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Empowering health advantages including fruits in the diet table: A review

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Abstract

Fruit is an essential part of a healthy diet. Actually, a high diet of fruit is associated with all kinds of health benefits, as well as a reduced the chance of many diseases. Because, variety of fruits contains varied amounts of nutrients *i.e.* dietary fibers, antioxidants, vitamins, minerals, etc. So, it is important to eat various types of fruits to capitalize the health benefits. Apples and pineapples are examples of high dietary fiber fruits. This can help lower the cholesterol and encourage regular bowel movements. Oranges and strawberries, it contains lots of vitamin C which helps to stay healthy teeth and gums and also supports the immune system. Higher amount of potassium is found in banana and mango fruits. It can help to maintain blood pressure and regulates fluid balance in the human body. It has lot of beneficial effects on health of human being and also prevention of different diseases.

Keywords: Fruit, health, vitamins, disease, immune system etc.

Introduction

Fruits are an essential part of our healthy diet of daily life. It does not only add colour, flavour and variety to our foods, but they also supplies powerful nutrients to us. A wide range of fruits are rich source of bio-active ingredients like phytochemicals, vitamins, minerals, and fibers (Samtiya *et al.*, 2021) ^[24]. Fruit considered essential element of the human diet since ancient times. In addition, in some regions like desert areas, date fruits has been a essential element of the daily diet, while the community depend on eating dates as the main constituent of their daily diet (Vayalil, 2012) ^[32]. Moreover, fruits are using within religious rituals in different areas of the world. In addition, fruits are also used for medical reasons as a part of traditional medicine in different antique civilizations. It is well known that, regular consumption of fruits, vegetables and nuts would lessen the risk of cardiovascular disease. Moreover, there are abundant benefits of consumption in delaying and reducing different health difficulties (Hu *et al.*, 2013) ^[16]. As a part of healthy food regular consumption of fruit is considered a proper tactic for controlling different dislike diabetes and other chronic diseases (Lockyer *et al.*, 2016) ^[21]. This review shows regular consumption of fruits can positively influence nutrition status as well human productivity. So, the giving space fruit crops in daily diet, for agricultural diversification can be element of the solution to providing food and nutritional security.

Health advantages of some important fruits

Fruits provide numerous nutrients and health benefits to the human body. They are a wealthy source of vitamins, minerals, dietary fibers, folic acid and antioxidants etc.(Van

Duyn and Pivonka, 2000) ^[31]. Nutritional and health advantages of some important fruits are as follows:

1. Through apple fruits

Apple is very nutritive and is very good to boost up the digestive system (Bondonno *et al.*, 2018) ^[5]. It contains many antioxidants *i.e.* flavonoids that helps to lessen the risk of developing whichever diabetes or asthma. Apple fruit is good for the heart because due to presence of fiber. It is also improves the of intestines health. Potassium, vitamin K and vitamin B are other nutritional components available in apple fruit which is good to control blood pressure and bone solidity. Pectin content is also found in the apple fruit and it is pre-biotic fiber which improves gut of bacteria and as a result of this improves digestion and metabolic health (Ferrari *et al.*, 2016) ^[12].

2. By banana fruits

Banana fruit is rich source of many vitamins and minerals. The observed that it stabilizes blood sugar level. It improves eyesight, lowers bad cholesterol level and fights against cancer. Tryptophan is happy mood brain neurotransmitter which is then converted into serotonin and it is found in banana fruits. Subsequently, it conquers depression. Due to high in potassium content and low in salt, it's able to keep the blood pressure normal and protects opposition to heart attack and strokes. Due to rich in pectin, banana fruit helps to digestion and removes toxin substances from the body (Slavin, 2013) ^[28]. It is also rich source of vitamin B₆, folates and potassium. They are very good for improving and controlling blood glucose.

3. Through citrus fruits

Citrus fruits comprise sweet oranges, sour oranges, mandarins, limes, lemons, grapefruit, pomelo, citrons, etc, belonging to the rutaceae family. Citrus has numerous health benefits due to presence of full of water and fiber. It is very good to lose body weight. Citrus fruits are rich source of vitamin C and antioxidants; it avoids the development of cancerous cells. Citrus fruits also shelter the skin from the free radicals damage (Chhikara *et al.*, 2018) ^[8]. The presence of vitamins and flavonoids enhance their health properties. Hesperidin is one of the major flavonoids found in citrus fruits have the possibility of preventing SARS-CoV-2, severe acute respiratory syndrome (Bellavite *et al.*, 2020) ^[3]. Citrus fruits have rich in soluble fibers which improves digestive system. Citrus fruit is rich in vitamin C content, which plays a significant job in the formation of collagen and it has ability to repair the damage tissues. So, it is good for healthier and younger skin. Citrus fruits are full of antioxidants. It works as immunity booster, helps to do away viral infection and checks the initiation of kidney stone (Lv *et al.*, 2015) ^[22].

