



ISSN 2456-3110

Vol 8 · Issue 10

October 2023

Journal of
**Ayurveda and Integrated
Medical Sciences**

www.jaims.in

JAIMS

An International Journal for Researches in Ayurveda and Allied Sciences



Maharshi Charaka
Ayurveda

Indexed

Empowering kids with Millet

Bimal Shah¹, Rakesh Sharma²

¹Post Graduate Scholar, Department of Kaumarbhritya, R.G.G.P.G. Ayurvedic College and Hospital, Paprola, Himachal Pradesh, India.

²Professor & Head, Department of Kaumarbhritya, R.G.G.P.G. Ayurvedic College and Hospital, Paprola, Himachal Pradesh, India.

ABSTRACT

Nutrition is the key component of health and development in which millets play a vital role as they are the major source of energy and nutrient powerhouse rich in protein, fiber, magnesium, phosphorus, copper, potassium and manganese. Millets are diverse species of small-seeded grasses that are commonly cultivated as cereal grains for human and animal nourishment around the world. Most of the species which are commonly referred to as millets belong to the Poaceae or Graminaeae family i.e., the grass family. Typical millet protein contains a high quantity of essential amino acids especially the Sulphur-containing amino acids i.e., methionine and cysteine. They are a source of antioxidants, such as phenolic acids and glycated flavonoids. Millet foods are characterized to be potential prebiotics and can enhance the viability or functionality of probiotics with significant health benefits. It possesses *Madhur Kashay Rasa, Katu Vipaka* and *Ushan Virya* and is *Kapha Vata Shamak*.^[1] Due to its *Brihaniya* property it is useful in malnutrition, on the contrary due to its *Laghu, Ruksha Guna* and *Vilekhana Karma* it can be used in obesity. The article reviews millets and their importance in children.

Key words: Millets, Nutrition, Obesity, Children

INTRODUCTION

Lifestyle diseases are characterized by the daily faulty regimen of children regarding eating and living habits. Indian Millets are a good option for living a healthy and disease-free life. Millets are a group of small seeded grains that have been cultivated and consumed by humans for thousands of years.^[2] They are known for their nutritional value, resilience in diverse growing conditions, and their contribution to food security in many parts of the world. Millets have gained popularity in recent years due to their health benefits, including

being gluten-free and rich in nutrients.

Classification

India is the top producer of millet followed by Nigeria. There are mainly eight types of millets which are commonly cultivated in India i.e.,

1. Sorghum (*Sorghum bicolor*): Sorghum is one of the most widely grown millets. It is known for its versatility and can be used for making flour, porridge, flatbreads and even beverages. Sorghum grains are typically small and round.
2. Pearl Millet (*Pennisetum glaucum*): Pearl millet is another major millet variety, particularly popular in Africa and India. It is known for its high tolerance to dry and hot climates. It is commonly used to make unleavened flatbreads.
3. Finger Millet (*Eleusine coracana*): Also known as Ragi in India, finger millet is rich in calcium and iron. It is often used to make porridge, dosas (pancakes), and other traditional dishes.^[3]
4. Foxtail Millet (*Setaria italica*): Foxtail millet has small, bead-like grains and is often used in South

Address for correspondence:

Dr. Bimal Shah

Post Graduate Scholar, Department of Kaumarbhritya, R.G.G.P.G. Ayurvedic College and Hospital, Paprola, Himachal Pradesh, India.

