

## Sugar Cancer

### Sugar filled drinks linked to increased cancer risk

Higher exposure to sugary drinks is associated with increased risk of overall cancer and breast cancer. This French study involved over 101,000 participants who completed repeated 24-hour dietary records. The researchers found a significant correlation between consumption of sugary drinks with overall cancer (18% increase) and breast cancer risk (22% increase). Fruit juice intake was associated with a 12% increased overall cancer risk. No increased risk was noted with artificially sweetened drinks.



#### Abstract:

- Objective To assess the associations between the consumption of sugary drinks (such as sugar sweetened beverages and 100% fruit juices), artificially sweetened beverages, and the risk of cancer.

Design Population based prospective cohort study.

Setting and participants Overall, 101,257 participants aged 18 and over (mean age 42.2, SD 14.4; median follow-up time 5.1 years) from the French NutriNet-Santé cohort (2009-2017) were included. Consumptions of sugary drinks and artificially sweetened beverages were assessed by using repeated 24 hour dietary records, which were designed to register participants' usual consumption for 3300 different food and beverage items.

Main outcome measures Prospective associations between beverage consumption and the risk of overall, breast, prostate, and colorectal cancer were assessed by multi-adjusted Fine and Gray hazard models, accounting for competing risks. Subdistribution hazard ratios were computed.

Results The consumption of sugary drinks was significantly associated with the risk of overall cancer ( $n=2193$  cases, subdistribution hazard ratio for a 100mL/d increase 1.18, 95% confidence interval 1.10 to 1.27,  $P<0.0001$ ) and breast cancer (693, 1.22, 1.07 to 1.39,  $P=0.004$ ). The consumption of artificially sweetened beverages was not associated with the risk of cancer. In specific subanalyses, the consumption of 100% fruit juice was significantly associated with the risk of overall cancer (2193, 1.12, 1.03 to 1.23,  $P=0.007$ ).

Conclusions In this large prospective study, the consumption of sugary drinks was positively associated with the risk of overall cancer and breast cancer. 100% fruit juices were also positively associated with the risk of overall cancer. These results need replication in other large scale prospective studies. They suggest that sugary drinks, which are widely consumed in Western countries, might represent a modifiable risk factor for cancer prevention.

*Sugary drink consumption has increased worldwide over the past few decades, rising 40% since 1990. We already know from previous studies that sugary drinks are associated with increased risk of weight gain, obesity, type 2 diabetes, hypertension, and cardiometabolic death. There have been previous studies showing no increased risk of cancer from sugary drinks, but some of these have been funded by soft drink companies. This study looked at intake of sugary drinks and overall cancer risk as well as several subset types of cancers and found a relationship for overall cancer risk and breast cancer. So what is the mechanism? This could be partly explained by the effects of sugary drinks (and foods) on obesity. We know that excess weight is a strong risk factor for multiple cancers. Additionally, high sugar foods lead to high insulin levels and over time insulin resistance (you knew I'd get that in there) which can increase risk of cancers. There could also be other additives in the drinks (colorings, flavorings, etc.) which could be carcinogenic.*

*No one ever died of a soda deficiency. But ongoing soda and sugary drink intake could negatively affect your risk of cancer.*

*Sugary drink consumption and risk of cancer: results from NutriNet-Santé prospective cohort.*  
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