The Scoop on Sugary Drinks in Colorado

Added sugars make up about 13% of the average American's calorie intake. That number jumps to 16% among children and adolescents. This is roughly equal to 20 teaspoons of added sugar per day! The link between sugar and chronic disease is strong, and there is a push to reduce sugar intake as a way to lower rates of obesity and chronic diseases such as diabetes, heart disease, and cancer.
Beverages with added sugar are the largest source of sugar in Americans' diets, which has made them a major focus of public health. In the United States, the government limits the sale of sugary drinks in schools, and some cities around the US now have taxes on drinks with added sugars.

Soda Taxes
Boulder is one of the cities to most recently tax drinks with added sugar. The public voted for the tax in November 2016, and it will go into effect in July 2017. Beverage distributers are taxed two cents per ounce, a cost which may be passed on to the retailer and then to the consumer. The tax is expected raise $3.8 million in the first year, which will be applied towards public health initiatives, some specifically aimed at low-income residents.

The taxes are labeled as "soda taxes", but this is misleading, because they also include other sweetened beverages such as energy drinks, teas, and kombucha. In Boulder, the tax applies to any drink that has more than 5 grams (a heaping teaspoon) of added sugar in a 12-ounce drink. Milk and 100% juice are not included.

We do not know yet how Boulder's tax will affect sugar intake, health, or businesses. However, similar taxes have been effective at decreasing sugar consumption in other countries, such as Mexico.

Researchers estimate that over the next ten years, the tax in Mexico could lead to hundreds of thousands of fewer cases of chronic disease. In addition, reduced diabetes medical costs alone may save $983 billion dollars.

School Soda Bans

Children are some of the biggest consumers of sugary drinks, and childhood rates of obesity and chronic disease are high. To address this, in 2014 the federal government put limits on the foods and drinks that can be sold in school. Milk and 100% juice are allowed, but the size is restricted to 8 ounces for elementary schools and 12 ounces for middle schools. Only high schools can also sell other low-calorie or no-calorie drinks, such as diet sodas and flavored water.

Many states already had policies in place, and states can choose to have stricter limits, if desired. Colorado had a policy that banned diet sodas in high school, and limited milk and juice to 10 ounces in middle school, rather than 12 ounces. However, in 2016, the Colorado State Board of Education decided to drop its policy and follow the federal guidelines instead.

The decision to drop the more strict policy faced opposition, with opponents gathering thousands of signatures and speaking at board meetings. Many oppose the change because there is some evidence that even diet sodas can increase the risk for obesity and diabetes. Many parents feel that schools should support efforts to keep kids away from unhealthy foods. However, the Colorado State Board of Education argued that the change will reduce the burden of following two different regulations, and that parents should monitor children's intake, not the schools.

Healthy Alternatives to Sugary Drinks

All policy aside, next time you need to quench your thirst, think about what beverage you will choose. Consider the options below for a refreshing alternative to a sugar-sweetened beverage:

- Instead of soda, choose unsweetened sparkling water, now available in a variety of flavors!
- Add a handful of berries, diced melon, or some fresh mint to a pitcher of ice water for enjoyment all day long.
- Dilute 100% fruit juice with equal parts water to reduce the amount of sugar per serving.
- Try a cup of tea, whether herbal, green, or black. Serve hot or iced with fresh squeezed lemon or just a touch of honey for a bit of sweetness.
- In place of sugar or flavored syrup, try a dash of cinnamon to flavor your coffee instead!
- Choose a glass of milk for a nutritious snack or beverage with any meal.

The health risks that come along with consuming too many sugary drinks are well established, but luckily there are great alternatives. These low-sugar drinks will not only reduce your health risks, but they are easy and delicious, too! Cheers!

More on Sugar

Sugar is a natural source of carbohydrates found in many foods, including fruits, vegetables, milk, and grains. Carbohydrates are a vital energy source for body growth, development, and cognition. Often, when we talk about sugar, we are most commonly referring to the processed white granular stuff known as 'table sugar.' This type of sugar is the top food additive, by weight, in the U.S., but naturally occurring sugar from foods can provide all the calories we need without adding sugar. Consuming added sugar in excess of our caloric needs as a fuel source can lead to increased health risks.

Sugar itself can have a variety of names depending on the refinement and processing of the source, but when these are broken down during digestion, generally speaking, sugar is sugar. Using a different variation (such as confectioners or brown) or source (such as coconut or maple) may impart unique flavors or textures without over sweetening, while serving functions for cooking and baking, like browning or fully dissolving.

Alternative Sweeteners

Sugar substitutes are grouped by whether or not they provide calories. Those that provide calories, like sugar, are called nutritive sweeteners. Sweeteners that provide little to no calories are non-nutritive sweeteners. The U.S. Food and Drug Administration (FDA) has approved several non-nutritive sugar substitutes as safe additives for intended use, by the general population, in foods and beverages, including:

- Saccharin
- Aspartame
- Acesulfame potassium (Ace-K)
- Sucralose
- Neotame
- Advantame
- Steviol glycosides (obtained from stevia plant. Stevia leaf and extracts are not approved.)
- Luo Han Guo or monk fruit extracts

These are referred to as high-intensity sweeteners, as they taste many times sweeter than sugar, meaning that you would only need a small amount for a sweet flavor. Much like consuming added sugars, consuming large amounts of high-intensity sweeteners is not recommended. Current scientific evidence does not show a health risk for the general population, yet undesirable side effects may occur, while certain at-risk individuals could have a harmful reaction. Sugar substitutes will not function the same way that sugar will in baking and cooking; recipe modifications and overall flexibility with the end result are needed.

Additional non-nutritive sugar substitutes, that end in the letters "-ol" are called sugar alcohols, because of how they are made, but they are not alcoholic. These include: sorbitol, xylitol, lactitol, mannitol,

erythritol, and maltitol. Sugar alcohols are lower in calories than sugar and often used in sugar-free products.

Other sources for sweet flavor, such as honey, agave nectar, molasses and syrups (maple, corn, or brown rice) are referred to as nutritive sweeteners. They provide calories and could provide small amounts of phytochemicals or minerals that may differ from table sugar in potential benefits or drawbacks. Also, nutritive sweeteners often have desirable flavors that can range from mild to strong, depending on the product and processing. These liquid sweeteners can be substituted for table sugar in a recipe, yet modifications will need to be made for suitable dry to wet ingredient ratio.

Additional Resources

Of course! For in-depth information on this topic, please check out the CSU Extension fact sheet Sugar and Sweeteners: http://extension.colostate.edu/topic-areas/nutrition-food-safety-health/sugar-and-sweeteners-9-301/

The United States Department of Agriculture National Agricultural Library (USDA NAL) bookmarked several reputable resources on the page Nutritive and Nonnutritive Sweetener Resources: https://www.nal.usda.gov/fnic/nutritive-and-nonnutritive-sweetener-resources

For more information about the safety and approved use of high-intensity non-nutritive sweeteners, go directly to the FDA guidance and regulation landing page: http://www.fda.gov/Food/IngredientsPackagingLabeling/FoodAdditivesIngredients/ucm397716.htm

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