

A SYSTEMATIC REVIEW ON CONSUMPTION OF SOFT DRINK CAUSING HUMAN HEALTH PROBLEMS

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ABSTRACT

Carbonated beverages containing flavours are commonly known as 'Soft drinks'. The main ingredients in soft drinks are sweeteners, carbonated water and flavouring agent. It may also contain colouring agents, preservatives, caffeine and also 0.5% alcohol of the total volume of the drinks consider to be non alcoholic. soft drinks become first choice of drinks of millions of people. Soft drinks become a matter of concern for all countries either developed countries or developing countries. Soft drinks containing carbonated water, sweeteners, flavouring agents have no nutritional value, only they fill our stomach and takes place of essential and good nutrients that are important for healthy lives. Soft drinks containing large amount of

sugar may cause diabetes and acid present in soft drinks may lead to dental health issues as well as excessive soft drink's consumption causes osteoporosis, weight gain, kidney problem, hypertension, heart attack and also adverse effects on reproduction. It can be concluded that soft drinks consumption is a threat for future generations.

KEYWORDS: Soft drinks, Obesity, Diabetes, Hypertension, Health issues, Osteoporosis.

INTRODUCTION

Soft drinks are also commonly known as minerals or carbonated beverages. It mainly contains water, CO₂, sweetener, flavouring agent, acid and also colouring agent. The sweeteners in soft drinks are sugar, fruit juice or may be sugar substitute. A soft drinks may

also contains small amount of alcohol and caffeine. Non alcoholic drinks must be contain less than 0.5% alcohol of total volume of soft drink.

Now a days soft drink becomes a common component of our diet and any celebration or party incomplete without soft drinks. Such drinks are mainly popular in youth. Regular consumption of soft drinks are harmful for youth and our society. Various developed country like- Britain, US, France banned several types of injurious soft drinks that cause obesity, diabetes, dental health issues, kidney stone, heart attack and osteoporosis in soft drinks consumers.

In 1964, PepsiCo launched diet pepsi and In 1982, Coca-Cola launched diet coke both soft drinks contains zero calories and zero added sugar. In these diet soft drinks artificial sweeteners are used like- aspartame, saccharine, sucralose but these diet soft drinks not safe to human being as various studies such as "The American Journal of Clinical Nutrition", "Centre for Science in the Public Health" linked these artificial sweeteners with cancer.

INGREDIENTS

Carbon dioxide

The CO₂ gas that are used to make drinks bubbly is the same toxin we eject out through our lungs from our bodies specially CO₂ gas is beneficial for human beings.

Sweeteners

Carbonated beverages contain sweeteners like - sucrose that produce more calories than normal level of calories. All types of these sweeteners can cause type-2 diabetes, obesity etc.

Acids

Generally soft drinks contains citric-acid and phosphoric acid that may cause various dental health issues like tooth decay etc. An acids present in soft drinks called acidic soft drinks can causes acid reflux and heart burn. University of Texas Health Science Centre founds that the acids present in soda when combines with carbon di oxide it can causes belching and increases reflux into human throat.^[1]

Caffeine

Caffeine generally acts as CNS stimulants. Caffeine in soft drinks are fastly absorbed than other drinks like- coffee, chocolate. So they can disturb the normal sleep of consumers by stimulating nervous system.

