Phenolic acids are plant metabolites that are thought to play a protective role against oxidative damage potentially conferring some protection against coronary heart disease, stroke and cancers. The role of coffee's metabolite, theophylline, is well known and has been in use to treat a variety of lung diseases.

The authors do mention that the bulk of the study population were predominantly older, non-Hispanic whites and the study results may not be generalizable to other populations.

There has been mixed evidence to show that coffee consumption may play a beneficial role in lowering risk of a variety of cancers. Perhaps, if the study population could be followed for a longer period of time, the results may reveal that to be the case.