

# Ovarian Cancer Risk Not Affected By Alcohol and Smoking, But Reduced By Caffeine

Atlanta 2008/01/22 -A new study has found that cigarette smoking and alcohol consumption do not have an effect on ovarian cancer risk, while caffeine intake may lower the risk, particularly in women not using hormones. The study is published in the March 1, 2008 issue of *CANCER*, a peer-reviewed journal of the American Cancer Society.

Various studies have assessed the potential link between modifiable factors such as smoking or caffeine and alcohol intake and have generated conflicting results. To help clarify these associations, Dr. Shelley S. Tworoger, of Harvard Medical School and the Harvard School of Public Health, and colleagues examined ongoing questionnaire data from the Brigham and Women's Hospital-based Nurses' Health Study, which includes 121,701 US female registered nurses. The Nurses' Health Study cohort was established in 1976, when women aged 30-35 completed and returned initial questionnaires. Every two years, questionnaires are sent to the women to update exposure variables and document newly diagnosed diseases.

Dr. Tworoger and her co-investigators prospectively examined associations between smoking and ovarian cancer risk among 110,454 women and between alcohol or caffeine and ovarian cancer risk among 80,253 women, all followed between June 1, 1976 and June 1, 2004. For the smoking analyses, they identified 737 confirmed cases of epithelial ovarian cancer, and for the dietary analyses, they identified 507 cases.

There was no association between current or past smoking and ovarian cancer risk, however smoking status, duration, and pack-years were significantly associated with risk of mucinous tumors, a rare form of ovarian cancer. The authors also found no association between alcohol consumption and ovarian cancer risk. However they observed an inverse trend of risk with total caffeine and caffeinated coffee intake, but no association with decaffeinated coffee. The potential reduction in risk with higher caffeine intake appeared to be strongest for women who had never used oral contraceptives or postmenopausal hormones.

The authors concluded that "reducing alcohol intake and cessation of smoking is not likely to have a substantial impact on risk of ovarian cancer." They add that "the possibility that caffeine may reduce ovarian cancer risk, particularly for women who have not previously used exogenous hormones, is intriguing and warrants further study, including an evaluation of possible biological mechanisms."

Article: "Caffeine, Alcohol, Smoking, and the Risk of Incident Epithelial Ovarian Cancer," Shelley S. Tworoger, Dorota M. Gertig, Margaret A. Gates, Jonathan L. Hecht, and Susan E. Hankinson. *CANCER*; Published Online: January 22, 2008 (DOI: 10.1002/cncr.23275); Print Issue Date: March 1, 2008.

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