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SUCROSE - SWEET POISON FOR MASSES

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Abstract:

Added sugar is the worst ingredient in the modern diet and can be dangerous to everyone's health. This is simply because it contains no nutrients and has detrimental effects on overall health. It is rightly said: "Sugar is like sweet poison." It is important to understand what are the reasons that make added sugar a sweet poison. Sugar is naturally found in all types of carbohydrate-containing foods, including all vegetables, fruits, grains, and dairy products. Consuming natural sugar is good for your health. This is because these foods also contain other nutrients such as a large amount of fibre, essential minerals, and antioxidants, and dairy products contain calcium and protein. These foods are slowly digested and provide a continuous supply of energy for the body, while also promoting overall health. On the other hand, the addition of sugar in foods like cans and energy drinks, baked goods, puddings, chocolates, ice cream, and candy leads to health problems. Sugar is also known as sucrose (table sugar), a combination of two monosaccharides: glucose and fructose. Sugar offers no nutritional value and no health benefits. Therefore, it is like an empty calorie intake or a sugar poison that could be charging your body with.

Keywords: Nutritional Value, Monosaccharides, Natural Sugar, Health Problems. Diabetes **Introduction:**

A lot of people are aware that too much sugar is bad for them, but that doesn't stop them from consuming literally heaps - the average Indian consumes about 20 pounds of sugar - of sweet poison. The problem is, most people don't know why sugar is "bad" and the substance is highly addictive. In this three-part series, we'll explore the effects of sugar on the body, the sugar industry, and how to reduce and eat a healthy amount of sugar.

India has the highest number of adults with type 2 diabetes in the world. The International Diabetes Federation estimates that there were 72 million cases of diabetes in India in 2017. By 2045, that number is expected to more than double. According to the World Health Organization, diabetes is now the seventh leading cause of death in the world.

Type 2 diabetes is commonly referred to as "sugar" because it is a lifestyle disease caused by consuming too much sugar. The pancreas produces insulin which regulates blood sugar by

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converting it into glucose. The glucose is then stored in fat cells, red blood cells, and muscle cells throughout the body, which can then be used for energy. If a person regularly ingests too much sugar, their pancreas will produce too much insulin and cells in the body will develop resistance to insulin. This means that glucose cannot be easily stored in the cells of the body, causing excess sugar in the blood. As a result, the pancreas stops producing insulin and therefore all the sugar consumed remains in the blood. Some researchers call type 3 diabetes Alzheimer's because it occurs when there is resistance to insulin in the brain.

Throughout history, sugar has been a quick source of energy that has helped humans survive. Now that food is mass produced, we no longer need to consume sugar to survive. But evolution has not adapted our brains to this new trend of easy access to food. Since dopamine is released to reward us each time we do something that helps us survive, the brain always produces large amounts of dopamine, or the "wellness" hormone, when we eat sugar. Medications cause the brain to release abnormal amounts, about 2 to 10 times the normal amount, of dopamine. By adding sugar to most foods, the food industry has enhanced the addictive property of sugar. Processed foods, like ketchup, yogurt, and oatmeal, are fortified with sugar. Consuming too much sugar causes the brain to release too much reward hormone, which numbs parts of the brain. Over time, we need to eat more sugar to feel good. However, this "good feeling" only lasts 15 to 40 minutes and is inevitably followed by an accident. Thus, sugar causes the vicious cycles of intense cravings that many of us combat throughout the day. Thus, excessive consumption of sugar is linked to neurological problems such as depression, anxiety, dementia and even Alzheimer's disease. Sugar also affects memory and learning by literally slowing down the brain.

Three Categories of Sugar

To detect healthy and unhealthy foods it's important to know what natural, added and free sugars refer to. A public report by The Food Safety and Standards Authority of India defines the three categories of sugar as follows:

Natural Sugars: "Naturally built into the structure of foods such as fruits and vegetables... and milk."

Added Sugars: "refers to sugars and syrups added to foods and drinks during processing and preparation."

Free Sugars: "refers both to added sugars, like sucrose or table sugar, and sugars naturally present in honey, syrups, fruit juices and fruit concentrates.

