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A Review on Superfood: Nutrients Rich Foods-Superfoods

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Abstract: ***Superfoods are foods rich in nutrients. They are high in nutrients and low in calories. Antioxidants, found in superfoods, are thought to help prevent cancer. They also include phytochemicals, which are the compounds in plants that give them their vibrant colours and scents and may offer a variety of health benefits. Blueberries, pomegranates, tomatoes, flaxseeds, tea, and other foods are superfoods. Superfoods are everywhere. There are over 100 superfoods known.***
Keywords: Super-foods, Blueberries, Flaxseeds, Pomegranate, Tomatoes, Tea

I. INTRODUCTION

In today's fast-paced society, achieving good health that may contribute to longevity seems to be a chore that is repeatedly put off [1]. People rely on easy-to-eat items, i.e. fast foods, which are available practically everywhere [2]. Several recent scientific investigations show the usefulness of non-class processed foods with the proper organic process composition for strengthening and enhancing form function [3] They are "superfoods." Superfoods are foods with high nutritional and biological value [4].
All of these benefits come from the antioxidants and flavonoids found in superfoods [5]. Superfoods are rich in polyunsaturated fatty acids (-3, -6), vitamins, minerals, probiotic microorganisms, antioxidants, essential amino acids, polysaccharides, and enzymes. Hemoglobin is a protein found in red blood cells that is rich in antioxidants like vitamins A, C, and E.[6]

II. COMMON SUPERFOODS

Here are some popular superfoods, their nutritional value, and health benefits.
Superfoods like Berries, Flaxseed, Pomegranate, Tomato, Green-tea

A. Berries (Vaccinium Myrtillus)

A 65-95 cm tall shrub with dense branching and translucent foliage. bears blueberries (Vaccinium Myrtillus). They can be eaten fresh or dried. Anthocyanins are responsible for the dark blue-purple colour, phytochemicals with strong antioxidant properties. Blueberries are now considered superfoods after numerous studies. There is evidence that the presence of luteolin in the development of ovarian cancer may help prevent other cancers, such as colon cancer. [7]

1) Nutrients

100g raw blueberries provide 84 calories, 1 protein, 21 carbs, and 0.5 fat. Blueberries are high in vitamin C, K, and manganese. The USDA provides the following nutritional data. [8]
• 84 calories • 0.5 gramme of fat • 1.5 milligrams of sodium • 21 grammes of carbohydrates • 3.6 grammes of fiber • 15 grammes of sugars • 1 gramme of protein

2) Health Benefits

Blueberries contain polyphenols, which are a health superfood. The micronutrients in blueberries have been found to have many health benefits.

- *Memory Booster:* This fruit has memory-boosting properties. A small study found regular blueberry juice drinkers had better memory.
- *Heart Attack Reduce:* Women's heart attack risk was reduced by 32% when three or more servings of berries like blueberries were consumed each week. Vitamin C, potassium, and fibre are all found in blueberries. A satiety-inducing carbohydrate known as fibre is an indigestible carbohydrate. Regulates bowel movements, lowers blood cholesterol, and lowers blood sugar.
- *Lower Cancer Risk:* Eating foods high in anthocyanins may help lower cancer risk. Anthocyanins are flavonoids found in colorful fruits and vegetables like blueberries.

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B. Flaxseeds

Flaxseed is a nutrient-dense plant-based food that contains beneficial fats, antioxidants, and fibre. In ancient Egypt and China, flax was cultivated as a crop. For thousands of years, it has been widely used in Asia as Ayurvedic medicine.

1) Substances Nutritive

The USDA provides the following nutritional information for 1 tbsp (10g) ground flaxseed.[9]

• 55 Caloric intake; • 4.3g Fat intake; • 3.1mg Sodium intake• 3g Carbohydrate intake • 2.8g Fiber intakes • 0.2g Sugars • 1.9g Protein

2) Health Advantages

Prevents coronary heart disease, atherosclerosis, rheumatoid arthritis, and asthma. Daily consumption for more than 12 weeks was found to be effective in reducing rheumatoid arthritis inflammation. Its oil inhibits tumour growth in the later stages of carcinogenesis.

- *Promotes Heart Health:* Research indicates that flaxseed may at least two ways: it lowers blood pressure and improves cardiovascular health may slow the progression of atherosclerosis (at least in animals).
- *Reduces the Risk of Breast Cancer and Death:* Research in both animals and humans suggests that eating flaxseed may reduce the risk of developing breast cancer and dying from it.
- *May Aid in Blood Sugar Control:* Including flaxseed in your diet may help you manage prediabetes or type 2 diabetes.

C. Pomegranate

Punica granatum L., the plant that produces pomegranates, yields its fruit.a 2-4 m tall deciduous shrub or 5–7 m tall small tree. It thrives in light, cool soils and blooms in spring.Most pomegranate fruit contains Bark accounts for 24 percent of the total, spores for 14 percent, and juice accounts for 62 percent.The pomegranate is a widely consumed edible fruit., and scientists consider it a superfood.

