


rise after eating or drinking, our body reacts by producing insulin, and the release of insulin triggers the release of other substances including insulin-like growth factor 1 (IGF-1). These are critical steps for our bodies to use glucose as energy. However, insulin and IGF-1 are also hormones that can promote the growth of existing tumor cells. Because SSBs provide a high dose of sugar, some researchers have hypothesized that frequent SSB intake may cause dramatic spikes in our blood glucose levels, and the resulting release of insulin and IGF-1 in response may speed the development of existing tumor cells.

Obesity-Related Cancers Combined
In a study of 3,184 adults who were enrolled in the Framingham Offspring cohort and followed for about 20 years, there was no association between SSB intake and the risk of three common obesity-related cancers: breast, prostate, and colorectal cancer.(15)

In that study, researchers found there was an increased risk of developing these cancers for adults with the greatest sugary drink intake defined as SSB and fruit juice combined, but this was only true for adults with excessive central adiposity as measured by their waist circumference. Thus, these findings suggest that high intake of sugary drinks may exacerbate cancer risk among those with the greatest abdominal fat or with poor metabolic health. In comparison, a large study in Australia that followed more than 73,000 adults over 10 years of age found a positive association between increased SSB intake and the risk of obesity-related cancers that studied at 11 different obesity-related cancer sites combined(16). Interestingly, the Framingham Offspring Study found that the association between SSB intake and colorectal cancer risk was stronger in men than women, suggesting that SSB intake has a different impact on men and women. A 2007 review conducted by the World Cancer Research Fund (WCC) and the American Institute for Cancer Research (AICR) found no link between SSB intake and the risk of colorectal cancer, but analyses did not look specifically at SSBs. (17) In contrast, a more recent pooled analysis of 13 studies(18) found no link between SSB intake and pancreatic cancer risk, and found no link between SSB intake and pancreatic cancer risk(19). In contrast, researchers from the European Prospective Investigation into Cancer and Nutrition study (a.k.a., EPIC) examined data on more than 470,000 adults and found no link between SSB intake and pancreatic cancer(20) and a review of the data from 11 other studies also found no association between SSB intake and pancreatic cancer risk(21).

Other Cancer Sites Studied To Date
The findings from other large studies to date do not support a direct association between SSB intake and epithelial ovarian cancers(22), liver and biliary tract cancers(23)

Summary
Several large studies have examined the relationship between SSB intake and cancer risk while also accounting for socioeconomic factors and other lifestyle factors that might impact cancer risk such as diet, weight, and smoking. It is important to note that studying SSB intake and cancer risk is challenging. It is difficult to accurately measure what people eat and drink, especially over time, and studies inevitably use different methods of measuring other lifestyle factors that relate to cancer risk.

However, while findings from individual studies are mixed, the bulk of the evidence does not conclusively link SSB intake directly to cancer risk, with the exception of type 1 endometrial cancer among postmenopausal women.(23) Yet it is likely that frequent SSB intake increases the risk of obesity-related cancers because of the direct effect of weight gain. In fact, the World Cancer Research Fund and the American Institute for Cancer Research recommend avoiding SSBs to control weight gain and reduce cancer risk(24). Additionally, because of the high sugar content, a high SSB intake can increase the risk of diabetes, heart disease and other negative health outcomes including dental cavities and declining cognitive function among older adults(25).

What can I do?
Cutting SSBs out of your diet can be an effective step towards unsweetened iced-teas, or seltzers. If you’re not sure if your diet soda may increase the risk of diabetes and cardiovascular disease(26).