

Fructose-rich beverages associated with increased risk of gout in women

November 10 2010

Consumption of fructose-rich beverages, such as sugar-sweetened sodas and orange juice is associated with an increased risk of gout among women, although their contribution to the risk of gout in the population is likely modest because of the low incidence rate among women, according to a study that will appear in the November 24 print edition of *JAMA*. The study is being released early online to coincide with its presentation at the American College of Rheumatology annual scientific meeting.

Gout is a common and very painful inflammatory arthritis. "The increasing disease burden of gout in the United States over the last few decades (e.g., an annual incidence of 16/100,000 in 1977 vs. 42/100,000 in 1996) coincided with a substantial increase in soft drink and fructose consumption," the authors write. "Fructose-rich beverages such as sugar-sweetened soda and [orange juice](#) can increase serum uric acid levels and, thus, the risk of gout, but prospective data on the relationship are limited."

Hyon K. Choi, M.D., Dr.P.H., of the Boston University School of Medicine, and colleagues examined the relationship between intake of fructose-rich beverages and fructose and incidence of gout in a large group of [women](#). The study consisted of data from the Nurses' Health Study, a U.S. prospective cohort study spanning 22 years (1984-2006). The researchers analyzed data from 78,906 women with no history of gout at the beginning of the study and who provided information on intake of beverages and fructose through validated food frequency

questionnaires.

During 22 years of follow-up, the researchers documented 778 newly diagnosed cases meeting American College of Rheumatology survey criteria for gout. They found that increasing intake of sugar-sweetened soda was associated with increasing risk of gout. Compared with consumption of less than 1 serving per month, women who consumed one serving per day had a 74 percent increased risk of gout; and those with 2 or more servings per day had a 2.4 times higher risk. Diet soft drinks were not associated with the risk of gout.

Orange juice intake was also associated with risk of gout. Compared with women who consumed less than a glass (6 oz.) of orange juice per month, women who consumed 1 serving per day had a 41 percent higher risk of gout, and there was a 2.4 times higher risk with 2 or more servings per day. Also, compared with women in the lowest quintile (fifth) of free fructose intake, women in the highest quintile had a 62 percent higher risk of gout.

The authors note that although the relative risks of gout associated with fructose-rich beverages among women were substantial, the corresponding absolute risk differences were modest given the low incidence rate of gout among women.

The researchers add that their findings have practical implications for the prevention of gout in women, and that physicians should be aware of the potential effect of these [beverages](#) on the risk of gout. "Our data provide prospective evidence that fructose poses an increased risk of [gout](#) among women, thus supporting the importance of reducing fructose intake."

More information: *JAMA*.

2010;304[20]:[doi:10.1001/jama.2010.1638](https://doi.org/10.1001/jama.2010.1638)

Provided by JAMA and Archives Journals

Citation: Fructose-rich beverages associated with increased risk of gout in women (2010, November 10) retrieved 23 April 2024 from <https://medicalxpress.com/news/2010-11-fructose-rich-beverages-gout-women.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.