

IN- DISCUSSION OF THE NUTRITIONAL COMPONENTS AND PROPERTIES OF WATERMELON SEEDS

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ABSTRACT

The seeds of watermelon (*Citrullus lanatus*) are frequently thrown as the fruit is consumed. The seeds of three (3) types of watermelon (Charleston grey, Crimson sweet, and Black diamond) were tested for proximate, minerals, phytochemicals, total phenols content, and antioxidant activity in this study. Standard techniques were used for proximate analysis and phytochemical screening, whereas atomic absorption spectrophotometry was used to assess mineral content. The antioxidant activity and total phenol content were determined using the DPPH free radical scavenging activity and Folin-ciocalteau tests, respectively. The watermelon seeds had a moisture content of 7.40 - 8.50%, a fat content of 26.50 - 27.83%, a protein content of 16.33 - 17.75%, a fibre content of 39.09 - 43.28%, an ash content of 2.00 - 3.00%, a carbohydrate content of 9.55 - 15.32%, and an energy value of 354.05 - 369.11kcal/100g. The seeds also have significant mineral content (Ca, P, Mg, Na, K, and Zn), with K (3.40-3.5 mg/100g) being the greatest and Na (0.07 - 0.08 mg/100g) being the lowest. DPPH% inhibition ranged from 59.88 to 94.46% with trolox equivalents ranging from 82.59 to 130.29 M/g depending on the type. All samples contained saponins, tannins, triterpenoids, glycosides, and alkaloids. The total phenol content of crimson sweet seeds was the greatest (5416 mg GAE/100g), followed by Black diamond (3949 mg GAE/100g) and Charleston grey (1494 mg GAE/100g). Similarly, Crimson sweet exhibited the highest antioxidant activity, followed by Black diamond, and Charleston grey, in that order. The current findings point to watermelon seeds as a significant source of nutrients in the diet, as well as potential health and economic advantages due to their fibre, minerals, phenolic content, and antioxidant activity.

KEYWORDS: vitamins B, minerals ,fat , phytochemicals, watermelon seeds.

INTRODUCTION

You probably have an image of a red, squashy, juicy fruit when you think of watermelon, but the seeds are probably not what you expect. These dark seeds are often removed from the apple and eaten. But did you realise that these dark seeds have special nutritional qualities? The small seeds are extremely wholesome and nutritious.

Because it is filled with nutrients and vitamins and contains 92% water, watermelon is a fantastic fruit for hydrating the body. Its seeds are incredibly nutrient-dense. These seeds are low in calories and high in micronutrients including potassium, magnesium, and zinc. Watermelon seeds play a significant role in the Diabetes Food Chart since they improve blood sugar management, immunity, and heart health.

The herbaceous creeping plant known as watermelon (*Citrullus lanatus*), a fruit crop, is a member of the cucurbitaceae family. It is mostly spread by seeds and does best in warm climates. It is a tropical plant, therefore for it to flourish at its best, there must be enough of sunlight and a temperature of at least 25 °C. The optimal soil for growing watermelon is rich, well-drained, and somewhat acidic. It is possible to cultivate it in Ghana's coastal regions, in the forest, and particularly along riverbeds in the Northern Savannah regions. Numerous watermelon types' quality is heavily influenced by their sweetness and sugar content. It is well recognised to be minimal in calories while being very nourishing and hydrating. Fresh salads, desserts, snacks, and decorations may all be made from watermelon. The juice can also be used to make beverages. The juice is fermented in Namibia to create a cool, faintly alcoholic beverage [2]. The rind is cut into slices, dried, boiled, and consumed in various regions of Africa. In various regions of the USA, pickled watermelon rind is a common snack. Lycopene and carotenoids are reported to be present in large amounts in the fruit. It assists in squelching the free radicals that fuel diseases including arthritis, colon cancer, asthma, atherosclerosis, and diabetes.

