

Health Importance of Fruits in Humans

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Abstract

Fruits are a gift of nature. Each fruit contains its own benefits. Fruits come in different forms and different varieties and each fruit contain unique health benefits for human. There are different types of fruits according to their development. Different Types of fruits are simple fruit, aggregate fruit, multiple fruit, berries, accessory fruit, and seedless fruit. Fruits are rich in dietary fibers, antioxidants, vitamins, minerals, folic acid, pectin, iron, calcium, flavonoids, lycopene, thiamin, magnesium, etc. These elements are important for the proper functioning of the body and play an important role in the prevention of diseases. So, people who eat more fruits or make a habit to add it in their diet have higher chances of protection from chronic diseases. Fruits are important because they are low in fat, sodium and calories but high in energy. And this energy is important for the proper functioning of body.

Keywords: Fruit Benefits; Vitamins and Minerals; Antioxidants; Fibers; Disease Preventions; Carotenoids; Natural Gift

Introduction

Fruits are a gift of nature. Each fruit has its own health benefits. Fruits are edible portion of a plant or tree which contains seeds. Fruits have variety of forms like have different taste, texture, and color. Fruits are a great source of nutrients which play an important role in human health. There are different types of fruits on the base of anthocyanin [1]. Main types of fruits are as follow. Simple fruit, Aggregate fruit, Multiple fruits, Berries, Accessory fruit, Seedless fruit

Fruits play an important role in human nutrition and control different types of diseases and play a very important role in human health. Fruits contains vitamins(C, A, E, thiamine), minerals and dietary fiber.

Which are helpful in controlling different types of diseases such as cancer, heart disease, stroke, and other chronic diseases [2]. Fruits are also rich in antioxidants and help in the detoxification process. So, fruits have a beneficial effect on human health and essential for the proper functioning of the body [3].

Fruits which are rich in dietary fibers improve the functioning of the digestive tract and reduce the chances of constipation [4]. Fruits are important part of our healthy diet as they give energy without fat calories. Fruits contain low amount of sodium which is good for the heart. Fruits are rich in potassium content and help to control the blood pressure. As fruits are rich in vitamin C and antioxidant so they are healthy for the skin, teeth, and lymphatic system [5]. Some Fruits are rich in folic acid

and important for pregnant women. Some other health benefits of fruits are as follow. It boosts energy, plays a role in heart health [6]. Fruits control diabetes and important for controlling and treatment of many types of cancer. Fruits are also important for skin care and hair. Fruits have beneficial effect for arthritis [7]. They have beneficial effect for eye health, pulmonary health. Fruits are also important for weight loss and by this balanced diet, we protect from many chronic diseases [8]. Fruits are important for anxiety. If we are in anxiety then by eating different fruits which control it, protect from anxiety. Quantity and quality of fruits also matter. A required amount gives the best result for the prevention of different disease and keeps the body healthy [9]. So, fruits play an important role in human health.

Literature

Importance of Fruits

Fruits play an important role in human nutrition and health. They are a rich source of vitamins, minerals, folic acid, dietary fibers, antioxidants, and thiamine [10]. If we estimate the requirement of vitamins percentage than its percentage is as follow. Vitamin C 91%, 48% of Vitamin A, 27% of Vitamin B, 17% of Thiamine, 15% of Niacin, 16% of Magnesium, 19% of Iron. Fruits are important for the proper functioning of the body and protect us from a different type of diseases. Fruits are important for the digestive tract functioning. Fruits provide health benefits and help in the prevention of illness. Fruits are important to reduce some types of cancers, heart diseases, stroke, skin problems, and other chronic diseases [11]. As fruits are rich in antioxidants and function is to modify metabolic activation and detoxification. So, by this, they will improve the functioning of the body. Fruits have their own set of nutrients which makes it unique and healthy for mankind. The essential nutrients which are present in fruits are needed by your body for proper functioning. They are as follow Iron, Calcium, Vitamins, Magnesium, Fibers, Proteins, Potassium, Sodium, Phytonutrients and Antioxidants. So in all ways, fruits have a positive impact on human health [12].

