Coffee and Cancer Risk

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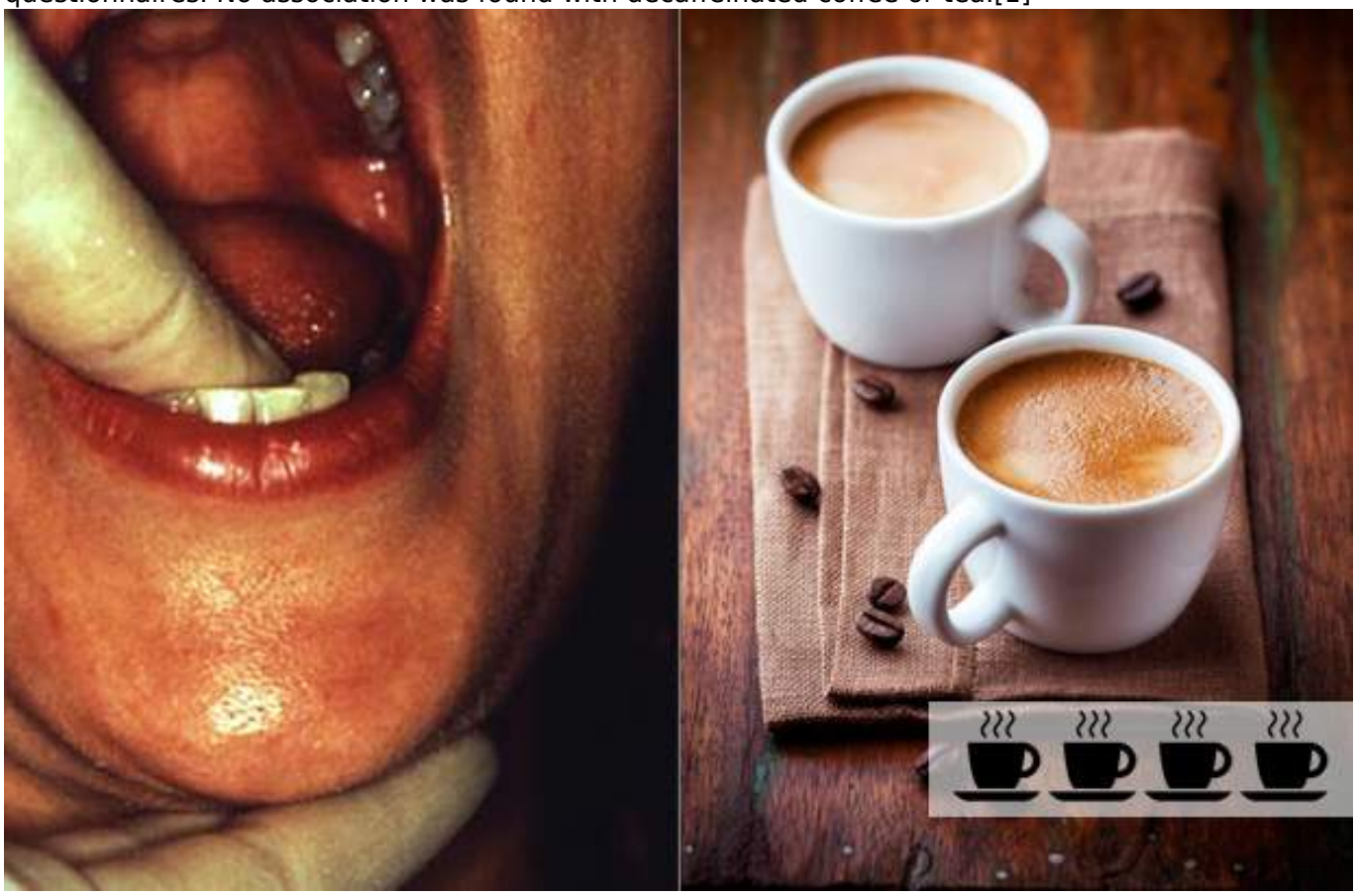
By Cancer Network Editors [1]

