Soda does not cause earlier menstruation in girls, period.

By ACSH Staff — January 28, 2015

In today’s don’t believe what you read entry, we have a real doozy.

It’s all over the news. Girls who drink more sugar sweetened soda have their first period a few months earlier than those who don’t.

The only problem with this study is, well, pretty much the whole thing. Had anyone bothered to actually read the paper [1], they might have been less accepting of the conclusion. This is because there are so many obvious flaws in the study that jump right off the pages. And they are not hard to spot. Let’s take a look at some.

The paper, Sugar-sweetened beverage consumption and age at menarche in a prospective study of US girls was published by a group from the Harvard School of Public Health an organization we have often criticized for their dependence upon large datasets and their tendency toward using data-dredging to exaggerate associations and implicitly claim a cause-and-effect link not justified by their data.

The essence of the paper is that girls, aged 9-14, who drank more than 1.5 sugary drinks per day reached menarche 2.7 months earlier than those who drank less than this. But do the data support the conclusion?

Hell, no, says ACSH’s Dr. Josh Bloom. There are so many problems here that I almost don’t know where to start. First, the data are determined from self-reporting questionnaires not the most reliable method. This isn’t awful. Some studies can only be conducted this way. This does not necessarily make them flawed.

But the rest of the problems are worse, and easy to spot. Dr. Bloom continues, The number of drinks per day 1.5 isn’t an intuitively obvious amount, which makes me suspect that it was intentionally chosen so that the data fit the conclusion. It is certainly possible, if not likely, that if they chose one drink or three instead, the results might have been quite different. But, the whole thing really begins to unravel when you examine the premise that your body can distinguish between added sugar and naturally occurring sugar. This is absolute nonsense.
The figure below pretty much says it all.

(Source: http://www.sugarstacks.com/beverages.htm [2])

It is clear that eight ounce servings of coke, sweetened iced tea, and juices all contain the same amount of sugar. Yet, the study found an effect on the age of a girl's first menstrual period in sodas which were sugar sweetened, but not in juices that contained the same amount of sugar, such as orange juice.

This is specifically stated by the authors: "Diet soda and fruit juice consumption were not associated with age at menarche."

Dr. Bloom says, This is pure insanity. Sugar is sugar, whether it is added by an orange tree or in a factory. Since the effects are seen only in sugar-sweetened soda, but not in (naturally) sugar-sweetened juices, the only conclusion I can reach is that it is the carbon dioxide in the soda that is responsible for early menstruation. This theory, if I were serious, would probably get me locked up in a facility, and rightfully so.

(And this conclusion is just as bad, since carbonated diet soda doesn't have any effect.)

He concludes, This type of study makes for great headlines, but lousy science. As usual, guess which one wins out?

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