Fruits for Disease Control

Fruits are important for human health and play an important role in human disease control. We can use fruits for the prevention or as control measures of the disease. There are different fruits for the treatment of different diseases. Fruits are used for the control of arthritis, bone health, cancer, skin health, cardiovascular diseases, hypertension, diabetes, eye health, digestive system health, and strokes, etc [13]. We can treat them by

different components of fruits like antioxidants, vitamin C, vitamin A (carotenoids), vitamin E, flavonoids, fibers, potassium, and iron, etc. These components are present in Citrus fruits, Kiwifruit, Pineapple, Guava, Strawberry, Orange, Peach, Apple, Pomegranate, Raspberry, Banana, etc. Studies around the world also showed that consumption of fruits protect human health. Over the past few years, a number of studies show the relation between fruit intake and reduced risk of major chronic diseases has continued to grow. These studies show that several nutrients and other components in fruits are essential for controlling the disease. There is pathway by which fruit phytochemicals effect on disease-related molecular processes, signaling pathways and cellular markers. Khoo, et al. [14] and here I am discussing the two mechanisms by which dietary phytochemicals may reduce the risk of cardiovascular diseases include: Antioxidant activity i.e., fruits remove free radicals, reduce stress, reducing LDC oxidation, Control cholesterol synthesis, Regulation of blood pressure, lipid profile, Inhibition of cholesterol absorption, Reduction of platelets aggregation, Lowering serum C –reductive protein and other inflammatory markers.

Other, mechanism by which dietary phytochemicals may reduce risk cancer includes: Remove free radicals, Regulation of gene expression in cell proliferation and apoptosis, Modulation of detoxification enzymes, by this stimulate the immune system, Regulate hormone metabolism, Antibacterial and antiviral effect.

Fruits and its Disease-Controlling Power

Apple for Disease Control

It contains antioxidants which name as flavonoids that help to lower the risk of developing either diabetes or asthma. It is also good for the heart and control blood pressure. Fiber is also present in apple and it's good for heart diseases and improves the health of intestines. As it contains antioxidants and fibers so it will keep away from doctors. Other nutritional components in apple are potassium and vitamin K. There is also some vitamin B. It is also good for bone density. It also has pectin contents. Pectin is prebiotic fiber which improves gut of bacteria and by this improves digestion and metabolic health [15].

Avocado for Disease Control

It contains potassium, vitamin E and foliates. It is a unique fruit with many health benefits. We use it to treat the disease of the heart and use for wound faster recovery. It is also good for eye health as it has vitamin E. Mostly it is used for a healthy heart because it promotes heart health. Avocado is different from other fruits. Other

fruits may high in carbohydrates but it is low in carbohydrates that's why good for heart health. It contains healthy fats and the majority of fats are oleic acid, a monosaturated fat which reduces inflammation. Other healthy components are potassium, fibers, and magnesium. Good for women during pregnancy [16].

Banana for Disease Control

It is a rich source of vitamin B6, potassium and foliates. It also contains minerals and pectin. Bananas are good for improving sugar control. When someone has low blood sugar level then by eating a banana you can improve your blood sugar level. So, it is good for improving and controlling blood glucose. It is also good for improving the digestive system and the process of digestion.as are also good for improving blood pressure.

Blackberry for Disease Control

It has powerful contents of antioxidants, anthocyanin, vitamin C, vitamin K, and manganese. It helps to reduce the inflammation and aging process. It also protects against cancer and heart stroke. So, it lowers the risk of chronic diseases [17].

Blueberry for Disease Control

Blueberries are rich in antioxidants, vitamin C, vitamin K, manganese and fibers. It reduces the risk of heart disease, diabetes and Alzheimer's. Blueberries are good for the immune system. It also defends the body against stress and viral infections. It increases natural killer cells in the body and has a protective effect on your brain. By eating blueberries shown that it improves memory in older adults. So, by eating blueberries our immune system boost up and protect the body from illness [18].

