

# Effect of Over Consumption and Lack of Sugar on Human Being

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**Abstract:** Overconsumption of sugars on health, particularly as a risk factor for overweight, obesity or diabetes mellitus. Current guidelines recommend a daily limit of intake, and notably a restriction on added sugars. Keto diets and intermittent fasting are trending in this era of sugar mistrust. However, the metabolic benefits are not yet clearly established, and the underlying risks should restrain the prescription of these diets to a population of carefully selected patients.

**Keywords** – Obesity, Diabetes, Drains Energy, Craving.

**Introduction** - Sugar is a sweet, crystalline substance obtained primarily from sugarcane and sugar beets. It is used as a sweetener in food and beverages. Chemically, sugar refers to a group of compounds known as carbohydrates, which include glucose, fructose, and sucrose. Sugar provides a quick source of energy, but consuming too much can have health implications, such as weight gain and an increased risk of diabetes. It's important to enjoy sugar in moderation as part of a balanced diet.

**Objectives** – The main objectives are as given below.

1. To clean and detoxify an individuals' body naturally.
2. To save the individuals from side effects of sugar.
3. To make the people of the country healthy and wealthy.
4. To make the people of the country useful in the development of our nation.
5. To increases the economic status of the people.
6. To minimizes the intake of medicines.
7. To reduces the cost of treatment of an individual at zero level.
8. To save the time of people from unnecessary treatments.
9. To improve the overall health of an individuals.

**Methodology** – By observing the lifestyle of an individual.

**Symptoms** – Signs and symptoms caused by the sugar will vary depending on how much sugar eat an individual. Some general signs and symptoms associated with sugar.

1. Digestive problems.
2. Energy crashes.
3. Frequently craving sugary foods and drinks.
4. Increased headaches.
5. Increased hunger or thirst.

6. Mood swings.
7. Skin related issues
8. Sugar causes glucose levels to spike and plummet
9. Sugar accelerates aging
10. Sugar causes tooth decay
11. Sugar affects cognition in children
12. Sugar can cause gum disease, which can lead to heart disease

**Weight Gain** – Obesity rates are rising worldwide and evidence suggests that added sugar often from sugar-sweetened beverages is a major contributor to obesity. Sugar sweetened drinks like Sodas, Juices and sweet teas are loaded with fructose, a type o simple sugar. Consuming fructose increase your hunger and desire for food more than glucose, the main type of sugar found in starchy foods. Additionally, animal studies show that excessive fructose consumption may cause resistance to leptin, an important hormone that regulates hunger and tells your body to stop eating. Also, drinking a lot of sugar-sweetened beverages is linked to an increased amount of visceral fat. A kind of deep belly fat associated with conditions with diabetes and heart disease.

**Risk of Heart Disease** – Evidence suggests that high-sugar diets can lead to obesity and. inflammation as well as high triglycerides, blood sugar and blood pressure levels all of which are risk factors for heart disease. Additionally, consuming too much sugar, especially from sugar – sweetened drinks, has been linked to atherosclerosis, a disease characterized by fatty, artery clogging deposits. A study in over 25,877 adults found that individuals who consumed more added sugar had a greater risk of developing heart disease and coronary complications

compared to individuals who consumed less added sugar. Not only does increased sugar intake increase cardiovascular risk, but it can also increase risk of stroke.

**Acne**— A diet high in refined carbs, including sugary foods and drinks, has been associated with a higher risk of developing acne. Foods with a higher glycemic index, such as processed sweets, raise your blood sugar more rapidly than foods with a lower glycermic index. Consuming sugary foods can cause a spike in blood sugar and insulin levels, leading to increased androgen secretion, oil production, and inflammation all of which play a role in acne-development. Additionally, many population studies have shown that rural communities that consume traditional, non-processed foods have much lower rates of acne compared to more urban, high-income areas where processed food is part of a standard diet.

**Risk of Type 2 Diabetes** – Diabetes is a leading cause of mortality and reduced life expectancy. Its prevalence has more than doubled over the past 30 year and projection estimate its burden will continue to rise. Excessive sugar consumption has been historically associated with an increased risk of diabetes. Eating large amount of sugar can indirectly raise diabetes risk by contributing to weight gain and increased body fat both of which are risks for developing diabetes. Prolonged high sugar consumption drives resistance to insulin, a hormone produced by the pancreas that regulates blood sugar levels. A study including individuals who drank sugar beverages for over a 4-year period found that increased consumption of sugary beverages including soft drinks and 100% fruit juice is associated with a higher risk for type 2 diabetes.

**Risk of Cancer** – Eating excessive amount of sugar may increase your risk of developing certain cancers. Diets high in sugar increase inflammation in your body and may cause insulin resistance, both of which increase cancer risk. A study in over 22,720 men source spanning over 9 years found that increased sugar consumption from sugar sweetened beverage was associated with a greater risk of prostate cancer.