This slide show highlights recent studies that examined coffee consumption as it relates to cancer risk, including melanoma, breast and liver cancers, and more.
Source:

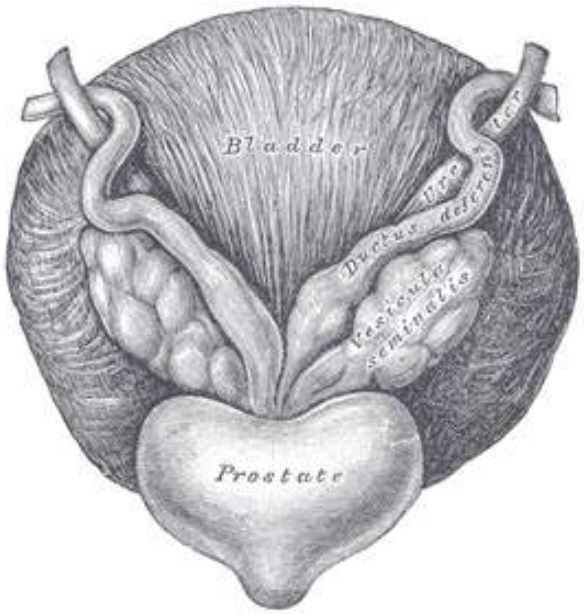
Over the years, numerous studies have examined coffee consumption as it relates to cancer risk. This slide show highlights research in glioma, head and neck cancers, hepatocellular carcinoma, prostate cancer, colorectal cancer, breast cancer, melanoma, and endometrial cancer.

A study conducted by researchers in the United Kingdom found that adults who drank five or more cups of coffee or tea a day had a 40% lower risk of being diagnosed with glioma (relative risk = 0.60; 95% CI, 0.41-0.87; P = .04). The researchers examined 335 cases of gliomas from three cohort studies and assessed coffee and tea intake at baseline and during follow-up using food frequency questionnaires. No association was found with decaffeinated coffee or tea.[1]



