

## Blame Sweet Soda for Gout?

### Soft Drinks Worse Than Hard Liquor for Gout, but Diet Sodas OK

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Jan 31, 2008 -- For [gout](#), sweetened soft drinks are worse than hard liquor -- and nearly as bad as beer -- doubling the risk for heavy drinkers. [Diet](#) sodas, however, don't affect gout risk.

The findings come from a huge study of 46,393 male health professionals in Canada who filled out detailed questionnaires about their health and their diet every four years for 12 years. Over that time, 755 of the men developed gout.

Compared with men who almost never drank sugar-sweetened soft drinks -- fewer than one per month -- frequent soft-drink drinkers were significantly more likely to suffer gout:

- Two or more soft drinks each day upped gout risk by 85%.
- One soft drink each day upped gout risk by 45%.
- Five or six soft drinks each week upped gout risk by 29%.

The men who drank the most soft drinks had twice the gout risk of the men who drank the fewest soft drinks.

That's comparable to the gout risk of men who drink two to four [alcoholic](#) beverages a day.

Beer raises gout risk by 49% per daily serving. A daily serving of spirits raises gout risk by 15%. Sweetened soft drinks, find University of British Columbia researcher Hyon K. Choi, MD, PhD, and colleagues, raise gout risk by 35% per serving.

"This is the first study -- and a very large one -- linking these commonly consumed products to this common disorder," Choi tells WebMD. "We find that if you have high consumption of fructose your gout risk is doubled. And that is due to easily available sugary beverages."

It's a surprising finding, says Karen Atkinson, MD, MPH, chief of rheumatology at the Atlanta VA Hospital and assistant professor of medicine at Emory University.

"It is a shock," Atkinson tells WebMD. "Most of us think of purine-rich foods as those that increase gout risk because they feed directly into the uric acid pathway. Certainly fructose processed by the liver can affect that pathway, but this is not what we usually think of."

Atkinson warns that while the Choi study definitely links soft drinks to gout risk, it does not prove that cutting back on soft drinks will lower that risk.

"But most doctors would agree that high-fructose carbonated beverages don't have any nutritional benefit. You don't want to be pouring high-fructose soft drinks into your body," she says.

### Gout Risk: Food and Drink vs. Family History

Gout is an extremely painful form of [arthritis](#) in which uric acid crystals accumulate in the joints. It most often affects the big toe but commonly affects other joints in the leg. Men are more likely to suffer gout than are women, although women's risk greatly increases after menopause. Choi says about one in 10 people over the age of 60 develops gout.

## Gout Risk: Food and Drink vs. Family History continued...

"When it occurs you suffer really a lot for a week to two weeks," says Choi, a rheumatologist. "It is very severe [pain](#). Just putting your bed sheet on the joint hurts. Gout causes intense swelling and pain, one of the worst pains you can suffer."

Foods already known to cause gout have high levels of purine compounds. Such foods include red meat, organ meats, and shellfish. But diet isn't the only cause of gout. Many gout sufferers inherit a tendency to generate too much uric acid; others inherit an inability to efficiently eliminate uric acid in the urine.

That's why the American Beverage Association, which supports the soft drink industry, takes a dim view of the Choi findings. Maureen Storey, PhD, the association's senior vice president for science policy, says the Choi study failed to account for family history of gout.

"The most important risk factor for whether a person develops gout or not is family history," Storey tells WebMD. "All of the research that has been conducted on gout over the last century or so has shown that foods and beverages high in purines -- such as alcoholic beverages, beer, gravies, and certain kinds of meat -- are strongly linked to development of gout. Soft drinks don't have that in them."

What soft drinks do contain is high-fructose corn syrup. Unlike glucose, the sugar our bodies uses for fuel, fructose raises uric acid levels. High levels of uric acid are linked to gout. But Choi agrees with Storey that his study is the first to link fructose to gout.

Strengthening Choi's fructose hypothesis is his finding that diet sodas -- which don't have fructose -- don't alter gout risk. Moreover, Choi and colleagues find that people who eat lots of sweet fruits, such as apples and oranges, also up their gout risk.

"We find a similar level of increased gout risk from apples and oranges as from sweetened soft drinks, but the caution is misplaced here because these fruits offer benefits against other major disorders such as [stroke](#), [diabetes](#), and certain cancers," Choi says. "There may be certain limited situations, such as treatment-resistant severe gout, where reducing all sources of fructose may be of use. But overall, fruits are beneficial."

Choi and colleagues report their findings in the Jan. 31 online issue of the journal *BMJ*.

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