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HOW DOES SUGAR AFFECT YOUR HEALTH?

There is no doubt that the consumption of sugar has become an issue in America and American's health as nearly 50% of Americans are obese and the prevalence has been increasing over the years. A well balanced diet is essential in not only keeping us healthy, but also reducing the risk of chronic conditions such as heart related issues and diabetes. When learning non-pharmacological treatment for chronic diseases such as hypertension, diabetes, hyperlipidemia, etc. the number one treatment mentioned is diet. Sugar can affect our health in negative ways, but when consumed in moderation, it may not be as harmful as it seems.

In a webinar presentation titled "Sugar Toxicity: Why Sugar is Ruining Your Health" by Terry Lemerond from Terry Talks Nutrition, there are many points that he mentions that hold truth, but there are also some concepts that do not resonate with some of the research that has been done. He states that sugar is one component that contributes to obesity, as the American diet consists of 70-90% of carbohydrates and sugars¹. According to the World Health Organization, an average person should not be consuming more than 10% of free sugars (~200 calories) as their daily calorie intake², but this can add up very quickly if one consumes soft drinks such as Coca-Cola - which contains 39 grams of sugar which is nearly 80% of the recommended intake. Additionally, sugars can easily add up from food items where we do not expect large amounts of sugar to be in, hence these are called "hidden sugars". For example, condiments such as ketchup could contribute

significant quantity of sugars when consuming more than the serving size and most people tend to view these contributions very lightly and do not even take them into consideration. Ketchup, and most condiments typical serving size is one to two tablespoons and in one serving size, it can contain about 4 grams of sugar. While it does not seem like much when following the nutritional label, but as stated above, consumers rarely adhere to the serving size. Another common food consumed that most people deem "healthy" are smoothies. These beverages usually contain additional sugars along with the natural sugars from the fruits which can easily cause a person to consume more than the recommended amount. Additionally, blended fruits are not as beneficial compared to whole fruits as blending them breaks down the nutritionally important fiber. Although, smoothies without the added sugars can be a healthier alternative to soda as one can get the daily recommended dose of fruits, if the serving size is equal to whole fruits when consumed and it could possibly lower glycemic levels³. Sugar does have some benefits as it is a source of energy in humans, but excess intake can induce compulsive eating which leads to increased weight⁴. Sugars could make a person "fat" when it compromises a large portion of one's daily diet, especially when completely overlooking the nutritional guidelines, but what truly makes someone "fat" is the excess intake of calories. A common misconception about consuming excess sugar is that it will cause diabetes. This statement has been disproven many years ago. Sugar may be associated with diabetes as it can cause weight gain and possibly obesity, which is a risk factor of diabetes, but sugar may not be a causal factor. According to the University of Rochester Medical Center, eating sugar does not cause diabetes as carbohydrates are broken into glucose which is the body's primary energy source and is regulated by hormones in the body⁵. It states that diabetes is mainly caused by an impairment in insulin secretion and/ or function. With so many products on the market that contain added sugars, artificial sweeteners have been rising recently as a "healthier" option. Currently, there is still ongoing research on whether artificial sweeteners are good or bad for our health. There have been multiple statements made that artificial sweeteners can cause cancer, but in one article titled "Sugar Substitutes: Mechanism, Availability, Current Use and Safety Concerns", it stated that the possible risks of artificial sweeteners



to induce cancer seems negligible ⁶. The same article also stated that the comparison of the aspartame and the placebo groups had no difference in blood pressure, glucose, or lipid profiles. They may help in some ways for someone who is looking for lower calorie options, but there may not be any health benefits. In an article titled “The Truth about Artificial Sweeteners”, it stated that although it may reduce caloric intake, they may not have any benefits on controlling diabetes as they may alter insulin sensitivity, but they still may be a “healthier” alternative compared to the typical added sugars for someone who is obese or has chronic health issues ⁷.

Sugar is one of the major issues in our diet but consuming it in moderation is not harmful to our health either. Sugar is easily accessible and found in nearly everything in the grocery store. Unfortunately, many of our unhealthy options tend to be cheaper than the healthier choices, so it is not as simple as telling someone to go on a diet if they do not have the budget for it. Additionally, food deserts can restrict access to healthy food. The Annie E. Casey Foundation stated that more than 33% of residents have to travel an inconvenient distance to reach the nearest grocery store (at least 1 mile in urban areas and 10 miles in rural areas) ⁸. According to the USDA, 12.8% (17 million) of US households were food insecure at some point during 2022 which increased from 2021 (~11%), so it is important from a primary care provider’s perspective to take these issues into consideration when adjusting someone’s health regimen as we may not know their current living situation ⁹. Sugar may have negative effects on the body, but it is not the sole contributor for every health issue, as a person can be relatively healthy, but may have the risk factors for diabetes such as ethnicity or family history. It is essential to understand a patient’s past medical history, lifestyle, living conditions, etc., when assessing the proper treatment for their diagnosis.

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