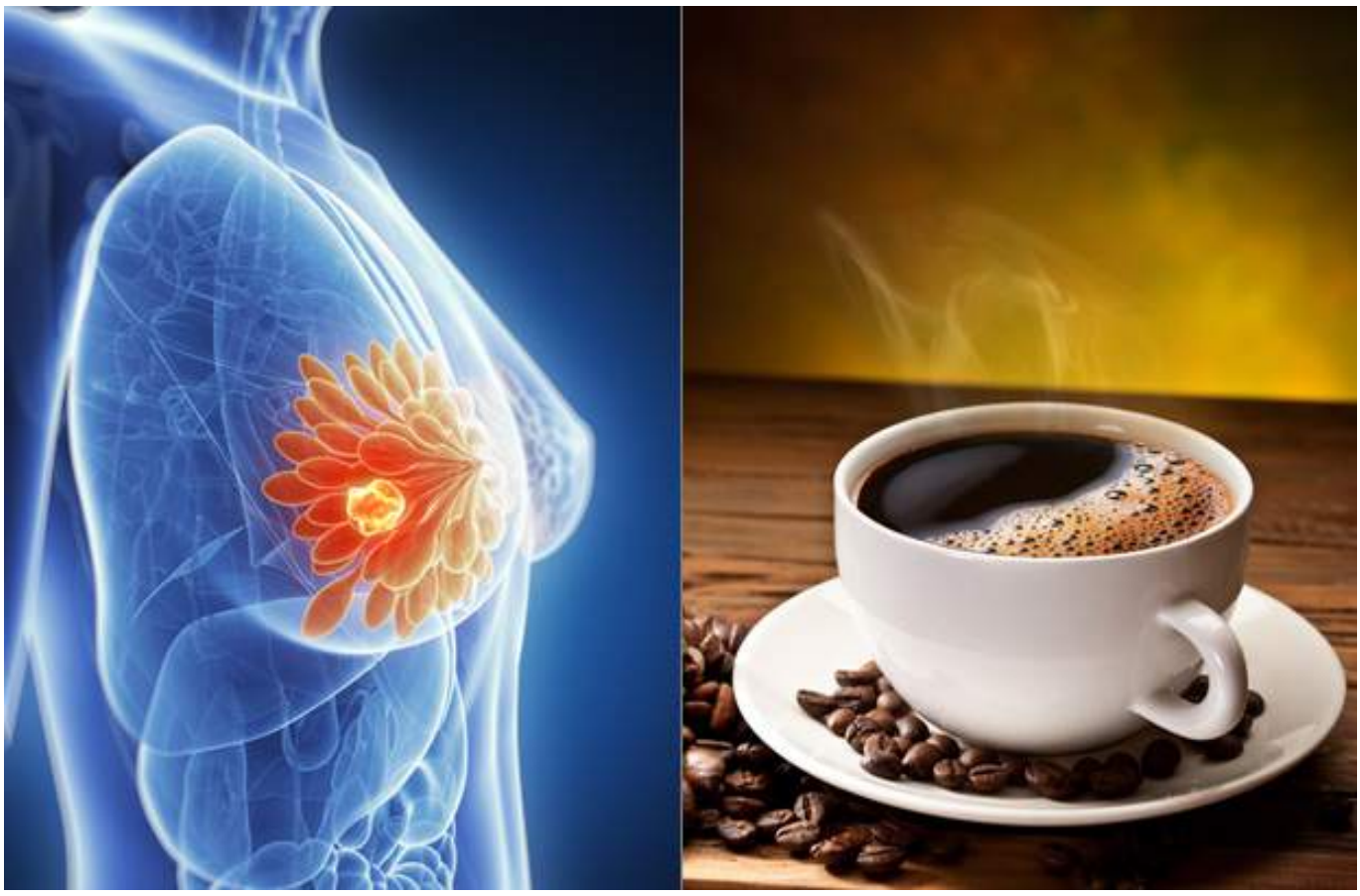
An International Head and Neck Cancer Epidemiology Consortium study found that drinking 4 cups of caffeinated coffee per day was associated with a 39% reduced risk of pharyngeal and oropharyngeal cancers (odds ratio = 0.61; 95% CI, 0.47–0.80). The researchers pooled data from nine case-control studies of head and neck cancers, including 5,139 cases and 9,028 controls. No association was found with laryngeal cancers. There was not enough data on decaffeinated coffee intake.[2] Photo (right) © B. and E. Dudzinscy/Shutterstock.com.

Greater coffee consumption results in lower risk of developing hepatocellular carcinoma, the most common type of liver cancer. Coffee drinkers who consumed one to three cups per day had a 29% lower risk of developing hepatocellular carcinoma. Those who drank four or more cups of coffee per day had their risk reduced by 42% compared with those who drank on average less than one cup per day. The prospective study included almost 180,000 men and women. The coffee consumption and liver cancer link was independent of age, gender, ethnicity, body mass index, smoking or alcohol consumption, diabetes, and hepatitis infection.[3] Image (left) © Sebastian Kaulitzki/Shutterstock.com; (right) © Iryna1/Shutterstock.com.



