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Health Benefits of Yogurt - An Ideal Probiotic: A Review

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Abstract: ***This review explores the health benefits of yogurt, with a particular focus on its impact on overall health. The article discusses the nutritional value of different types of yogurts, their potential health benefits, and some drawbacks. The review emphasizes the role of yogurt in promoting gut health, boosting immunity, aiding in weight loss, and reducing the risk of chronic diseases. It also highlights the potential of yogurt in maintaining dental health by slowing the growth of harmful oral bacteria***

Keywords: Yogurt, Probiotics, Dental Health, Gut health, Immunity, Weight loss, Chronic Diseases

The purpose of this review is to explore the health benefits of yogurt consumption, with a particular emphasis on its impact on overall health, and to provide a comprehensive understanding of the nutritional value of different types of yogurt.

This review is significant as it provides a comprehensive understanding of the health benefits of yogurt highlighting the potential of yogurt as a functional food that can promote overall health and well - being.

This review article employs a comprehensive literature review method, examining various studies and sources to compile and present information on the health benefits of yogurt, particularly its impact on dental health.

In recent times consumption of dairy products has increased tremendously mainly milk, cheese, yogurt. Among dairy products, yogurt consumption has increased significantly. After getting to know the potential benefits of various dairy products, many dietary guidelines began to recommend inclusion of various dairy and cultured products especially yogurt in the dietary plans. Origin of yogurt dates to 5000BC in neolithic period at central Asia and Mesopotamia, while commercialized production began in 1919 Barcelona, Spain by Isaac carasso, founder of Danone. There are potential benefits of consuming yogurt, as it is a good source of probiotics. At the same time, drawbacks of yogurt are profound in those with impaired immune status. Yogurt being a rich source of probiotics can slow down the growth of harmful bacteria in your mouth that can cause cavities

Yogurt is a diary product produced by fermentation that has been enjoyed for centuries. It is made by adding live cultures of bacteria, such as Lactobacillus bulgaricus and Streptococcus thermophilus, to the heat - treated animal milk, followed by incubation to reduce the ph. with or without coagulation pretreatment.[1] These bacteria help to convert the lactose in milk into lactic acid, giving yogurt its tangy flavor and thickness. Yogurt is a good source of protein, calcium, and probiotics, which are beneficial bacteria that can help improve digestion and boost the immune system. Yogurt helps to maintain pH levels of mouth in a friendly zone, where survival of harmful bacteria is a challenge, It is low in fat and calories, thereby making it a popular choice for people who are trying to maintain a healthy diet.[2]

Curd can be prepared at home by adding either lemon or curd to milk, which yields lactic acid bacteria known as Lactobacillus. Whereas, Yogurt which is made by industrial fermentation of milk is done by introducing live cultures of bacteria

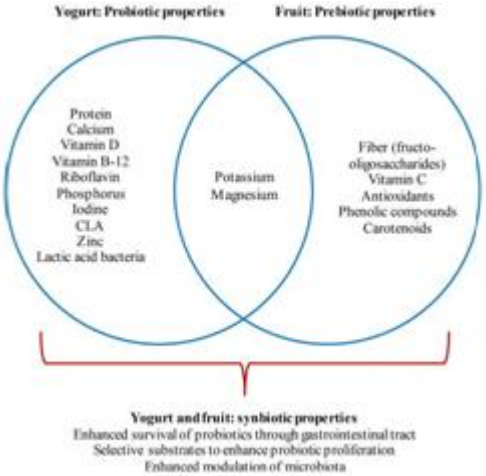
There are many different types of yogurts available, including plain, flavored, low - fat, non - fat, Greek, frozen, non - dairy, and Icelandic (skyr) yogurt. Some yogurts are also fortified with additional vitamins and minerals.[3]

Yogurt can be eaten on its own or used as an ingredient in a variety of dishes, such as smoothies, dips, and dressings. Its use as a substitute for sour cream or mayonnaise in recipes is increasing

Few common varieties of yogurt included are

1) Low fat yogurt: Usually made with 2% fat milk. It can be a source of protein for those on weight loss diet
2) Nonfat yogurt: it is made using zero percent or skim milk, which is relatively better than low fat milk. It is the lowest - fat option and is often used in weight - loss diets.
3) Kefir: Liquid form of yogurt. It is made easily at home by adding kefir grains to milk and setting it aside for 12 - 24hrs.
4) Greek yogurt: It is prepared by separating liquid whey from regular yogurt by straining using muslin cloth. It is thick and creamy yogurt, so it can withstand heat better than regular yogurt. It is generally used in Mediterranean style cooking. It delivers higher percentage of proteins than other yogurts, but has less calcium and water - soluble vitamins
5) Skyr: it is an Icelandic type of yogurt, which is dense, creamy, and high in protein like Greek yogurt. It requires 4 times the amount of milk than regular yogurt and delivers higher protein
6) Frozen yogurt: It is in general considered as a healthy alternative to ice cream which it is not, as it contains similar quantities of sugar as regular ice cream

7) Non diary yogurt: It is usually made from non - milk sources such as soy, coconut milk, etc. It isa healthy alternative to vegan consumers
8) Flavored yogurt: These forms of yogurt are made by addition of flavors and artificial sweeteners to yogurt and are hence considered to be a relatively unsafe.