1) Nutrients

Pomegranate juice is high in fibre, which helps to reduce cholesterol and relieve constipation.[10]

Serving Size:

- Calories: 64 per half pomegranate • 1 g protein • 1 gramme fat • 14 g carbs • 3 g fibre • 11 g sugar

2) Affects On Health

Pomegranates have more antioxidants than both green tea and red wine. Antioxidants protect cells from damage and help to prevent diseases such as cancer., and slow down ageing process. Pomegranates also have the following health benefits:

- *Cardiology:* Pomegranates may protect the heart by lowering blood pressure and sugar levels, according to research. Atherosclerosis causes many heart attacks. Pomegranate juice may help lower harmful cholesterol. Raising HDL (the “good” cholesterol) can reduce the risk of stroke or heart attack.
- *Diabetes Care:* In preliminary research, diabetics who started drinking pomegranate juice had less insulin resistance. Pomegranates can also help non-diabetics lose weight.
- *Cancer Prevention:* Pomegranates are high in antioxidants and flavonoids, which protect cells from free radical damage. Some research suggests pomegranates may help prevent prostate, breast, lung, and colon cancer.

D. Tomatoes

Lycopene is an important nutrient that makes the tomato a superfood. Lycopene is an antioxidant that has been shown to fight chronic disease. The liver, adrenal glands, prostate, brain, and skin all contain lycopene.Tomatoes are high in Vitamin C. Vitamin C promotes healthy bones, skin, and gums! Vitamin A rich tomatoes Vitamin A helps the macula, which is responsible for fine detail vision.

1) Diet

Two 2-1/2" tomatoes (91g) provide just 16 calories, 0.8 grammes of proteins, and 3.5 grammes of carbohydrates, and 0.2 grammes of fat per serving. Vitamin C, fibre, and vitamin k are all abundant in tomatoes. The USDA provides the following nutritional data. [11]

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• Sodium: 5mg • 0.2 grammes of fat, 3.5 grammes of carbohydrates, 1.1 grammes of fibre, 2.4 grammes of sugars, and 0.8 grammes of protein make up each serving.

2) Health perks

Tomatoes' phytonutrient content makes them a healthy food choice.[12]

- *Lowers Prostate Cancer Risk:* Lycopene, an antioxidant in tomatoes, is linked to a lower risk of prostate cancer.Lycopene inhibits the growth and spread of cancer cells by inhibiting biochemical pathways.
- *Helps Vision:* Tomatoes are high in vitamin A, specifically tutein and zeaxanthin. These two vitamin A forms protect the retina from age-related macular degeneration. Tomatoes in dishes with fat (like a salad with olive oil) help absorb fat-soluble vitamins, which are important for good vision.
- *May Lower Diabetes Risk:* Tomatoes are good for diabetics. Diabetes-induced oxidative stress can be reduced by eating tomatoes. All of these conditions are common complications of the disease.

E. Green Tea (Camellia Sinensis)

Green tea is made from leaves and buds of the Camellia sinensis plant that have not been oxidised or aged. Preparation of black teas and oolongs. [23] This type of tea, which originated in China, has since spread across Asia.[13]

1) Nutrients

Nutrients per cup of tea brewed with tap water:

• 2 kcal • 0g fat • 0mg cholesterol • 7mg Sodium • Total carbs: 1g • 0g sugar • 0 g protein

2) Benefits To Health

Despite the fact that tea is not a panacea, it can be easily incorporated into a nutritious eating plan. Here are some of the most important benefits of drinking tea. [25,26]

- *Reduction in the Risk of Hyperglycemia:* Theaflavins and thearubigins, which are found in black tea, were found to help lower blood sugar levels in the same study.
- *Cancer Reduction:* Both green and black tea have high polyphenol concentrations, which are small nutrients found in plant foods and may help reduce the risk of cancer. Researchers have found that the polyphenols in these kinds of tea may help prevent cancer by encouraging healthy growth and survival of cancer cells.
- *Reducing the Risk of Depression through Better Sleep:* After a long day, many people turn to chamomile tea to help them wind down and get ready for bed. Chamomile tea, on the other hand, has been found to help postpartum women sleep.

III. TABLE RELATED TO SUPERFOOD

S.no	Superfoods	Nutritional compounds	Health benefits
1	Blueberry	Dietary fibre, tryptophan, threonine, and leucine, as well as anthocyanins and polyphenols are all beneficial.	Improves memory, lowers the risk of heart attack, and lowers the risk of cancer.
2	Flaxseeds	Garlic acid, magnesium, gamma-tocopherol, alpha-linolenic acid, lignans, phenolic compounds, flavonoids,	Improves heart health, protects against cancer-causing cells of various types, and improves blood sugar control.
3	Pomegranate's	Antioxidant-dense, vitamin C-dense, anthocyanins-dense, ellagic acid-dense, punicic acid-dense, gallic acid-dense,complex polysaccharides-dense	Reducing blood sugar levels, lowering the risk of heart attack, controlling diabetes, boosting immunity, and lowering the risk of breast cancer are all possible benefits.

