

## Importance of Indian millet in life style disorders in children with Ayurvedic concept.

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### Abstract:

Lifestyle diseases are characterized by the daily faulty regimen of children regarding eating and living habits. For younger population the risk of lifestyle diseases start from school going age. With rapid economic development and increasing westernization of life style in past few decades, prevalence of these diseases has reached to alarming proportions amongst Indians in the recent years. The main factors contributing life style diseases included bad food habits like bakery products such as Cookies and breads also junk food or ready to eat food i.e wafer's, Burger's, Pizza and Cheese. Physical inactivity due to addiction to electronic gadget plays an important role in lifestyle disorder. Lifestyle disorder in children includes obesity, Diabetes mellitus and metabolic syndrome etc. Ayurveda is recognized for foremost life science and describes way to prevent and manage lifestyle disorders, by providing better solution in the form of proper dietary management and lifestyle advises. Ayurveda has provided many good options like food grains for a healthy lifestyle. Indian millets are good option for living a healthy and disease free life. It possess Madhur-Kashaya rasa, katu vipaka, ushna virya and are kapha vata shamak. Due to its bruhaniya property it is useful in malnutrition, on contrary due to its laghu, ruksha guna, vilekhana karma it can be used in obesity. In present review article the less explored, under-utilized, nutrient rich, commercially available Indian millets are enlightened.

**Key Words:** Lifestyle disorders, Indian millet, Obesity, Diabetes mellitus, Metabolic syndrome

### Introduction:

#### Life Style Disorders:

A disease that is caused due to health damaging choices that we made in our day to day life.

**Time** Also restricted physical activity due to electronic gadget's and indoor games leads to occur a lifestyle disorder.

Life style disorders in children are common in these days due to faulty habits. They are as follows.

- Obesity
- Gasrtointestinal problems
- Diabetes
- Hypothyroidism
- Depression

Which further leads to

- Cardiovascular diseases
- Some types of cancer In their adolescent life.

#### Speciality of above diseases:

- It takes years to develop and if occurred once, is not easy to cure.

#### Risk Factors

Controllable risk factors are

- Diet and body weight

- Daily levels of physical activity
- Level of sun exposure
- Passive smoking
- Behaviour

#### Concept of Aahara(Diet)

- Most health problems arises due to wrong eating habits and it is one of important cause of all life style disorders.
- In Ayurveda, basically promotion of health and prevention of disease is given more importance than treatment of disease.
- Health and disease is depended on 3 factors i.e *ahara*, *vihara* and *oushadhi* also it depends on *trividh upastambha* and among these food(*ahara*) is considered as most important one.
- Ayurveda emphasizes the characteristic of food in term of quality, quantity, and time which varies with age, habitat, digestive power, disease and also liking as per *prakruti* of individual.
- Food is considered as *Mahabheshaj* as per *Acharya Kashyap*.
- Any material in universe, according to Ayurveda is composed of five basic elements –the *panchamahabhut*.
- Each dietary item may have *Dosha aggravating*, *Dosha pacifying* or *Dosha balancing* actions in body.

- Specific diet has been mentioned in Ayurveda to maintain the balance of Dosha.
- *Aahar vidhi visheshayatan* i.e. concept of consumption of food is only told in *ayurveda*.
- Planning and indulging in diet, balancing all these elements maintain the haemostasis in body.
- The proper intake of diet not only prevent many health problems but also play major role in management of disease.

### Indian Millet

- India is the top most producers of millets followed by Nigeria.

There are mainly eight types of millets which are commonly cultivated in India. i.e.

1. Sorghum
2. Pearl millet
3. Finger millet
4. Little millet
5. Kodo millet
6. Italian millet
7. Barnyard millet
8. Proso millet

- Out of these mainly three varieties are easily available in India and regularly used by many part of Indian states like in Maharashtra, Rajasthan etc.

They are as follows

1. Sorghum (Hindi- Jowar, Marathi-jawari)
2. Pearl millet (Hindi- Bajra, Marathi- Bajari)
3. Finger millet (Hindi- Mandua, Marathi- Nachani)

### Ayurvedic Review of Indian Millet

- It comes in all *bhruyatrayi* and *laghutrayi*.
- It is described in *truna dhanya* (*kshudra dhanya varga*) in *Bhavprakash Nigantu* of *dhanyavarga adhyay*.

