



## SUGAR: THE MOST POPULAR DRUG WHICH IS LEGALLY SOLD!

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**ABSTRACT**

The drug you consume daily, the drug you buy very often, the drug which is found in each and every household of India: Sugar, the sweet poison! This research paper focuses solely on the observational study and findings of a nutrition therapist on the most popular drug which is legally sold: Sugar, the food nobody needs but everyone craves! As Cassie Bjork, world renowned dietician once said, "On the outside, sugar seems pretty harmless, but on the inside, it's killing us." The facts and findings of the study will help the readers to understand how the consumption of sugar paves way for infectious & lifestyle diseases in the long run. The study further describes the best yet healthy alternative of Sugar. Besides, it will help the readers to find out the instant way to cure seasonal flu and viral infection.

**KEYWORDS :** Sugar, Jaggery, Table Sugar, Natural Sugar, Ayurveda, Health

### WHAT MAKES SUGAR SO HARMFUL? SUCROSE – THE CULPRIT

Sucrose means table sugar, the sugar that we use in tea. Ideally, any food item which is good for our body, first analyzes the overall situation of the body before getting mixed into the blood stream. It analyzes the blood pressure and blood sugar levels of the body and then accordingly gets mixed into the blood stream drop by drop, slowly. Sucrose breaks all the laws of the body and enters into the blood stream as soon as we consume it, without analyzing the blood pressure or blood sugar level. As a result of which the blood sugar level increases rapidly. Yes, it is a source of energy and you do get the energy quickly when you consume table sugar. This is why doctors often recommend table sugar to patients. But does the body require so much of energy? How will body accommodate the extra sugar or extra energy? It gets hidden or it gets stored in some part of the body in form of fat. Body uses that extra sugar in case of emergency, like when the body detects low sugar levels, it immediately borrows that extra sugar from liver and temporarily use it to fulfill the requirement of sugar in the body. But what happens when you keep on increasing the consumption of table sugar not for a day, not for a week but for months, for years, for a decade? That extra sugar keeps on increasing. It gets deposited not once or twice but every day for years and years! Now, this extra sugar spreads in the whole part of the body and affects each and every organ of the body sooner or later. For example, if it gets stored in joints, then a person will have joint problems or arthritis. If it gets stored in kidney, it may lead to kidney dysfunction. If it gets stored in arteries, it will cause blockages and ultimately lead to heart diseases or heart attack. This won't happen in a day or month but may be after 5-10 years and you won't even realize the cause then.

### WHAT ABOUT NATURAL SUGAR THEN? i.e FRUCTOSE

For better understanding and clarification, let us refer Sucrose as artificial sugar and Fructose as natural sugar. Fructose is the type of sugar which is found in fruits & raw vegetables, hence called the natural sugar. Fructose is the sweetest of all sugar types but has the least impact on blood sugar levels. It is because, fructose, unlike sucrose, does not break the laws of body. Before entering the blood stream, it first analyzes the overall blood sugar level and if blood sugar is high, it will not get mixed into the blood stream. When the blood sugar level becomes normal then it will get mixed into the blood drop by drop and is digested slowly. Due to this, the blood sugar remains under control.

### Let's consider the example of Mango:

MANGO is a "must have" fruit for a diabetic. Mango contains fructose : glucose in ratio 3:1 and it's no rocket science that fructose controls the overall blood sugar level and thereby reduces it. This is why Ayurveda considers Mango as the King of all fruits!

### SUCROSE VS FRUCTOSE

In order to compare both, we must first understand the Glycemic Index.

Glycemic index is a number. It gives you an idea about how fast your body converts the carbs in a food into glucose. Two foods with the same amount of carbohydrates can have different glycemic index numbers.

The smaller the number, the less impact the food has on your blood sugar.

55 or less = Low (good)

56- 69 = Medium

70 or higher = High (bad)

Here, GI of Fructose = 19 and

GI of Sucrose = 65

So, by comparing the GI of both, we can see that the impact of sucrose on blood sugar level is 3 times more than fructose.

A study by University of Canberra's Health Research Institute, published in American Journal of Clinical Nutrition reveals that switching from sucrose to fructose lowers insulin and blood glucose in the obese and diabetics. The complex carbohydrates (fructose) found in vegetables, grains, and fruits are good for you; the simple sugars found in sodas, candies, icings, and packaged treats can do harm, at least when eaten in excess. It's as simple as that.

NOTE : When fructose is extracted from fruits and used in medications or refined or packed food items, then it becomes sucrose itself. It then behaves like sucrose, not fructose. That is why packed fruit juices not only lacks the necessary nutrients like fresh fruit juice but is also harmful for health because it behaves like added sugar or artificial sugar.

### SUGAR INTAKE RECOMMENDATIONS

As per World Health Organization, we should not consume more than 30 gm of sugar per day. As per American Heart Association –

38 gm per day (male); 25 gm per day (female)

Now, 1 tablespoon sugar = 15 gm.

A glass of coke (200 ml) = 21 gm of sucrose

One unit of Ice Cream (100 gm) = 21 gm of sucrose

Cadbury Milk Chocolate Bar (50 gm) = 25 gm of sucrose

Above examples are just for you to understand how much of sugar we actually consume in a day.

### SUGAR vs JAGGERY

Both of them are made from sugarcane juice but are processed differently. The first stage of the manufacturing of

jaggery and sugar is the same. This first step is the boiling of sugar cane juice. However, it changes from that point, which is explained below:

In case of sugar, after the initial boiling, the syrup is treated with charcoal to absorb unwanted particles and give a clear, transparent solution. This solution, when condenses and crystallizes, results in the formation of sugar.