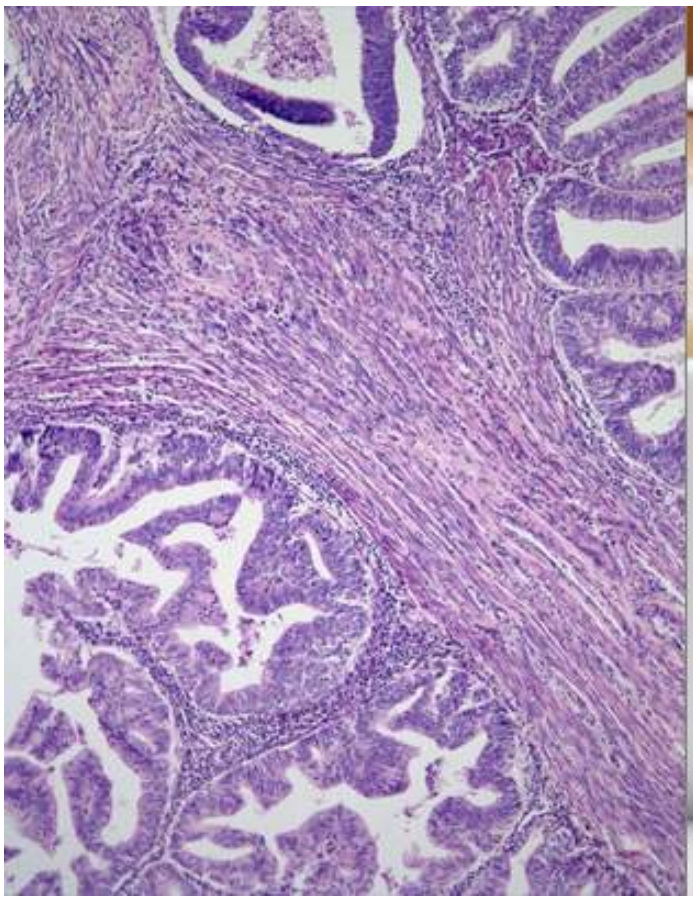
Researchers investigated whether there was an association between prediagnostic coffee and tea intake and the risk of prostate cancer recurrence/progression. The pattern of coffee and tea consumption was assessed for the 2-year period before diagnosis. Prostate cancer–specific outcomes were determined using a follow-up survey with a median follow-up of 6.4 years. One hundred and forty prostate cancer recurrences/progression cases were reported. Coffee intake was associated with a reduced risk of prostate cancer recurrence/progression; the adjusted hazard ratio for ≥ 4 cups/day vs ≤ 1 cup/week was 0.41. No association was found between tea intake and prostate cancer recurrence/progression.[4]

The National Institutes of Health-AARP Diet and Health Study followed 489,706 men and women who completed a baseline questionnaire of demographics, diet, and lifestyle for a median of 10.5 years. Approximately 16% of participants drank more than 4 cups of coffee per day. Compared with nondrinkers, drinkers of 4–5 cups and more than 6 cups had a lower risk of colon cancer, particularly of proximal tumors. There was no association seen with tea intake.[5] Image (left) © Sebastian Kaulitzki/Shutterstock.com.



A meta-analysis that included 37 published articles, involving 59,018 breast cancer cases and 966,263 participants, found an inverse association between coffee/caffeine and breast cancer risk for postmenopausal women, with a strong and significant association for coffee with breast cancer risk for BRCA1 mutation carriers. The risk of breast cancer decreased by 2% (P = .05) for every two cups/day increment in coffee intake, and 1% (P = .52) for every 200 mg/day increment in caffeine intake.[6] Image (left) © Sebastian Kaulitzki/Shutterstock.com; (right) © Valentyn Volkov/Shutterstock.com.

Researchers found that consumption of four or more cups of caffeinated coffee per day was associated with a 20% decreased risk for malignant melanoma, using data from a food frequency questionnaire that was part of the National Institutes of Health-AARP prospective cohort study. No decreased risk for melanoma was linked to decaffeinated coffee.[7]



Researchers assessed whether 84 nutrients and foods could be linked to endometrial cancer risk,

using dietary questionnaire results from three prospective studies. They found that drinking coffee multiple times a day may decrease the risk of endometrial cancer in women. In one of the studies, women who drank three cups of coffee per day—about 750 grams—had a 19% lower risk of endometrial cancer compared with women who drank less than one cup of coffee per day. Data from a different study cohort found that those who drank four cups of coffee per day—about 1,000 grams—had an 18% lower risk of endometrial cancer compared with those who did not drink coffee.[8] Image (right) © gresei/Shutterstock.com.

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