**Risk of Depression** – A healthy diet can help improve your mood, a diet high in added sugar and processed Foods may contribute to change in mood and emotions. It may even increase your chances of developing depression. High sugar consumption has been linked to cognitive impairments, memory problems, and emotional disorders like anxiety and depression. Researchers believe that chronic systemic inflammation, inulin resistance, and a disrupted dopaminergic reward signaling system all of which can be caused by increased sugar consumption may contribute to sugar detrimental impact on mental health.

**Accelerate the Skin Aging Process**- Wrinkles are a natural sign of skin aging. However, poor food choices can worsen wrinkles and speed up the skin aging process. Advanced glycation end products (AGEs) are compounds formed by reactions between sugar and protein in your body. They

are suspected to play a key role in skin aging. AGEs damage collagen and elastin, which are protein that help the skin stretch and keep its youthful appearance. When collagen and elastin become damaged, the skin loses its firmness and begins to sag.

**Can Increase Cellular Aging** – Telomere are structure found at the end of chromosomes, which are molecules that hold part or all of your genetic information. Telomere act as protective caps, preventing chromosomes from deteriorating or fusing together. Although the shortening of telomeres is a natural part of aging, certain lifestyle choices can speed up the process. Consuming high amounts of sugar has been shown to accelerate telomere shortening, which increases cellular aging.

**Drains your Energy** – Foods high in added sugar quickly spike blood sugar and insulin levels, leading to increased energy. Product that are loaded with sugar but lacking in protein, fiber, or fat lead to a brief energy boost that's quickly followed by a sharp drop in blood sugar, often referred to as a crash. Having constant blood sugar swings can lead to major fluctuations in energy levels. A meta-analysis examining sugar's effect on mood found that carbohydrate consumption, especially sugar, lowers alertness within 60 minutes of consumption, and increases fatigue within 30 minutes after consumption. To avoid this energy-draining cycle, choose carb sources that are low in added sugar and rich in fiber. Pairing carbs with protein or fat is another great way to keep your blood sugar and energy levels stable.

**Lead to Fatty Liver** – a high intake of fructose has been consistently linked to an increased risk of fatty liver. Unlike glucose and other types of sugar, which are taken up by many cells throughout the body, fructose is almost exclusively broken down by the liver. In the liver, fructose is converted into energy or stored as glycogen. Large amounts of added sugar in the form of fructose overload your liver, leading to nonalcoholic fatty liver disease (NAFLD), a condition characterized by excessive fat buildup in the liver.

**Cognitive Decline** –. Excessive added sugar intake promotes inflammation, insulin resistance and stress in the body. Over time, these things can damage neurons and disrupt communication.

**Discussion** – Overconsumption and a lack of sugar in human beings can have notable effects on health, though they exist on opposite ends of the spectrum. Here's a closer look at both sides: Excessive sugar intake can lead to a variety of health problems. **Obesity and weight gain** added sugars are calorie-dense and can contribute to weight issues. **Diabetes** constantly high blood sugar levels strain the body's ability to manage insulin. **Heart Disease** overconsumption is linked to inflammation and increased triglyceride levels. **Tooth Decay** sugary foods and drinks promote the growth of harmful bacteria in the mouth.

**Energy Fluctuations** the "sugar rush" is often followed by an energy crash, affecting productivity and mood. It's a significant issue in modern diets, as sugar is hidden in many

processed foods and drinks, sometimes making it harder to control intake. On the flip side, insufficient sugar—or glucose, the body's primary energy source—can lead to Low Blood Sugar (Hypoglycaemia) symptoms include fatigue, dizziness, confusion, and fainting. Brain function decline the brain relies heavily on glucose to function, so deprivation can impair cognitive abilities. Physical weakness without enough glucose, muscles may feel weak or fatigued, affecting daily tasks. Mood swings lack of glucose can disrupt hormonal balance, leading to irritability and anxiety. Risk for ketoacidosis (in extreme cases) prolonged glucose scarcity forces the body to break down fat for energy, producing acidic ketones that can affect overall health. A healthy diet focuses on moderating sugar intake while ensuring the body has enough glucose from natural and nutrient-rich sources like fruits, vegetables, and whole grains. It's also worth noting that "added sugars" (such as those in sodas or candies) differ from natural sugars found in whole foods, which come bundled with fibers and nutrients that help regulate absorption.

#### Findings :

1. Maintain ideal weight.
2. Eat a healthy diet.

3. Maintain calorie intake.

#### Suggestion :

1. Avoid junk food and fast food.
2. Stop smoking and drinking.
3. Avoid excess sugar.
4. Eat natural sugar.
5. Avoid added sugar.
6. Eat alternatives of added sugar.

**Conclusion :** It is old says that "Health is Wealth". If health is well then, all things is in our hand. But being author of this paper, I want to aware the people of our country to minimize the intake of sugar by developing healthy active lifestyle. it is advisable to pay special attention to what you eat. avoid junk food simple carb as much as possible and avoid intake of medicines for the little reason. Make a healthy routine for long time with consistently will minimize the side effect of sugar.

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