Cherry for Disease Control

Cherries are a rich source of anti-oxidants; anthocyanin, carotenoids and vitamin C. Cherries reduce inflammation. It contains melatonin. Melatonin is a hormone that produces signals to our brain when it's time to sleep. So, when someone suffers from insomnia and other sleep disorders than by eating cherries we can improve sleep disorders. Cherries can also be used to treat arthritis and gout. So, cherries are also good for bone pain and muscles pain [19].

Blackgrape for Disease Control

It contains resveratrol that has the ability to lower the level of high blood pressure and lower the risk of blood clotting. Grapes are also good for bones and prevent cavities.

Cranberry for Disease Control

Cranberry is rich in antioxidants; they are antibacterial and help in treating the urinary tract infection. Cranberry also contains vitamin C, manganese, vitamin E, vitamin K1, and copper. They also contain flavonoid polyphenols, which can improve health. The main component of cranberries is A-Type proanthocyanidin which prevents bacteria from attaching to the lining of the bladder and urinary tract [20].

Grapefruit for Disease Control

Grapefruit contains lycopene and flavonoids, which are good to lower the cholesterol level. It also helps to get rid of respiratory problems. It is also used to improve vision. Grapefruit is one of the healthiest citrus fruit. It is good for reducing insulin resistance. We can use grapefruit for the prevention of kidney stone [3].

Kiwifruit for Disease Control

It is full of energy. Kiwi is good for the development of bones, teeth, and gums. Kiwi is used for sleep disorders. Kiwi is also good for boosting the immune system. So, by this, it is a healthy fruit for human health and protects from many diseases [22].

Mango for Disease Control

Excellent source of vitamin C. Mangoes contain lutein and zeaxanthin, which reduce the risk of age-related muscular degeneration. It prevents cancer and treats kidney stones.

Orange for Disease Control

Rich source of vitamin C. Oranges helps in the prevention of neural tube defect in the infants during the pregnancy phase. Oranges have anti-cancer properties and also good for healthy skin and protect the skin from skin burn because it has the ability to grow and repair tissues which are damaged by sunburn. Citric acid is present in it which reduces the risk of kidney stones.

Papaya for Disease Control

Rich source of folate, vitamin A and vitamin C. It also contains papain, an enzyme which enhances the digestion process. It protects the skin against damage.

Peach for disease control Peach boosts the immune system. It gives the strength of our nervous system. It is rich in antioxidants and detoxifies the body. It is also good for digestion.

Pineapple for Disease Control

It contains an enzyme named bromeliad that inhibits the cough and cold. It also inhibits the growth of cancer cells.

Pomegranate for Disease Control

Pomegranate contains antioxidant tanning promotes blood pressure and lower the risk of heart disease. Pomegranate is used for anemia patients [23].

Strawberry for Disease Control

Strawberry is rich in antioxidants and prevents atherosclerosis and suppresses the growth of cancerous tumors. Strawberry contains vitamin C, manganese, folate, and potassium. Strawberries help in to control blood glucose level and reduce other risk of diseases [24].

Watermelon for Disease Control

Watermelon contains 92% of water and it is a perfect option for weight loss diet and as it is full of water contents. So, it is good for our skin. Watermelon consists of vitamin A, vitamin C, and other antioxidants. It hydrates our body. It regulates blood pressure and promotes healthy weight loss. Other important components include lycopene; carotenoids and cucurbitacin E. Lycopene intake reduced the risk of cancers and inhibit tumor growth. Lycopene-rich fruits also promote heart health because it's the ability to reduce cholesterol and blood pressure. As watermelon contains 92% water so, it is very hydrating fruit.

