## NUTRITIONAL ASPECTS AND HEALTH BENEFITS OF MILLETS

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Millets are traditional grains, grown and consumed in the Indian subcontinent from the past more than 5000 years. Reference of Millets have been found in old ancient texts of Yajurveda where references of foxtail millet (priyangava), Barnyard millet (aanava) and black finger millet (shyaamaka), are mentioned. Most of millet crops are native of India and are popularly known as Nutri-cereals as they provide most of the nutrients required for normal functioning of human body. Millets are nutri cereals comprising of sorgum, pearl millet, finger millet (Major millets) foxtail, little, kodo, proso and barnyard millet (minor millets). These are one of the oldest foods known to humanity. Millets were on the dining table of Indians until 50 years ago. It was a staple food and integral part of local food cultures and traditions. But, just like many other things, millets have come to be looked down upon by modern urban consumers. Millets too have been discarded as being too primitive to be used, forgetting the roots. Before Green Revolution, millets made up around 40 percent of all cultivated grains in India (contributing more than wheat and rice).

### SOCIAL BENEFITS

Millets are rain-fed, hardy grains that have low requirements of water and fertility when compared to other popular cereals. Millets have very significant role in in Indian diet as they are:

- They are comparatively cheap
- Highly resistant to harsh climatic conditions
- Don't get easily destroyed
- Plays important role in food security and economy of country

India celebrated 2018 as the "Year of Millets" and the Food and Agriculture Organization (FAO) has declared 2023 as the "International Year of Millets". All these underline the importance of millets for the food security and as a future crop.

# NUTRI-CEREALS MILLETS

Millets are full of nutrition and dietary fibre. They serve as good source of protein and micronutrients. The millets contain 7-12% protein, 2-5% fat, 65-75% carbohydrates and 15-20% dietary fibre. The essential amino acid profile of the millet protein is better than various cereals such as maize. Millets are highly nutritious, non-glutinous and nonacid forming foods. Millets are gluten free and can be a substitute for wheat or gluten containing grains for celiac patients. By hydrating the colon, millets help us in staying away from being constipated. Millets have Niacin which help in lowering cholesterol. Millets are more nutritious than fine cereals. Small millets are good source of phosphorous and iron. All millets have high antioxidant properties.



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# HEALTH BENEFITS OF MILLETS

Millets have potential health benefits. It is evidenced that consumption of millets reduces

- risk of heart disease.
- protects from diabetes,
- improves digestive system,
- lowers the risk of cancer,
- detoxifies the body,
- increases immunity in respiratory health,
- increases energy levels,
- improves muscular and neural systems and are protective against several degenerative diseases such as metabolic syndrome and
- Parkinson's disease.

#### **Cardiovascular Diseases**

- Being rich sources of magnesium, millets help in reducing blood pressure and risk of heart strokes especially in atherosclerosis.
- Also, the potassium present in millets helps in keeping blood pressure low by acting as a vasodilator and help to reduce cardiovascular risk.
- The high fiber present in millets plays a major role in cholesterol lowering eliminating LDL from the system and increasing the effects of HDL.

#### **Diabetes Mellitus**

- The efficiency of insulin and glucose receptors in the body is increased by the significant levels of magnesium content present in millets and help in preventing diabetes.
- Finger millet-based diets are particularly useful.
   Finger millet also had shown significant results in dermal wound healing process.

## Gastrointestinal Disorders

- Fiber content in millets helps in eliminating disorders like constipation, excess gas, bloating and cramping.
- A gluten free diet primarily plays a major role in affecting food consumption in the grain food group. Replacing cereals like wheat, barley, rye-based foods with foods made from gluten free grains, including rice, corn, sorghum, millet, amaranth, buck wheat, quinoa, wild rice may help people adhering to gluten free diet.
- As millets are gluten free, they have considerable potential in foods and beverages and can meet the growing demand for gluten free foods and will be suitable for individuals suffering from celiac disease.

#### Cancer

- Millet grains are known to reduce the risk for colon and breast cancer.
- Recent research has revealed that fiber as one of the best and easiest ways to prevent the onset of breast cancer in women.

## Detoxification (Anti-Oxidant Properties)

 Millets may serve as a natural source of antioxidants in food applications and as a nutraceuticals and functional food ingredient in health promotion and disease risk reduction.

#### Conclusion

Millets are a whole grain loaded with protein, antioxidants, and nutrients. They have numerous health benefits, and gluten-free, which makes them an excellent choice for people who have celiac disease or want to follow a gluten-free diet.

Their nutty taste and versatility make them well worth trying.

Let's bring millets back to our plates for a healthy lifestyle and for the benefits of our coming generations.

