

Nutritional quality in Millets and their health benefits.

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Abstract:

Now it is an established fact that the whole world is facing many health challenges because of fibreless food. Using daily intake of wheat, rice, refined food, processed meat, packed food, so many disorders are created in Human body. Cultivated grains in the words. Millets is a good source of protein, fibre, vitamins, and minerals. The potential health benefits of millets include protecting cardiovascular health, preventing the onset of diabetes, helping people achieve and maintain healthy weight and managing inflammation in the age.

Millets are impressive, hardy, cereal crops that are low maintenance and drought – resistance thriving in semiarid environments.

Key words: Millets, Antioxidant, Gluten free, high fibre, celiac disease.

Introduction: The term village does not refer to a single type of grain, rather to a group of small seeded, annual grasses. Millet is an indigenous crop in Africa and Southeast Asia. Millets is one of the oldest cultivated grains in the world. Millets are impressive, Hardy, serial crops that are low maintenance and drought resistance semiarid environment. Millets also grow at an unprecedented rate, maturing in as little as 60 days. Millets in an indigenous crop to India that comes with an impressive nutrient profile. They are formed as “poor main food grain”. Now it is an established fact that the whole world is facing many health challenges because of fiber less foods. The glycemic content of millets is low, and they are an excellent food product for weight loss. Millets boost your immunity. Low glycaemic index in millets. Millets is a good source of protein, fibre, vitamins, and minerals. The potential health benefits of millets include protecting cardiovascular health, preventing the onset of diabetes, helping people achieve and maintain of healthy weight and managing inflammation in the age. Millets have multiplied their benefits in include this ancient, prized grains - like seed in our regular diet. Full feeling the nutritional need of global population as a nutritious food. Effectively and to reduce the problem of malnutrition and other health problems.

Objectives:

1. To introducing the millets.
2. To know the importance of millets
3. To know the nutrition of Millets
4. Explain the health effect of eating millets.

Hypothesis:

1. Millets is for health.
2. All economic group can eat millets.
3. Twice a day eating millets will result in weight loss.
4. Millets is rich source of fiber, minerals & antioxidant.
5. Millets is low calories & sugar.

Discussion:

Millets are divided two broad categories.

Naked grains and Husked grains

1. Naked grains – Naked Grains refer to millets devoid of the tough, indigestible husk, namely Bajra, Jawar and Ragi. These millets don't require processing after harvesting. Can be consumed right after cleaning. These millets are there for significantly cultivated today.
2. Husked grains – Kodo, foxtail and little millets belong to this second type of millets consist of an indigestible seed coat that has to be removed before consumption. The processing once done by hand or mechanical. These millets making them less popular.

Types of millets:

1. **Sorghum** – Sorghum or Jawar is a staple food item. It is a complex carbohydrate that digests slowly. Sorghum is known to be rich in phenolic compounds and antioxidants. Sorghum is high content of dietary fibre beneficial for Celiac's diseases. It helps in weight control, provides strong bones.
2. **Foxtail millet**– foxtail millets full loaded proteins and complex carbohydrates regulate blood sugar spikes, diminished bad cholesterol levels, and increase good cholesterol in the body. While being rich in Iron and Calcium in maintenance healthy blood levels and strengthen bones.
3. **Finger millets** – Ragi is a more common name for finger millets. It is used as help their cereal substitute for rice and wheat. Ragi is gluten free and rich in a protein and amino acids. Ragi is supposed the brain development is growing children.
4. **Pearl millet** – is called Bajra. Bajra is incredibly contains minerals such as calcium and magnesium, protein, fibre, and iron. Practice of regular consumption of pearl millet to fight type II diabetes and support weight loss. But it is used after soaking because pearl millet has a large amount of phytic acid.

5. **Little millet** – Little millets or kutki is a great millets option for all those fitness enthusiasts as it serves as a healthy millet. You can eat it as a rice replacement. It is high in fiber and filled with numerous Minerals and antioxidants.
6. **Buckwheat** -Buckwheat is used to lose weight. It makes for a healthy food option for diabetes, cures low blood pressure and improve cardiovascular health. Buckwheat also fights against diseases gallstones, childhood asthma and breast cancer.