A well-known source of protein, vitamins B, minerals (including magnesium, potassium, phosphorus, salt, iron, zinc, manganese, and copper), fat, and phytochemicals, watermelon seeds are also considered to be very nutrient-dense. It is well recognised that watermelon seeds have positive economic effects, particularly in nations where agriculture is expanding. For example, the seeds may be used to make sauces, flour, and snack foods. The seeds' oil is utilised in cosmetics manufacturing as well as for cooking. Despite the many possible uses, watermelon seeds are frequently thrown away as the fruit is consumed. The impact of diversity on the nutritive, phytochemical, and antioxidant qualities of watermelon seeds has likewise received little attention in the literature. The proximate and antioxidant activity in the seeds of three different watermelon types was assessed in this study. Additionally, the seeds were examined for their mineral and phytochemical composition.

Nutritional Value of Watermelon Seeds

1: Low calorie

The calories in watermelon seeds are minimal. Approximately 4 grammes of seeds only have 23 calories in them.

2: Magnesium

Magnesium is a nutrient that is necessary for metabolic function. Watermelon seeds are abundant in magnesium and hence support a healthy metabolism. The National Institutes of Health (NIH) estimate that human bodies require 420 grammes of magnesium each day.

3: Zinc

A good source of zinc is found in watermelon seeds. It supports cell growth, digestion, immunity, and maintains the health of your nervous system.

4: Iron

Excellent sources of iron include watermelon seeds. The National Institute of Health (NIH) states that 18 mg of iron is needed daily.

5: Good fats

Both monounsaturated and polyunsaturated fatty acids, which are regarded as healthy fats, may be found in good fats. It decreases cholesterol and is helpful in preventing heart attacks and strokes. A serving of four grammes of watermelon seeds contains 1.1 grammes of polyunsaturated fat and 0.3 grammes of monounsaturated fat.

Health Benefits of Watermelon Seed

Given that watermelon seeds are packed with nutrients including proteins, vital fatty acids, magnesium, and zinc, they can support our bodies in surprising ways. Here are some of the significant advantages:

1: Improves skin health

The watermelon seeds that have been sprouted, which are rich in vitamin C and other antioxidants, assist to cleanse your skin. Its oil is frequently utilised in a variety of cosmetic items to cure acne and the beginnings of ageing. Magnesium, which is abundant in watermelon seeds and helps to enhance the look of your skin overall. It is useful for disorders including eczema and other dry-itching skin problems. Your dry, drab skin will be moisturised with watermelon seeds.

Because it has the power to speed up cell division, repair, and protein synthesis, the zinc present in seeds can slow down the ageing process.

2: Helps in strengthening the hair

Everyone appreciates having healthy hair. So why not accomplish this with watermelon seeds? Proteins, iron, magnesium, zinc, and copper are all found in abundance in watermelon seeds, and these nutrients have been shown to enhance hair quality. These seeds encourage hair development and hair strengthening. The seeds' manganese content aids in reducing hair loss and harm.

3: Improves heart health

There are several ways that watermelon seeds can improve heart health. containing both monounsaturated and polyunsaturated fatty acids in adequate amounts. According to studies, these healthy fats can help prevent heart attacks and strokes. This seed has a high magnesium content, which protects the health of your heart and maintains normal blood pressure.

The anti-inflammatory, antioxidant, and vasodilator properties of watermelon seeds may explain why they are beneficial for a healthy heart. The iron it provides is essential for transporting oxygen-rich blood throughout the body. Zinc, which is essential for maintaining heart health, is also abundant in watermelon seeds. It controls the heart's calcium transport.

4: Lowers blood sugar levels

Try include these miraculous seeds in your diet if you experience blood sugar swings. Magnesium aids in the regulation of glucose metabolism, which has an immediate effect on blood sugar levels. Treatment for type 2 diabetes is aided by these seeds.

5: Boost the immunity system

Iron and other nutrients included in watermelon seeds help to strengthen the immune system. Additionally, the vitamin B complex included in these seeds is beneficial in this area.