E-mail: mailtosbimal@gmail.com

Submission Date: 15/08/2023 Accepted Date: 23/09/2023

Access this article online

Quick Response Code



Website: www.jaims.in

DOI: 10.21760/jaims.8.10.18

Indian cuisine to make dishes like upma and idlis. It is a good source of carbohydrates and fibre.^[4]

5. Porso Millet (*Panicum miliaceum*): Porso millet is a quick maturing millet variety that is easy to cultivate. It is used in various dishes, including porridge, bread and animal feed.^[5]
6. Barnyard Millet (*Echinochloa esculenta*): Barnyard millet has tiny grains and is known for its short growing season. It is used in porridge, dosas and as a rice substitute in some dishes.
7. Little Millet (*Panicum sumatrense*): Little millet is often used in the preparation of upma, idlis and dosas in South India. It is nutrient-dense and a good source of protein and fiber.^[6]
8. Kodo Millet (*Paspalum scrobiculatum*): Kodo millet is rich in protein and is used in various culinary applications, including porridge and fermented foods.^[7]

Out of these mainly three varieties are easily available in India and regularly used by many parts of Indian states like in Maharashtra, Rajasthan etc. as follows: Sorghum, Pearl millet and Finger millet.

In our classical texts, comes under *Bhrutyatrayi* and *Laghutrayi* described as in *Truna Dhanya* (*Kshudra Dhanya Varga*) in *Bhavprakash Nighantu* of *Dhanyavarga Adhyaya*.^[8]

Raspanchak of Truna Dhanya Varga

- Rasa - Kashay and Madhur
- Vipaka - Katu
- Virya - Anushna
- Guna and Prayog - Lekhan, Ruksha, Kleda Shoshak.
- Doshaghna - Kapha Pitta Shamak and Vatakarak.

Every millet has additional qualities mentioned as:

1. Kangu, Priyangu - Foxtail Millet

Other Guna and Prayog are *Guru* (heavy for digestion), *Sangrahi* (absorbs excess fluids and aids in the natural development of faeces and increases digestion), *Brumhana* (nourishes bodily tissues), *Shoshana* (dries up extra moisture), *Bhagnasandhanakrit* (heals

fractures), *Durjara* (difficult for digestion) and *Vrishya* (aphrodisiac). It is used as a substitute for rice.

2. Kodrava / Koradusha - Kodo Millet

Madhur Tikta Rasa, Guru (heavy for digestion), *Param Graahi* (absorbs excessive fluids and helps for normal formation of faeces), *Vishahara* (anti-poisonous), *Avrishya* (anaphrodisiac) *Pathya* in *Vrana* (good food in wounds and ulcers). It can be given as a rice to diabetic patients.

3. Cheenak / Cheena - Porso Millet

Guru (heavy for digestion), *Durjara* (difficult for digestion), *Brumhana* (nourishes the body tissues), *Bhagnasandhanakara* (promotes fracture healing).

4. Shyamak / Sawa - Barnyard Millet

Shyamak Panchang is used in *Pittaj Vikara* and *Vibandha*. It is also known as the cereal of the poor. It is also *Sangrahi* (absorbs excessive fluids and helps for normal formation of faeces) and *Dhatu Shoshak* (dries the body tissues).

5. Yavanala - Jowar

Ruchikar (enhances taste perception), *Trishnaghana* (decreases excessive thirst) and *Kledaghana* (decreases excessive moisture content).

6. Gavedhuka - Adlay millets

Katu-Madhura rasa, Karshyakari (emaciating) and *Kaphahara* (decreases *Kapha Dosh*). Other properties similar to *Shyamak*. It also has properties like *Mutral* (diuretic) and is hence used in *Mutra Kricha*. Chapati made from this grain helps in weight loss.

7. Naritiki - Ragi

Tikta-Kashaya, Madhur Rasa, Sheeta (cold in potency), *Snigdha, Balya* (promotes strength), *Vrishya* (aphrodisiac).

Indications^[9]

- As *Lekhana Dravya* in *Sthaulaya* (obesity) and *Kaphaj Vyadhi* like *Prameha* (Diabetes).
- Nourishing effect due to *Madhur Rasa* and are easily digestible (*Laghu*) in nature.

- Mainly indicated in excessive *Amavastha*, *Mandagni* (due to any disease), *Shotha*, diabetes and obesity.
- Calcium, Dietary fibre, Carbohydrates, Amino acids and Polyphenol are mainly present.