Fruits and Their Health Benefits

There is a long list of fruits with beneficial effects but here we are explaining a few one fruits with their beneficial impacts on human health. Fruits are a natural gift for human in the health part of the view [25].

Apple Health Benefits

Apple is very nutritive as if we eat one apple daily then it prevents us or takes away from the doctor. Apple contains iron. Apple is good for the digestive system as it boosts up the digestive system. It has the ability to control diabetes. It is good for the heart and improves cognitive functioning [26].

Banana Health Benefits

Banana is led to many vitamins and minerals. The observed main benefits of banana are it stabilizes blood sugar level. It fights against cancer, great of the eye and reduces bad cholesterol level. Banana has many other

health benefits which are as follow: Banana contains tryptophan which is then converted into serotonin and it is a happy mood brain neurotransmitter. So, it overcomes depression. By eating banana it protects against muscle cramps during workouts and in night time leg cramps. High in potassium, low in salt and officially recognized by the FDA as being able to put the blood pressure in the normal range and protect against heart attack and strokes. As bananas are rich in pectin so, it helps in digestion and removes toxins and heavy metals from the body. So, bananas are as prebiotic [27]. Bananas make you smarter and make you alter. Eat a banana before the exam and get benefit from the high level of potassium. It helps in removing the wart by placing a piece of banana peel against the wart and taping it in place [28].

Cherries Health Benefits

Cherries contain B6, vitamin C, vitamin A, calcium, iron and much more. Cherries contain antioxidants, including carotenoids and anthocyanin which help to prevent many diseases. Cherries are helpful for the treatment of sleeping disorders. Cherries reduce muscle pain. Cherry has a unique capability to help our body to generate new cells. As the skin is full of cells and when your body continuously generate new cells then in result you will have beautiful skin. So, cherries have an anti-aging effect [29]. Cherries are fully loaded with quercetin and help to prevent alopecia Aerate condition. We just need to eat cherries and include in our diet. So, by this, it will increase hair volume. We can treat our split and with the help of cherries. Cherries help to prevent cancer and especially colon cancer. The American Institute for cancer describes that cherries have dietary fiber, phytochemicals, and other nutrients that fight against cancer. Cherries intake lower risk of gout attacks. Other chemical bioactive compounds found in cherries which are proven to fight and stabilize diabetes. Cherries are also an anti-inflammatory agent and give relief from joint pain. Cherries are a healthy diet against cardiovascular diseases, put blood pressure down and cure gallbladder disease. Cherries are good for memory and increase your memory and cognition performance. Cherries other benefits are it is good for eye health, took the stress away as it contains quercetin compound which is good for eye health. Cherries do help your body to work against cold, cough, etc. Cherries support good blood supply during pregnancy [30].

Citrus Health Benefits

Citrus has numerous health benefits which are as follow. Citrus is full of water and fiber so, it is a natural weight loss booster. It is rich in fibers and takes longer

time to be digested and it means your stomach will be full consuming whole fruit and in result controlling your hunger. Besides that, it contains vitamin C which the main function in storing fats away from the system. It reduces the risk of strokes. As citrus fruits are a source of antioxidants and rich of vitamin C so, it prevents the development of cancerous cells. It also protects the skin from the damage of free radicals [31]. Citrus contains high carotid which combines with vitamin C produce vitamin A that prevents muscular degeneration which is blindness so, citrus is good for eyesight. It increases the absorption of iron. It maintains the blood sugar level and helps in lowering cholesterol level. Citrus is rich in soluble fibers. Fiber is a substance which can't be broken down. Its main function in the intestine is to bring all unnecessary substance to be washed from the digestive system. After that, it produces bile that your body requires. Citrus produce collagen for tissue repair, for treating anemia patients we can use citrus as it is optimizing the absorption of iron. So, you are taking iron supplement then took a glass of citrus juice is highly effective and may be recommended. Citrus is also good for healthier and younger skin. As it contains vitamin C which plays an important role in the formation of collagen and collagen has ability to repair the damaged tissues. Another component is antioxidant which makes your skin wrinkled free. All citrus varieties are full of antioxidants and good for your body. Citrus may contain foliate and it is good for pregnant women. It is an immunity booster, help to get rid of viral infection and help to prevent the formulation of kidney stone [32].