4. Through mango fruits

Mango fruits are rich in different nutrients for instance vitamins, carbohydrates, fatty acids and minerals with non-nutrient compounds including carotenoids, dietary fiber, organic acids, poly phenols and other pigments. The quantity of above components can be change according to the practices of pre-harvest and post-harvest factors (Yahia *et al.*, 2011) ^[35]. Mango fruit have some of the main bio-active compounds includes phenolic acids (ferulic acid, coumaric acid and hydroxyl benzoic acid), polyphenols (mangiferin, tannins, anthocyanins, quercetin), carotenoids, and the vitamins ascorbic acid, thiamine, riboflavin, and niacin in abundant form (Yahia *et al.*, 2011) ^[35]. These elements have been reported to reveals antioxidant activity (Yang and Xiao, 2013) ^[36]. Contributes in cancer prevention (Boateng *et al.*, 2007; Corrales-Bernal *et al.*, 2014a; Ge *et al.*, 2013) ^[104, 09, 13]. Mango fruit is good for reduce the threat of diabetes and cardiovascular diseases. It improves skin, brain and intestinal health (Burton Freeman *et al.*, 2017) ^[6].

5. By papaya fruits

It is one of the best sources of antioxidants such as β -carotene, vitamin C and quite rich in minerals that prevent or even repeal serious diseases like stomach ulcers, diabetes, heart disease, cancer and helps in minimizing the cholesterol levels (Sies and Stahl, 2005) ^[26]. Papaya includes some distinctive protein digestive enzymes including papain and chymopapain. These enzymes help lowering the inflammation by improve heal burns. It is also a fine source of vitamin K and it play vital role for good health. Due to rich source of vitamin C Papaya may be a healthy fruit choice for peoples and pro-vitamin A (beta-carotene) availability prevents such illnesses i.e. ear infections, colds and flu. It is also been found to be useful in the colon cancer prevention (Rahmat *et al.*, 2002) ^[23].

6. By pineapple fruits

Pineapple contains bromelain enzyme which inhibits the cough and cold. Pineapple shelters heart, improves bones health, reduces the risk of cancer and gives relief on asthma

(Wang *et al.*, 2015) ^[34]. Protein-digesting enzyme bromelain, good amounts of citric and malic acids, founds in pineapple fruits and vitamins, which gives it flavor (Joy, 2010; Hemalatha and Anbuselvi, 2013) ^[18, 14]. Pineapple fruit is rich in essential nutrients i.e. potassium, calcium, vitamin C, fiber, copper, folate and other crucial elements. Due to above substances, pineapple makes an excellent contender for balanced dietary weight-reduction plan. Other most favorable aspect is that it contains a less amount of fat and sodium but contains high carbohydrate quantities (Kumar *et al.*, 2017) ^[20]. Malic acid helps to boost immune system and smoothes the skin. Additionally, it helps to maintain mouth health. Hence, helpful in preventing dental problems. Manganese helps strengthen gums and keeping strong teeth (Debnath *et al.*, 2012) ^[10].

7. Through pomegranate fruits

Pomegranate is high in antioxidant and polyphenol-rich fruit as compared to other fruit such as grapes, cranberries or even other species (Fahmy *et al.*, 2020) ^[11]. In addition, pomegranate juice has many health advantages such as anti-atherogenic, anti-oxidant, anti-hypertensive, and anti-inflammatory effects. Day by day use of juice of pomegranate maintain heart-health. Antioxidant components have three-fold than that in green tea or red wine, due to higher ability to scavenging free radical (Stockton, 2019) ^[29]. Pomegranate fruit also treats stomach disorders, anemia, improves memory, prevents arthritis and strengths immune system. Pomegranate averts various disease factors together with high cholesterol, high blood pressure and inflammatory effect (Stowe, 2011) ^[30]. Pomegranate fruit can also be used in treatment of prostate cancer of human being because, it has ability to restrain the cell growth and induce apoptosis. It can be used for healing lungs cancer (Zarfeshany *et al.*, 2014) ^[38].

8. Through dried fruits and nuts

They are source of energy, contains different antioxidants and vitamins and it is also a source of different minerals i.e. Fe, Mg, K, Mn etc. The bio-active contents of dried fruits and nuts play an important role in avoiding cardio-metabolic and non-communicable diseases by different mechanisms (Alasalval *et al.*; 2020) ^[1]. They are an important part of the day by day diet in worldwide different regions predominantly in arid and semi-arid regions for several people since ancient (Shumsky *et al.*; 2014) ^[25]. Due to their higher nutritional value, dried fruits and nuts are considered important foods and provide healthy bioactive substances to human body. Different kind of dried fruits like goji fruits (*Lycium barbarum*), raisins (*Vitis vinifera*) and cranberries (*Vaccinium macrocarpon* and *oxycoccus*) are energy source, higher amounts of antioxidants and minerals (Jeszka Skowron *et al.*; 2017) ^[17]. At present, due to health advantages and their preferred flavor, there is more attention to the consumption of fruits and nuts as an element of the day after day diet (Chang *et al.*; 2016) ^[7].

Conclusion

Fruits are very important source of phyto-chemicals, dietary fiber, carbohydrates, vitamins, protein, flavonoids, carotenoids and other nutrients. Daily consumption of fruits and fruit juices provide important nutrients to maintain body

health. Consequently, different types of fruits such as apple, banana, papaya, citrus fruits, pomegranate, nuts, dried fruits and cranberries that must be an integral part of the staple diet. They are preventing different diseases and have beneficial effects on human health also. Fruit is significant part of a healthy diet and variety is important as well as quantity. Every day eat plenty fruits, because no single fruit provides all the essential nutrients.

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