Original Article:

Park S, Akinbami LJ, McGuire LC, Blanck HM. Association of sugar-sweetened beverage intake frequency and asthma among U.S. adults, 2013. Prev Med. 2016 Aug 2;91:58-61.

Review by: Gregory Metz, MD, AE-C

Summary:

Park et al recently published an interesting study evaluating the association between the frequency of consumption of sugar-sweetened beverages (SSB) in adults and asthma. It is well known that high intake of SSB is associated with obesity, cardiovascular disease and dental cavities, but the effects on the risk of asthma in adults in not well established.

In this study, information was gathered from the 2013 Behavioral Risk Factor Surveillance System which is a random digit dialed telephone survey conducted in part by the CDC. Participants were asked numerous questions including age, sex, race, ethnicity, smoking status, education level, weight, height, whether they had asthma and how many SSB they drank each day. Data from over 140,000 participants were analyzed and multivariable logistic regression was used to estimate the association between the frequency of SSB consumption and asthma.

Overall, 9.1% of participant self-reported having asthma. In those who did not drink SSB, 8.5% reported asthma compared to 12.1% in those consuming $\geq$ 2 SSB per day. When controlling for other variables, SSB consumption was not associated with asthma in obese adults. However, the most striking finding was that in non-obese adults, the odds of having asthma were much higher in those who drank $\geq$2 SSB per day (aOR 1.66, 95%CI=1.39, 1.99) compared to those with low intake of SSB.

There are many limitations to this study. First, it was a telephone study which can lead to participation bias. Next, all of the gathered information including asthma status was self-reported. There was also a low response rate to the survey. There are many reasons why an asthma educator should promote healthy diets which would include reduced consumption of SSB. Although these results need additional exploration, this study further supports the recommendation for reduced SSB intake in adults.