Could drinking too much soda lead to osteoporosis or kidney failure? [1]

Dear Alice,

Does drinking an excessive amount of soda contribute to osteoporosis or cause kidney failure?

Thank you,

Curious

Answer

Dear Curious,

You may want to screw the cap back on that cola! It appears that there is an association between soda consumption and osteoporosis, as well as an association between soda consumption and markers for kidney disease in women who have a low to normal Body Mass Index (BMI) [2]. As with most foods and drinks, moderation is key to good health. A little information can go a long way, so keep on reading to learn more about these links.

Studies have shown an association between regular intake of colas that contain phosphoric acid and negative effects on the bone. Researchers hypothesize that a high level of phosphoric acid may lead the body to tap the bones for calcium to neutralize acids. Alternatively, researchers believe that osteoporosis could be a result of diet displacement—that is, heavy soda drinkers may not be drinking enough milk or fortified juices that are good sources of vitamin D and calcium. Just to note, the link between soda and osteoporosis was previously thought to be due to the carbonation in the soda? research has shown this association to be false.

As for kidney function, studies have found that women with low to normal BMIs who drink more than two cans of soda daily have about double the risk of developing albuminuria (the presence of the protein albumin in the urine) relative to those who don't drink that much soda. Albuminuria is a marker for developing early kidney disease. Researchers believe that this effect is more pronounced in low to normal weight women, because obesity already damages the kidneys and the extra damage from soda is likely to be less observable. It is unknown why the same effect is not seen in men. Additionally, studies have shown mixed results on the relationship between soda consumption and the development and recurrence of kidney stones.
In any case, reducing soda consumption can’t be a bad thing. Not only are you playing it safe with regards to osteoporosis and kidney function, you’re also avoiding a lot of extra calories and damage to your teeth. For tips on cutting down, check out Getting off colas, sodas, pop, fizz...oh, whatever! [3]. Now raise your glass to better health!

Alice!
Category:
Nutrition & Physical Activity [4]
Food Choices & Health [5]
Optimal Nutrition [6]
Food for Thought [7]

Related questions

Calcium, milk, and osteoporosis [8]
Diet sodas and drinking calories [9]
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