4	Tomatoes	Lycopene, linoleic acid, beta-carotene, stigmasterol, quercetin, kaempferol, valine, and threonine are some of the nutrients found in tomatoes.	Reduces the risk of prostate cancer, improves vision, and lowers the risk of diabetes.
5	Green tea	Polyphenols, catechins, polyphenols, potassium, fluorine, magnesium, and zinc are all found in flavonoids, catechins, and polyphenols.	Reduces the risk of cancer, improves the quality of sleep, and lessens the likelihood of depression and hyperglycemia.

IV. CONCLUSION

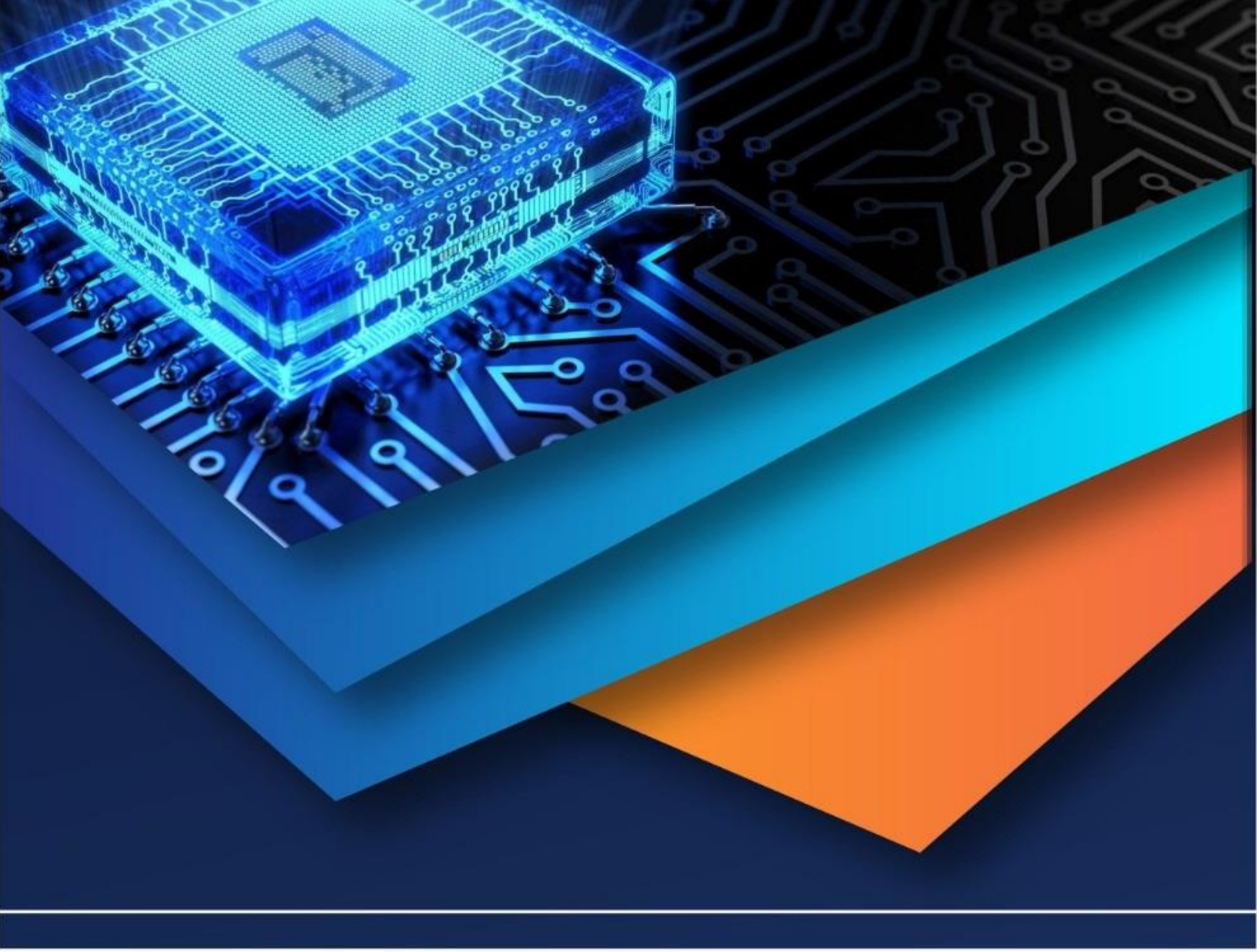
Superfoods contain a variety of beneficial ingredients that are used by humans to improve overall health and treat specific diseases. Some of the most important superfoods, including blueberries, pomegranate, tomatoes, tea, and flaxseeds, have become especially important for human health. The marketing value is also very high, as people are encouraged to stay healthy by consuming superfoods instead of taking medications.

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