### Properties of Truna varga dhanya as per Bhavprakash:

- *RASA: Kashay* and *Madhur*
- *VIPAKA: Katu*
- *VIRYA : Anushna*
- *GUNA AND PRAYOG: Lekhan, Ruksha, Kled shoshak.*
- *DOSHAGNATA: Kapha-Pitta shamak* and *Vatakarak.*

Mainly the indication of millets as per ayurvedic texts as *lekhana dravya* in *sthaulaya* (obesity) and in *kaphaj vyadhi* like *prameha* (diabetes).

Millets has nourishing effect due to *madhur rasa* but at the same time millets are easily digestible (*laghu*) in nature. So

the indication is mainly in excessive *amavastha*, dull *agni* (*mandagni*) due to any disease, *oedema* (*sotha*), diabetes and overweight/obesity.

If taken with clarified butter and milk it will nourish the underweight children and toddler.

### Nutrient Composition

Following nutrients are mainly present in Indian millet.

- Calcium
- Dietary fibers
- Polyphenol
- Carbohydrates
- Amino acids

### Health Benefits Of Millets

- Millets have potential health benefits an epidemiological studies have showed that consumption of millets reduces risk of heart disease.
- Continuous consumption of millets protects from diabetes and also Millet is alkaline so it digests easily and helps to improve digestive system in children.
- Millet will hydrate your colon to keep you from being constipated.
- The serotonin in millet is calming to your moods.
- Millet is a smart carb with lots of fiber and low simple sugars. Because of this it has a relatively low glycemic index and has been shown to produce lower blood sugar levels than wheat or rice.
- Magnesium in millet can help reduce the effects of migraines.
- Niacin (vitamin B3) in millet can help to lower cholesterol level.
  - Millet consumption decreases triglycerides and C-reactive protein, Scientists in Seoul, South Korea concluded that millet may be useful in preventing cardiovascular diseases.
- It also lowers the risk of cancer and also increases immunity in respiratory health in children.
- Indian millet will help in PEM disorders in children.

### Other Benefits of Indian Millet

- Recognized as high energy nutrition food which help in proper nourishment and thus helpful in malnutrition.
- It contain 37-38% dietary fibres, which is highest among cereals.
- It plays significant role in providing nutraceuticals components such as phenols, tannins, phylates along with other nutrients.
- Millets have high protein content (15 percent) makes is a substantial addition to a vegetarian diet.

**Table No. 1: Millet properties and their health benefits in short table form.**

	High fibre content	Sugars are slowly released.	Helps in diabetes. Helps in constipation, intestinal cancer. Helps in Celiac disease.
Millets	Gluten free	Complex carbohydrate	Overall health management.
	Phytochemicals	Phenolic acids and flavonoids Antioxidant activity	Prevent disease risk.
	Neutraceuticals	Anti microbial	Helps as prebiotic and probiotic Anti diabetic Anti tumorigenic

**Discussion-**

- Millets are easily available and cheap in cost. Millets contain many major and minor nutrients like carbohydrate, good protein, fat, dietary fiber, vitamins and minerals as well as antioxidant and phytochemicals.
- Millet is source of antioxidants such as phenolic acids and flavonoids. Millet foods are also characterized to be potential prebiotic and can enhance the viability of probiotics with potential health benefits.
- The importance of this review study is to be recognized as an important food in current era as increasing use of junk food and packed food many rasavaha srotodusti and medovaha srotodusti diseases gradually increasing day by day. So, the millets as a nutritious food, can fulfill the need of global population in current era.
- This review study emphasized on nutraceutical properties of millets and the application of millets as alternative cereals potentially healthy to elaborate therapeutic food products like protein and energy rich diet, diet for diabetes, gluten free diet, CVD, etc.

**Conclusion:**

This review study showed that millets are used as “food medicine”. Due to gradual increase in numbers of santarpana janya diseases in adults and weaning difficulties and gluten allergies in late infantile age millets are boon to current era.

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