Benefits ^[10,11]

- Increases immunity in children mainly respiratory health.
- Helps in PEM Disorder.
- Rich in Fiber so it hydrates the colon and prevents it from being constipated.
- Being alkaline, digests easily and improves the digestive system.
- The serotonin present helps calm the mood.
- Contain Vitamin B3 (Niacin) and Magnesium helps in maintaining cholesterol level and reduce the episodes of migraines respectively.
- Contain Phenolic acids and flavonoids which help to prevent the risk of diseases.
- Has antioxidants which act as prebiotic and probiotic and also act as antimicrobial, antidiabetic and anti-tumorigenic.
- Contains high-energy nutrients and helps in nourishment.
- Has a relatively low glycaemic index and produces low blood sugar levels because of containing lots of fibre and low simple sugars.

CONCLUSION

Millets are a group of small-seeded grasses that are highly nutritious and versatile. They are gluten-free, rich in fibre and packed with essential nutrients like iron, magnesium, and phosphorus. In the present era, children's preference for fast food is causing malnourishment, stemming from either over-nourishment or undernourishment. These grains are highly regarded for individuals with gluten sensitivity, being among the least allergenic and easily digestible food options. Millets, being beneficial in this current era, find optimal use in *Santarpan Janya Vikaras*

(diseases due to over nourishment) and *Kapha Pittaja Vikara*. They are readily accessible and cost-effective and boast a wide array of essential nutrients including carbohydrates, proteins, fats, dietary fibre, vitamins, minerals, antioxidants, and phytochemicals. In the current era, where the prevalence of junk and processed food is causing imbalances in *Rasavaha* and *Medovaha Srotas* (channels related to nutrient and fat metabolism), millets offer a promising solution as a nutritious food source.

REFERENCES

1. Acharya Charaka. Sutrasthana, Annapanavidhi Adhyaya. In: Vaidya Jadavaji Trikamji Acharya (ed.) Charaka Samhita. Delhi: Chaukhambha Prakashan; 2011; p. 154.
2. Ambati K, Sucharitha KV. Millets – Review on Nutritional profiles and Health benefits. Int J Recent Sci Res. 2019 Jul;10(7):33943–8.
3. Gull A, Jan R, Nayik GA, Prasad K, Kumar P. Significance of Finger Millet in Nutrition, Health, and Value-added Products: A Review. J Food Process Technol. 2014;3:1601–8.
4. ICAR – Indian Institute of Millets Research. 2017.
5. Kalinova J. Nutritionally important components of Porro millets (*Panicum miliaceum* L.) food. Global Sci Books. 1(1):91–100.
6. Reddy OSK. Smart Millet and Human Health. Green Universe Environ Serv Soc. 2017.
7. Deshpande SS, Mohapatra D, Tripathi MK, Sadvatha RH. Kodo millet - Nutritional Value and Utilization in Indian Foods. J Grain Process Storage. 2015;2.
8. Bhavamishra. Dhanyavarga. In: Dr. K.C. Chuneekar (cm.), Dr. G.S. Pandey (ed.) Bhavaprakasha Nighantu. Varanasi: Choukhambha Bharti Academy; 2002; p. 656–61, 667.
9. Millet India [Internet]. [cited 23]. Available from: <http://milletsindia.org>
10. Indian Institute of Millet Research (IIMR), Hyderabad.

11. Bommy D, Kavitha Maheshwari S. International Journal of Current Research and Academic Review.

How to cite this article: Bimal Shah, Rakesh Sharma. Empowering kids with Millet. J Ayurveda Integr Med Sci 2023;10:123-126.

<http://dx.doi.org/10.21760/jaims.8.10.18>

Source of Support: Nil, **Conflict of Interest:** None declared.

Copyright © 2023 The Author(s); Published by Maharshi Charaka Ayurveda Organization, Vijayapur (Regd). This is an open-access article distributed under the terms of the Creative Commons Attribution License (<https://creativecommons.org/licenses/by-nc-sa/4.0>), which permits unrestricted use, distribution, and perform the work and make derivative works based on it only for non-commercial purposes, provided the original work is properly cited.