

# Sugar-sweetened beverage consumption increases endometrial cancer risk

November 22 2013

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Postmenopausal women who consumed sugar-sweetened beverages were more likely to develop the most common type of endometrial cancer compared with women who did not drink sugar-sweetened beverages, according to a study published in *Cancer Epidemiology, Biomarkers & Prevention*, a journal of the American Association for Cancer Research.

Postmenopausal women who reported the highest intake of sugar-sweetened beverages had a 78 percent increased risk for estrogen-dependent type I endometrial [cancer](#) (the most common type of this disease). This association was found in a dose-dependent manner: the more sugar-sweetened beverages a woman drank, the higher her risk.

"Although ours is the first study to show this relationship, it is not surprising to see that women who drank more sugar-sweetened beverages had a higher risk of estrogen-dependent type I endometrial cancer but not estrogen-independent type II endometrial cancer," said Maki Inoue-Choi, Ph.D., M.S., R.D., who led this study as a research associate in the Division of Epidemiology and Community Health of the University of Minnesota School of Public Health in Minneapolis. "Other studies have shown increasing consumption of sugar-sweetened beverages has paralleled the increase in obesity. Obese women tend to have higher levels of estrogens and insulin than women of normal weight. Increased levels of estrogens and insulin are established risk factors for endometrial cancer."

Because this study is the first to show the association between high sugar-

sweetened beverage consumption and [endometrial cancer](#), such findings need replication in other studies, according to Inoue-Choi.

Inoue-Choi and colleagues used data from 23,039 [postmenopausal women](#) who reported dietary intake, demographic information, and medical history in 1986, prior to the cancer diagnosis, as part of the Iowa Women's Health Study.

Dietary intake was assessed using the Harvard Food Frequency Questionnaire (FFQ), which asked study participants to report intake frequency of 127 food items in the previous 12 months. A typical portion size for each food item was provided to give study participants a sense of scale.

As reported in the study, the FFQ included four questions asking usual intake frequency of sugar-sweetened beverages, including 1) Coke, Pepsi, or other colas with sugar; 2) caffeine-free Coke, Pepsi, or other colas with sugar; 3) other carbonated beverages with sugar (e.g., 7-Up); and 4) Hawaiian Punch®, lemonade, or other noncarbonated fruit drinks.

"Sugar-free soft drinks" included low-calorie caffeinated and caffeine-free cola (e.g., Pepsi-Free®), and other low-calorie carbonated beverages (e.g., Fresca, Diet 7-Up, and Diet Ginger Ale).

The "sweets and baked goods" category comprised 13 items in the FFQ, including chocolate, candy bars, candy without chocolate, cookies (home-baked and ready-made), brownies, doughnuts, cakes (home-baked and ready-made), sweet rolls, coffeecakes or other pastries (home-baked and ready-made), and pies (home-baked and ready-made).

The researchers categorized the sugar-sweetened beverage consumption patterns of these women into quintiles, ranging from no intake (the

lowest quintile) to between 1.7 and 60.5 servings a week (the highest quintile).

Between 1986 and 2010, 506 type I and 89 type II endometrial cancers were recorded among the women Inoue-Choi and colleagues studied. They did not find any association between type I or type II endometrial cancers and consumption of sugar-free soft drinks, sweets/baked goods, and starch.

"Research has documented the contribution of sugar-sweetened [beverages](#) to the obesity epidemic," said Inoue-Choi. "Too much added sugar can boost a person's overall calorie intake and may increase the risk of health conditions such as obesity, diabetes, heart disease, and cancer."

Provided by American Association for Cancer Research

Citation: Sugar-sweetened beverage consumption increases endometrial cancer risk (2013, November 22) retrieved 9 April 2024 from <https://medicalxpress.com/news/2013-11-sugar-sweetened-beverage-consumption-endometrial-cancer.html>

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