Most free sugars consumed are added to foods and drinks. Free sugars do not include sugar

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that is naturally built into the structure of foods or sugars naturally present in milk and milk products."

By avoiding foods with high amounts of added and free sugars, you can make sure you are consuming a healthy amount of sugar. The World Health Organization recommends 6 teaspoons (25g) a day.

Is Sugar Toxic -

On May 26, 2009, Robert Lustig gave a lecture called "Sugar: The Bitter Truth," Lustig is a specialist on paediatric hormone disorders and the leading expert in childhood obesity at the University of California, San Francisco. The viral success of his lecture, though, has little to do with Lustig's impressive credentials and far more with the persuasive case he makes that sugar is a "toxin" or a "poison," terms he uses together 13 times through the course of the lecture, in addition to the five references to sugar as merely "evil." And by "sugar," Lustig means not only the white granulated stuff that we put in coffee and sprinkle on cereal — technically known as sucrose — but also high-fructose corn syrup, which has already become without Lustig's help what he calls "the most demonized additive known to man." Sugar is not just an empty calorie, he says; its effect on us is much more insidious. "It's not about the calories," he says. "It has nothing to do with the calories. It's a poison by itself."

The phrase Lustig uses when he describes this concept is "isocaloric but not isometabolic." This means we can eat 100 calories of glucose (from a potato or bread or other starch) or 100 calories of sugar (half glucose and half fructose), and they will be metabolized differently and have a different effect on the body. The calories are the same, but the metabolic consequences are quite different.

Some common health hazards related to sugar are:

1. Heart disease

Adding extra sugar to your diet can put you at high risk for various heart diseases that result in high blood pressure, obesity, and inflammation. A diet rich in added sugars stimulates the liver to release more harmful fats into the bloodstream. Therefore, diets high in sugar and sugary foods are better for avoiding sugar and keeping heart disease at bay.

2. Fatty liver diseases

Like glucose and other types of sugar, sucrose is also exclusively broken down by the liver. And having too much sugar in the form of table sugar could overload the liver and lead to non-alcoholic fatty liver disease. NAFLD is a medical condition characterized by an excessive build-up in the liver.

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3. Obesity and diabetes

The risk of obesity and insulin resistance has doubled in the last 30 years. Insulin is a hormone produced by the pancreas that regulates blood sugar. Obesity and insulin resistance are often caused by high sugar intake and are significantly associated with the risk of diabetes. Sugar can actually trick your brain into thinking you're not full, so you can tend to overeat. Some research even suggests that sugary foods and drinks actually make it harder for your body to regulate calories and therefore contribute to a cascade of risk factors and lifestyle diseases.

4. Accelerated skin ageing

Wrinkles are the most natural sign of aging, but premature wrinkles can appear on the skin due to poor food choices, such as eating too much sugar in the diet. Advanced glycation end products (AGEs) are compounds stimulated by the reaction between sugar and proteins within the body that also damage collagen and elastin, the agents that give skin elasticity and youth.

Instead of refined sugar, you could satisfy your sweet tooth with some healthy alternatives like fresh fruit, nuts, dried fruit, brown sugar, honey, dates, and coconut sugar. Even these in moderation!

Conclusion:

So next time you're eating added sugars in biscuits or even milk, be aware of the long-term effects of sugar overconsumption and the addictive nature of sugar. Although a scoop of ice cream now and then won't do any harm, it's better to avoid processed foods as much as possible since they often have little nutritional value but are packed with harmful preservatives, artificial colours and of course, loads of sugar. A healthy alternative is to make your own ice cream at home, so that you know what ingredients and how much go into it. Snacking on homemade and natural foods, such as fruits, nuts, seeds, whole grains, and vegetables, is also a positive lifestyle change. Once you remove added sugars from your diet you will enjoy the natural sweetness from foods. Sugary foods will become too sweet; They will taste like what they are: junk.Sugar offers no nutritional value and no health benefits. Therefore, it is like an empty calorie intake or a sugar poison that could be charging your body with.

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