In case of jaggery, there is no treatment with any kind of charcoal, nor there is any kind of crystallization. The syrup is boiled continuously until it is formed into a thick paste. It is then poured into molds to make blocks of jaggery of the desired quantities.

Since sugar goes to a rigorous industrial process while being prepared it loses all its nutritional value along the way and what you get in the end, is plain sucrose. On the other hand, jaggery manages to retain traces of iron, fiber and various mineral salts. Both jaggery and sugar are predominantly made up of sucrose, but there are some differences.

Sugar is made up of only sucrose (C<sub>12</sub>H<sub>22</sub>O<sub>12</sub>).

Jaggery is predominantly made up of sucrose (C<sub>12</sub>H<sub>22</sub>O<sub>12</sub>), with traces of mineral salts, iron, and some fiber.

Being one of the simplest available forms of sucrose, sugar is instantly absorbed in the blood and releases a burst of energy. This may prove harmful to organs such as the kidneys, eyes, and brain, particularly for patients with diabetes.

Jaggery is far more complex than sugar, as it is made up of long chains of sucrose. Hence, it takes time to digest. This provides energy for a longer time and is not harmful to the body.

#### OTHER HEALTHY ALTERNATIVES OF SUGAR...

##### Honey

Honey is a natural source of carbohydrates and is rich in proteins, minerals and vitamins. It is also known to purify the blood as well as maintain blood pressure levels. It is also used as a natural healing ingredient for sore throats or cold and cough. It also provides instant energy due to its fructose level.

##### Mishri

Mishri is a naturally sweet substance produced by using the sugarcane plant. It is the purest form of sugar without any chemicals in it. It is very different from table sugar. For centuries, it has been used in Ayurvedic medicines. The reason why sugar becomes unhealthy for us is due to the further processing and bleaching of raw sugar with sulphuric acid to get the perfect white crystals which is appealing to our eyes but are almost poisonous. Pure Mishri is not chemically processed this way.

##### Palm Jaggery

Palm jaggery, also known as karuppatti in Tamil is made from the extract of Palm Trees. It is extracted without using any chemical agents and hence all the natural mineral salts are retained without adding any preservatives of chemicals. It is also known as medicinal sugar as it cures health issues like constipation, indigestion and cough. It's also consumed during winters to keep the body warm.

##### Date Sugar

Made of Kharjura (or Dates), which are rich in vitamins, minerals, antioxidants and sugar, Ayurveda lauds this fruit for its various nourishing properties. Based on principles of Ayurveda, the madhura rasa in dates helps increase the moistness of tissues. It is heavy to digest and acts as body coolant.

#### SUGAR FROM AYURVEDIC PERSPECTIVE

Ayurveda considers SWEET taste as the most important of all six tastes. But here Ayurveda refers to natural sugars as discussed earlier which includes jaggery, honey, mishri, dates, sweet fruits etc. From an Ayurvedic perspective, refined sugars are considered both stale and over-stimulating. They are difficult to digest so can create disturbance and waste in the body (known as "Ama" in Ayurveda and considered to be the root cause of all disease). AYUR means LIFE and whatever Ayurveda recommends boosts immunity and increases prana (life). While on the other hand, the artificially processed sugars damages the immune system and decreases prana (life) in the body due to which a man consuming table sugar is likely to die early as compared to the one consuming natural sugar.

#### NATURAL SUGAR: NUTRITION THERAPY FOR SEASONAL FLU

Stop consuming sugar (table sugar/cheeni) for a month and see the change. Your fast food and sweet tooth cravings will reduce. Stop consuming sugar for a year and you will start disliking chocolates, sweets or any refined or artificially processed food items. It's because your sugar cravings will reduce or disappear. Not only this, you will also observe that you no longer suffer from seasonal flu, throat infection or fever since your immunity will then increase by ten times. You can prevent yourself from getting infected from viral or seasonal flu by just avoiding the artificially processed sugars and dairy products. And even if you get infected, it can be cured within a day or two by just consuming 0.2 gm of Vitamin C from natural sugar (on empty stomach two times a day). It can be either lemon or orange or any other fresh fruit you like. Use jaggery or jaggery powder instead of table sugar. Jaggery heals throat infection faster than any anti biotic and that too without any side effect.

#### CONCLUSION

The chemically processed sugar was first found by the Europeans in 11th century AD and in Bharata (India), it was found some 2500 years ago. Europeans had no alternative for sweet taste back then and therefore the production of sugar was like a revolution for them. But we have had raw honey, mishri, jaggery, dates, fresh fruits etc. since time immemorial. So, the question is why did we switch to sugar? Is there any need to be so much dependent on the food which is as harmful as the poison and as addictive as a drug?

*"Sugar not only decays your tooth. It also decays your body, mind and soul" –*

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#### REFERENCES

1. Binu, S. (2020). Is Jaggery Healthier Than Sugar? Netmads. Retrieved from <https://www.netmads.com/health-library/post/is-jaggery-healthier-than-sugar>
2. Gunnars, K. (2018). Daily Intake of Sugar — How Much Sugar Should You Eat Per Day? Healthline. Retrieved from [https://www.healthline.com/nutrition/how-much-sugar-per-day#TOC\\_TITLE\\_HDR\\_4](https://www.healthline.com/nutrition/how-much-sugar-per-day#TOC_TITLE_HDR_4)
3. Scattergood, G. (2018). Switching from sucrose to fructose lowers insulin and blood glucose in the obese and diabetes. Nutrain Ingredients. Retrieved from <https://www.nutrainingredients-asia.com/Article/2017/06/09/Switching-from-sucrose-to-fructose-lowers-insulin-and-blood-glucose-in-the-obese-and-diabetics>