Health Benefits of Yogurt:

Promotes gut health: yogurt contains live cultures of beneficial bacteria known as probiotics. These bacteria can help improve gut health by balancing the microbiome and promoting health digestion.[5]

A study by performed on 1, 000 adults by Japanese showed that healthy gums were found in those who ate yogurt the most. It also demonstrated that the good bacteria found in yogurt were responsible for slowing the growth of bacteria causing cavity

Consuming 6 ounces of yogurt each day can boost dental hygiene and immune status

Boosts immunity: Probiotics in yogurt can also help boost the immune system by stimulating the production of antibodies and improving the function of immune cells[4]

May reduce the inflammation: Some studies suggest that the probiotics and anti - inflammatory compounds found in yogurt may help reduce inflammation in the body, which is linked to many chronic diseases.

Good source of protein: Yogurt is a good source of protein, which is helpful for building and repairing tissues in the body[9]

Supports bone health: Yogurt is a good source of calcium and vitamin D, which are important nutrients for bone health. Regular consumption may help prevent osteoporosis and other bone related disorders

Aid in weight loss: Studies suggest that consuming yogurt along with fruits as part of healthy diet aids in weight loss by promoting satiety and reducing overall calorie intake[9]

Framingham heart study offspring cohort found that participants who consume yogurt regularly i. e., more than or equal to 3 times in a week demonstrated smaller annual weight gain and increase in weight circumference than those consuming once a week. A Spanish cohort study performed by seguimiento university of navarra found that intake of whole fat yogurt had lower incidence of overweight or obesity. However, the results are yet to verified by a better study.

Studies have shown that yogurt consumption has been linked to weight loss by altering the microbiome of colonic architecture.[10]

May lower risk of chronic diseases: Regular consumption of yogurt might lower the risk of chronic diseases such as type 2 diabetes, heart diseases and certain cancers

Chen et al. performed a meta - analysis study which proved that 1 serving of yogurt per day has reduced the incidence of type 2 diabetes by 18%.

Framingham offspring and third generation cohorts showed that regular consumption of yogurt lowered cardio metabolic risk including high blood pressure, elevated triglycerides and glucose and insulin resistance. And, a study showed that consuming yogurt 3 - 6 servings per day had 16% lower risk of developing high blood pressure.[7]

Yogurt regulates high blood pressure as it is a rich source of calcium and vitamin D.

Patients between stage 3 to stage 5 of chronic kidney disease who participated in a study with probiotic and prebiotic supplementation including low protein diet showed delayed progression of the disease

Hepatic steatosis and liver enzyme concentrations in patients with nonalcoholic fatty liver disease are improved by consumption of symbiotic yogurt

Regular yogurt consumption with daily brushing is a key for flossy teeth

Consumption of multispecies capsule of probiotic yogurt demonstrated beneficial effects on mental health of petrochemical workers which is proven by a randomized, double blind, placebo control trial[8]

Yogurt consumption showed to be beneficial in pregnant women by raising glutathione enzyme reductase thereby reduce oxidative stress induced damage

Yogurt intake is associated with lower incidence of tooth loss due to periodontal disease, mainly by alteration of oral microbiome composition

Few disadvantages of yogurt as mentioned below include:

Rarely live bacteria in yogurt might interfere with people of weakened immune system, thereby predisposing them to infections

Yogurt has shown to impact the bioavailability of antibiotics such as tetracyclines and ciprofloxacin. A time interval of

minimum 2 hrs. for tetracyclines and 1 hr. for ciprofloxacin has been shown to be essential for optimal drug potency.1[1]
Weight gain has been noted with the use of sweetened yogurt

Deficiency of water - soluble vitamins with consumption of Greek yogurt

Hormone disbalance due to excessive consumption of yogurt by simulating IGF - 1, which has shown to impact the testosterone level

Excess consumption might promote formation of renal stones, prostate cancer, impaired absorption of iron and zinc
Lactic acid induced rashes, itching, irritated skin
Bloating in people with lactose intolerance

The article discusses the different types of yogurts, including their nutritional value and health benefits. It explains that yogurt can promote gut health, boost immunity, reduce inflammation, aid in weight loss, and lower the risk of chronic diseases such as type 2 diabetes, heart diseases, and certain cancers. However, the article also warns that yogurt can have drawbacks for those with impaired immune status.

In conclusion, yogurt offers numerous health benefits, including promoting gut health, boosting immunity, aiding in weight loss, and reducing the risk of chronic diseases. Particularly, it can contribute to dental health by slowing the growth of harmful oral bacteria. However, it is important to choose the right type of yogurt and consume it in moderation, considering individual dietary needs and potential health conditions.

Greek yogurt is considered as a dental super food, as they are considered to slow the growth of cavity causing bacteria. They are also considered to play a vital role in maintaining gum health which are essential for preventing wide range of health issues including heart disease. High content of calcium in yogurt helps to keep teeth healthy and strong. This is the reason children are supposed to eat yogurt. Once permanent tooth appear, calcium helps to prevent tooth decay by maintaining strong enamel. Hydrogen sulfide considered the culprit for bad breath can be managed by consuming six ounces of yogurt daily, which helps to keep the smelly bacteria in check. Yogurt containing probiotics help to keep cavity causing bacteria in check by maintaining mouth's pH levels

Many studies have demonstrated the association to be significant between increased regular semi - solid yogurt consumption and periodontal health. Various longitudinal studies are required to demonstrate plausible mechanisms by which probiotics show an impact on periodontal health, considering periodontal pathogens and various clinical periodontal parameters[12]

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