Nutritional Content in 100 gm of dry grains.

| Millets | Protein in gm | Carbohydrates gm | Fat gm | Minerals gm | Fiber gm | Calcium Mg | Phosphorus mg | Iron mg | Energy K Cal. | Thiamine Ug | Niacin Ug |
|---------|---------------------|---------------------|-----------|----------------|-------------|---------------|------------------|------------|---------------------|----------------|--------------|
| Foxtail | 12.3 | 60.2 | 4.3 | 4.00 | 6.7 | 31 | 200 | 1.3 | 351 | 0.59 | 3.2 |
| Little | 7.7 | 67.00 | 4.7 | 1.7 | 7.6 | 17 | 220 | 1.7 | 329 | 0.15 | 2.0 |
| Kodo | 8.3 | 65.9 | 1.4 | 2.6 | 5.2 | 35 | 188 | 2.9 | 353 | 0.41 | 4.5 |
| Sorghum | 10.4 | 70.7 | 3.1 | 1.2 | 2.0 | 25 | 222 | 5.4 | 329 | 0.38 | 4.3 |
| Pearl | 11.8 | 67 | 4.8 | 2.3 | 2.3 | 42 | 240 | 11 | 363 | 0.38 | 2.8 |
| Finger | 7.3 | 72 | 1.3 | 2.7 | 2.6 | 34.4 | 283 | 3.9 | 336 | 0.41 | 1.1 |

Source: National Institute of Nutrition Hyderabad.

Health benefits of millets:

Calorie Contents of millets is low, and they are an excellent food product for weight loss. Not just those looking to lose weight it benefits people who are conscious of their energy too. It helps them to maintain their energy level throughout the day without having to eat to refuel themselves constantly. Millets also keep you settle for longer than other carbohydrates. When you consume them, you feel fuller for longer as they take time to get digested and absorbed into your body. That prevents making and overeating.

Millet is good source of rich fibre that benefits digestion by alleviating, bloating, gas and constipation. Good digestion keeps issues like gastric colon cancer and kidney, liver complications away. Millets are gluten free foods and beverages that can be suitable for celiac disease person (Taylor and other 2006) Lignans which is present in millets helps from breast cancer as it is converted into mammalian Lignan. Millets are rich in antioxidants such as Phenolic, tannins and phytates which help reducing which is effective for prevention of cancer progression (Chandrasekhar A. Et al. 2011)

Millets contain essential fat which provide our bodies with good fat which prevent excess fat effectively & lowers the risk of high cholesterol, strokes and other heart complications. The potassium contents in millets regulates your blood pressure and optimises your circulatory system. Millets are good source of magnesium which help in reducing heart attack, rich phytochemicals help in lowering cholesterol and prevent cardiovascular disease. Vit.B3,B6 can help lower cholesterol (Lee et al 2010) Millets have a low glycaemic index; therefore, consumption of millets regularly will lower your risk of developing diabetes. The whole grain foods consumption is effective for the prevention and management of diabetes mellitus, and showed that millets intake population epidemiologically lower of diabetes (American diabetes Association 2005, kim and other) Millets provide a great source of protein and can help develop and strengthen and Boost Your immunity.

Millets help your body detox because of, their antioxidant properties, curcumin, ellagic acid and other valuable catechins flush out toxins from body and neutralise the enzymatic actions of your organs.

Conclusion:

The aim of the study is to help the people to recognise the importance of food and to introduce the millets as a nutritious food, full feeling the nutritional need of global population and to find way to consume the millets nutritionally, effective and to reduce the problem of malnutrition and other health problems. Significant benefits, with their rich content of nutrients like fibre which help in metabolic disorders like diabetes, obesity, cardiovascular diseases etc. They are good protein content with help in child growth and development with calcium content with help in the bone development with geriatric people. Good iron content help in ailing of anaemia and with gluten free characteristics helps the celiac this is a patient and help in gluten insensitivity phytosterols and policosanols are cardio – protective compounds present in the wax layers of the millets. If these millets are ground into flour without hulling, then one can have multiply benefits. Millets have antioxidant, which are substance that may protect your sales against the effect of free radicals. Thus, using millets twice a day in a regular diet promotes weight loss.

Suggestion:

Millets must be avoided by thyroid issues people. Millets contain goitrogens that may interfere with the absorption of iodine which could be reduced in the cooking process, yet not negated completely hence those with hypothyroidism must steer clear of millets.

Phytic acid strong in pearl millets and phytic acid which is an anti nutrient that could reduced the observation of other nutrients but soaking, sprouting or fermenting the millets which will breakdown the anti nutrient and reduce its negative effects.

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