Grapes Health Benefits

Grapes regulate blood pressure, reduce constipation and strength your bones. Grapes have bioactive compounds that show health benefits in human [33]. (Kedage, Tilak, Dixit, Devasagayam, & Mhatre, 2007) Grapes lower the risk of cardiovascular diseases by preventing lipid oxidation; modulate levels of lipids and lipoproteins in the body [34].

Kiwifruit Health Benefits

Kiwi helps in digestive process, fight sleep disorders, boosts your immunity, protection from DNA damage and good for your eyes. Kiwi fruit is high in vitamin C, dietary fibers, potassium, vitamin E, foliate and various bioactive components include a wide range of antioxidants, phytonutrients, and enzymes that provides functional and metabolic benefits [35]. Kiwi contains actinide a natural proteolysis enzyme which is unique in kiwifruit which breaks protein and facilitates gastric and ideal digestion. Gold kiwifruit is good for the treatment of upper

respiratory infection. This is treated with four kiwifruits per day for four weeks [22].

Mango Health Benefits

Mango is an excellent source of vitamin C. It also contains fibers. Mango prevents us from cancer and fights against heart stroke. Mangoes are good for pregnant mother. Mangoes can be used to treat kidney stones. Mango is a tropical fruit with different nutritional and phytochemical composition. It also contains essential water and lipid soluble micronutrients. Mangoes reduce the risk of inflammation-associated diseases. Mango is good for diabetes and cardiovascular diseases. It gives glowing look to the skin so, good for skin, brain, and intestinal health [36].

Pomegranate Health Benefits

Pomegranate health benefits are it treats anemia, stomach disorders, prevents arthritis, improves memory and strength your immune system. Pomegranate prevents or treats various diseased factors including high blood pressure, high cholesterol, and inflammatory activities [23]. Pomegranate has component such as polyphenols which have potential antioxidants, anti-inflammatory, and anti-carcinogenic effect. Pomegranate fruit can be used to treat human prostate cancer because it has the ability to inhibit the growth of the cells and induce apoptosis. We can use it to treat lungs cancer [37].

Grapefruits Health Benefits

It is rich in antioxidants, vitamin C and good for human health to improve your vision, respiratory problems, lowers cholesterol level, eliminates gum problem and cures arthritis. Grapefruits are rich in antioxidants so, they have the potential to treat cardiovascular diseases and prevent cancer [38].

Watermelon Health Benefits

Watermelon is rich in vitamin A, C, and other antioxidants. It contains 92% water so it hydrated the body, regulates the blood pressure level and prevents the muscular degeneration. It hydrates the body so it is good for the skin and good for liver health [39].

Pineapple Health Benefits

If someone has a deficiency of vitamins and manganese then he needs to eat pineapple. Pineapple has an enzyme named as bromeliad which is effective for cold and cough. Pineapple protects your heart, improves bones

health, lowers the risk of cancer and gives reliance on asthma [40].

Guava Health Benefits

Guava has many medicinal benefits. It cleans your body, improves thyroid health, eliminates stomach problems, treats cough and cold and also treats scurvy. It is best for the digestive system as it eliminates many stomach problems.

Peach Health Benefits

Health benefits of peach are, it strengthens nervous system, detoxifies body, improves cellular health and treats blood stasis. It contains antioxidants. So, it is best for the skin.

Conclusion

Fruits are very healthy and important for proper functioning of body and help in the prevention of many diseases but every fruit required in proper amount and will work as medicine and if someone exceeds its amount then it will be harmful as different types of vitamins, minerals and other components of fruits will start to accumulate in your body and it will prove harmful.

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