6: Prevent osteoporosis

Try incorporating watermelon seeds if you suffer from ailments like osteoporosis or weak bones. Watermelon seeds, which are rich in magnesium, copper, and potassium, can help prevent bone diseases if consumed often.

7: Supports nervous system

Vitamin B, which supports the health of your brain and nervous system, is abundant in watermelon seeds. Dementia and mood disorders can both benefit from it.

8: Improves male fertility

Zinc, which is crucial for the health of the male reproductive system, is abundant in watermelon. Zinc can aid in enhancing sperm quality, which is the main problem in male infertility.

9: Boosts energy levels

Micronutrient-rich watermelon levels aid to increase and sustain your energy for a longer amount of time.

These mystical watermelon seeds are extremely delectable and nutrient-dense, despite the fact that many people are unaware of them. Every time you feel hungry, you can consume one as a snack to stay fuller longer.

10: Boosts Metabolism

Nutrients like folate, iron, zinc, copper, magnesium, potassium, amino acids, and vitamin B complex are known to be abundant in watermelon seeds. These nutrients are incredibly beneficial for controlling and enhancing the body's natural metabolism.

11: Helps to Reduce the Effects of Asthma

Watermelon seeds are advantageous in the treatment of asthma symptoms because they contain a significant amount of Vitamin C. A strong dietary antioxidant like vitamin C can help lessen the consequences of asthma. More research is required despite the existence of studies that offer some hope about the benefits of watermelon seeds on asthma. Watermelon seeds, on the other hand, are completely safe to eat and ought to be a choice for those with asthma.

12: Helps Reduce the Risk of Prostate Cancer

A substance known as lycopene is found in both the seeds and the watermelon. Studies have shown that lycopene has potent anti-cancer effects. According to a 2015 study, lycopene can help to some extent prevent the onset and/or development of prostate cancer.

How to Consume Watermelon Seeds

The best way to eat watermelon seeds is grilled. To prepare a salty snack, just roast some watermelon seeds and sprinkle them with salt. This is a convenient method to eat watermelon seeds while still staying healthy. In addition, you may use watermelon seeds in other spectacular dishes that you can attempt at home.

• Bar with Watermelon Seeds

Start by toasting the watermelon seeds over medium heat in a pan. You may put the seeds in a basin after they turn crimson in colour. These seeds must then be covered in a thick sugar syrup. Once it is finished, press the sugar-coated watermelon seeds onto a skillet with coconut oil to create thick cakes. The cakes may also be divided into watermelon seed bars, which you can have as a sweet and salty snack. Watermelon Seeds Rice.

This version is spicier and may be eaten as a dinner by itself. You may start by dry toasting red chilies and watermelon seeds in a skillet. Put this roasted mixture in a basin, season with salt and sugar, and pulse until it resembles coarse powder. Next, add some oil to a pan and then add some curry leaves, asafoetida, mustard seeds, and urad dal. You may now add peanuts to this and lightly fried them until they are well-browned. Finally, combine this with some previously boiled rice and the powder made from finely ground watermelon seeds. The entire family may now enjoy your rice with watermelon seeds.

• Barfi Watermelon Seeds

With watermelon seeds, you can also create some delicious treats that are very healthful. Start by simply powdering watermelon seeds to a respectable fineness. Then you must prepare a sugar syrup in a pan, add this powder to it, and wait until the mixture thickens and resembles cake. Your watermelon seeds barfis are ready to serve once you have cut these into little diamonds.

Watermelon nutritional contents:

The summer season is almost approaching, so now is the perfect time to indulge in delicious seasonal fruits like watermelon, litchis, and mangoes. Water melon is one of the most popular summer fruits. This squishy, delicious fruit is actually readily available and doesn't require an introduction.