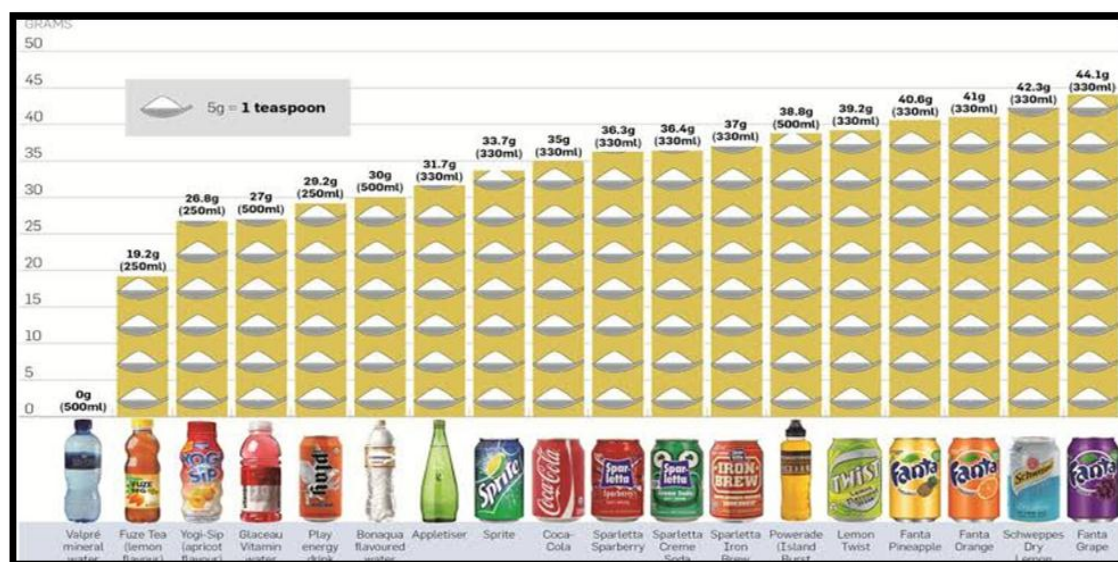


Fig. 1.1: Sugar concentration in various soft drinks.

Various health problems of soft drinks

Obesity - A regular intake of soft drinks containing sugar plays a major role in obesity epidemic. Obesity or over weight can increase the risk of developing diabetes and heart disease.

Various scientific studies provides experimental confirmation that consumption of soft drinks are related to obesity due to intake of extra calories from sweeteners that are added to the soft drinks.

Diabetes - Obesity or over weight are highly risk factors for causing various chronic disease like- diabetes, CVS and also cancer.

A study conducted on 91249 women followed for 8 years those who consumed one or more time soft drinks per day develops type-2 diabetes.

Effect on Dental health - A large number of soft drinks contains acids mainly phosphoric acid, citric acid, carbonic acid. These acids have erosive capacity. Acidity of soda makes its harmful for human teeth than any sugar in solid state like candy. When tooth enamel is directly exposed to these acids like phosphoric acid, citric acid cause tooth decay.

Effect on kidney - As soft drinks contains citric-acid, phosphoric acid and other acids. When phosphoric acid in excess amount then kidney are less able to excrete these acids. Soft drinks excessively remove calcium from our body that deposited in kidney causes kidney stone.

Effects on Liver-Various studies provides evidence that too much consumption of soft drinks, increase the risk of liver cirrhosis as many soft drinks contain alcohol.

Hypertension -Soda drinks can increased risk of hypertension by their solute load as studies have shown that large amount of solute like- sodium in the diet directly associated with hypertension. Experts confirmed or proved that excessive consumption of fructose found in soft drinks lead to increase in blood pressure.

Soft drinks causing Osteoporosis -Taking large amount of soft drinks day by day can also reduce the intake of milk that are healthy drink for our body result in lower intake of trace elements such as calcium and magnesium.

The lower intake of such elements calcium and magnesium causes osteoporosis and fracture of bones. Excessive consumption of phosphoric acid that are used as additive in carbonated beverages causes imbalance between phosphoric acid and calcium as well as acid-base balance in the body that's result in osteoporosis.

CONCLUSION

Everything has two either postive or negative aspects. Carbonated beverages or soft drinks have some benifit but a greater side effects and harmful for human beings.The excessive consumption of soft drinks causes various dangerous disease like- Cancer, Hypertension, Diabetes, Kidney stones, Obesity etcVarious countries banned some soft drinks in their country for the safety of people. So, it can be concluded that consumption of any types of soft drinks harmful for human beings and also it may be dangerous for our upcoming generation.

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