Due to its high water content (92%) and abundance in vitamins and minerals, water melons are highly hydrating fruits. Many seeds are also present in this delicious melon, which we often discard after eating. However, did you realise that these tiny, black seeds are really incredibly nutrient-dense? Explore the information below to learn more about the mystical qualities of the tiny seeds inside the enormous watermelon fruit.

Benefits of watermelon seeds for health They include a variety of micronutrients, including copper, zinc, potassium, magnesium, iron, folate, and others, all of which have several health advantages, and they are low in calories.

Following is a list of some of them:

Good for heart and immunity:

Watermelon seeds are also associated with improved health and a stronger immune system. These seeds can treat hypertension, which is directly tied to heart health because of the magnesium they contain. A regular intake of watermelon seeds in a reasonable amount supports heart health and blood pressure maintenance.

strengthens your bones:

Copper, manganese, and potassium are abundant nutrients in watermelon seeds. And these minerals work in conjunction with other micronutrients to strengthen our bones.

Boosts metabolism:

Powerful minerals including folate, iron, zinc, copper, magnesium, and potassium are concentrated in watermelon seeds. These seeds are regarded as being very nutrient-dense because to their abundance in proteins, amino acids, and vitamin B complex. Together, these nutrients support your body's metabolism by increasing it.

No unhealthy fat:

They include certain good fats that are vital for the body. Healthy fatty acids like oleic acid and linoleum acid, which are necessary for the body's optimal operation, may be found in watermelon seeds.

Good for diabetics:

The management of diabetes can be greatly aided by these black seeds. It is well recognised to lower raised blood sugar levels, making it a suitable snack choice for diabetics.

Gives you glowing skin:

Watermelon seed oil is commonly used as the principal component in cosmetic treatments that cure acne and early indications of ageing. These seeds contain antioxidants that aid in the reversal of early skin ageing. Consuming these seeds might give your skin an inner shine. To have noticeably healthy skin, include a few seeds in your regular diet. It also reduces dryness and offers moisture to injured skin owing to the presence of fatty acids.

Improves the quality of hair:

Proteins and iron included in the seeds are proven to enhance the texture and quality of hair. It encourages hair renewal while also strengthening your hair strands. These have a high magnesium concentration, which strengthens hair and reduces breakage and hair fall.

How to use watermelon seeds in your daily life:

The watermelon seeds should be dried before being roasted. They can be kept for many days in sealed containers. For people who are always peckish, this might be a pleasant and healthful snack alternative. These will improve your nutrition, and you may use these small seeds in salads or with other nuts to gain

an additional advantage. You can grind it into a powder and get the same flavour and advantages if you don't want to consume the seed form.

Did you ever panic as a child after ingesting watermelon seeds while enjoying the luscious fruit? You're not alone, as it happens! However, the myth surrounding eating watermelon seeds seemed to vanish as we grew older. A mouthful of seeds while enjoying a piece of watermelon is a complete bummer, childhood memories and all. However, this delicious fruit and its seeds are much more than their outward appearance would suggest.

As much as we like watermelons for their dietary fibres and other minerals, especially on sunny days, their seeds are incredibly rich sources of a number of nutrients. Not only are watermelon seeds (roasted and sprouted, of course!), but they also provide the body with a fantastic burst of nourishment.

The seeds of Cucurbitaceae species, which make up the plant family that includes watermelon, have been shown in numerous studies to be potential sources of nutrients like protein, minerals, and lipids as well as components of traditional medicines.

Benefits Of Watermelon Seeds For Skin

1. Retains Skin's Elasticity|

Watermelon seeds are fantastic for your skin in addition to being good for your health. Regular consumption of these super-seeds can extend the life of the elasticity in your skin, helping to avoid acne outbreaks and remove dullness and early indications of ageing.

2. Moisturises Skin

Since watermelon seeds are a good source of beneficial fatty acids, they tend to provide your skin a moisturising layer, as well as firmness and protection from any skin conditions.

3. Prevents Clogging Of Pores

One of the most prevalent problems women encounter is open pores. However, employing watermelon seed extracts or watermelon oil might provide you with a successful treatment for open pores.

Pro tip: Using watermelon seed oil to massage your face will do the most good for your complexion. This will assist in closing up any open pores and giving your skin an even tone.

Benefits Of Watermelon Seeds For Hair

1. Black And Shiny Hair

Watermelon seeds are great for the health of your mane since they are a great source of copper, which is necessary for the body to produce melanin. It also delays the onset of premature grey hair.

2. No Hair Breakage

The same way that this super seed keeps your skin moisturised, it is also an excellent source for strengthening your hair and greatly reducing hair breakage.

Advice: Massage your scalp once a week using a mixture of watermelon seed oil and your preferred carrier oil. For best results, let it sit for 3–4 hours before washing with a light shampoo and warm water.

Ways To Include Watermelon Seeds In Your Diet



1. Roast Them

Watermelon seeds are tastiest and most frequently consumed when roasted. Place the watermelon seeds on a baking pan in the oven and preheat to 325°F for 15 minutes. You may even roast them on a gas range as an alternative.

2. Sprouts

Making and consuming watermelon seed sprouts is the healthiest way to ingest watermelon seeds. But it takes a little while for these seeds to begin to grow. Soak the seeds in water for an entire night or until sprouts appear. Depending on the temperature, this can take two or three days. When the sprouts are finished, you may either let them dry in the sun or in the oven. In any case, they are ready to enhance the nutritious content of your diet.

3. Watermelon Seed Oil

Additionally, watermelon seeds may be pressed for oil and used to make salad dressing. Watermelon seed oil extraction can be a very drawn-out procedure. The majority of individuals choose to purchase watermelon seeds at the market. Please be aware, nevertheless, that it might be quite pricey when compared to other products that provide comparable advantages.

Once you've decided how much watermelon seeds you want to eat or put in your diet, control the portion. Even though these super seeds are excellent for your health, eating too much of them might make you gain weight. The best way to eat them is roasted, as a mid-afternoon or midnight snack to satiate hunger.

Food Recipe: Peanut Butter, Melon Seed, And Mixed Berry Smoothie

This recipe is shared by chef Rakesh Talwar, The Terrace, A Maiden Affair



Ingredients:

| | | |
|---------------------|--------|----------------------|
| Peanut | butter | 30gms |
| Mix | | berries 50gms |
| WaterMelon | seeds | 30gms |
| Banana | | 1pc |
| Soy | milk | 45ml |
| Honey for sweetness | | |

Method:

- Use a food processor to combine the ingredients listed above.

In a basin, pour it.

- Add granola, dried coconut, watermelon seeds, berries, and a honey drizzle for garnish.

FAQs On Watermelon Seeds



- Are watermelon seeds safe to consume?

Watermelon seeds are safe to eat, in contrast to a common hoax. The ideal method to take it and reap its health advantages, like with other solid foods, is to chew it properly. According to medical professionals, a cup of watermelon seeds may give our bodies 10 grammes of protein. Additionally, it is abundant in copper, zinc, multivitamins, magnesium, and other minerals that may enhance our body's performance to a higher degree.

- **Are watermelon seeds that have grown healthy?**

All varieties of germinated seeds have more nutritional value than their ungerminated counterparts. The nutritious density of watermelon seeds that have been sprouted is also higher.

- **What flavour are watermelon seeds?**

To start, let's make clear that watermelon seeds are not at all similar to watermelons. They have a flavour that is mostly similar to sunflower or flax seeds with a nutty undertone.

CONCLUSION

According to the study, watermelon seeds are a good source of fibre and nutrients that the body need. When compared to seeds from the black diamond and charleston grey kinds, the seeds from Crimson delicious promise to be a higher source of phenols and have the highest antioxidant activity. If ingested fresh or used in culinary items, these watermelon seeds may give significant medical, health, and economic advantages.

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