



## Diet for Different Age Group Children in Ayurveda

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### Review Article

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### Abstract

Diet i.e., *Ahara* is the one of the base of living being. Complexion, happiness, voice, life, talent, satisfaction, power, intelligence all etc. depended upon *Ahara*. In Ayurveda *Ahara* is base of life. *Ahara* is the best of all medicines and is considered one among the three sub-pillars of human life as per *Ayurveda (Trayo-Upasthamba)*. *Ayurveda* emphasizes on nutrition of children for maintenance of health. It has classified children on the basis of diet into 3 categories viz. *Ksheerapa* (from birth to 1 year)- who take predominantly breast milk, *Ksheerannada* (from age 1-2 year)- who take both breast milk and food and the *Annada* (above 2 years of age)- who take food similar to an adult. Food is necessity of life because food provides energy as well as nutrition. Health depends solely on the food human intake. Health, Strength & life depends on *Agni*. But *Agni* is also constantly replenished from the nutrition. So, to maintain *Samagni* eating balanced foods are essential. Toddlers & Pre-schoolers need adequate intake to achieve full growth and developmental potential. Various life style disorders and numerous diseases occur due to faulty dietary habits which may be prevented by proper *Ahara* and eating habits.

**Keywords:** *Ahara*; *Agni*; Nutrition; Growth

### Introduction

Nutrition is the basic fundamental need of every living organism. To cope up the need of all physiological functions of human body, an uninterrupted supply of nutrition is necessary. It is more essential subject of concern for infant and children during period of their growth and development. Both processes highly depend on genetic, environmental

factors and nutrition i.e., *Ahara*. Anything (food) consumed or ingested with the help of tongue, mouth and throat is called *Ahara*. The term *Ahara* comprises of all forms of foods including foods which can be eatable (*Ashita*), chewable (*Khadita*), drinkable (*Peeta*) and lickable (*Leedha*), that provide nutrition to whole body. *Ahara* is life of living being. Complexion, happiness, voice, life, talent, satisfaction, power, intelligence all are depended on *Ahara*. In *Ayurveda*, *Ahara*

is the base of life. *Ahara* (food) is the most important factor for existence of life [1]. It is described as foremost pillar among the three pillars of life which is known as *Trayopasthambha* (*Ahara*, *Nidra* and *Brahmcharya*) in *Ayurveda* [2].

In *Ayurveda* the universe is described to be formed from *Panchamahabhuta* (five basic elements namely *Akash*, *Vayu*, *Teja*, *Jala* and *Prithvi*). Accordingly, *Ahara* is also described to be *Akashiya*, *Vayavya*, *Agneya*, *Apya* and *Parthiva*, when it consumed in appropriate proportions, helps in providing nourishment to *Deha Dhatus* (body tissues), growth, development and enhancement of *Ojas*. *Acharya Kashyapa* said that there is no medicine like *Ahara* and *Ahara* alone can make people healthy, that's why it is called as *Mahabhaishajya* (the superior medicine) [3]. *Ahara* is responsible for enhancement of *Ojas* [4]. Various life style disorders and numerous diseases occur due to faulty dietary habits which can be prevented by proper *Ahara* and eating habits. *Ahara* is categorized as *Hitahara* (wholesome) and *Ahitahara* (unwholesome). Wholesome and unwholesome *Ahara* are responsible for happiness and misery respectively [5]. In a similar context, the terms *Pathya* and *Apathya* are also used to denote the acceptability and adaptability of a particular food in each context. *Acharya Charaka* gives a list of dietetics that should be and should not be taken regularly [6]. Let my food be my medicine. Toddlers and Pre-schoolers need adequate intake to achieve full growth and developmental potential. Children's cognitive development and ability to explore their surroundings are both hampered by malnutrition. With sufficient nutrition and environmental support, the long-term repercussions of undernutrition (cognitive impairment) can be avoided or alleviated.

### Aim and Objective

- To review the literature on healthy diet (*Ahara*) for children from modern and ayurvedic point of view.
- To elaborate the healthy diet (*Ahara*) for different age group of children in *Ayurveda*.

### Materials and Methods

Classical texts of *Ayurveda* like *Charaka Samhita*, *Sushruta Samhita*, *Astang Sangraha*, *Astang Hridaya*, *Kashyapa Samhita* etc. and modern textbook including digital media, Ayush Research Portal, PubMed, Google Scholar and other websites on internet regarding the subjects were utilized as source material in this paper.

### Importance of Ahara

The word "*Ahara*" is very much familiar since time immemorial. Various classics describe *Ahara* in their own

unique way. *Shabda Kalpa Druma* explains that *Ahara* is a substance which is swallowed through throat after eating [7]. *Acharya Dalhana* opines that the substance which is swallowed through *Anna-nalika* is called *Ahara*. *Acharya Chakrapani* opines that *Ahara* means anything that is ingested and thus it includes both diet and drugs. *Acharya Gangadhara* says that anything which is ingested by the tongue down to the throat is called *Ahara*. Therefore, drugs are also included in *Ahara*. From the above statement, it can be concluded that the word *Ahara* means any substance which is taken in via the mouth and swallowed through throat. A passage from the *Taittiriya Upanishad* describes the *Ahara* as "*Brahma* or the creator" and accords it the status of supremacy [8]. It is so true that all are created and maintained by *Ahara*. Right from the point of conception in mother's womb, all are nurtured by the *Ahara Rasa* or the nutrients unconditionally supplied and shared by mother. This food garnished with love and affection reaches through the foetal circulation, passing through the placenta or *Apara*. The foetus grows and matures with the help of this *Ahara Rasa* coming from the mother. Even after birth, the child growth depends on the mother diet, later period on own diet. So, the right diet and lifestyle from early years leave a permanent impact on the **child's** physical and mental wellbeing.

Modern dictionary named Collins Dictionary has defined the word food as "Any substance that can be ingested by a living organism and metabolized into energy and body tissue is known as food" [9]. According to Taber's Dictionary food is defined as "Any material that provides the nutritive requirements of an organism to maintain growth and physical well-being" [10].

### Current Days Food Habits and Probable Disease Conditions

Unhealthy food and eating habits such as eating too much, not enough, or restricting eating, can be harmful to a child's health and welfare now and in the future.

**Eating Too Much:** Overeating, particularly eating unhealthy foods raises a risk of being overweight or obese. Overweight or obese children are more prone to develop type 2 diabetes, sleep apnoea, and hip joint problems. Long-term risks include heart problems and some cancers.

**Not Eating Enough:** Children who adopt fad and crash diets do not get enough nutrients for appropriate growth and development. Severe under dieting can cause health problems as well as fatigue, poor concentration, a loss of bone density and muscle mass. Eating disorders in children include bulimia, anorexia, and avoidant restrictive eating disorder.

**Restricted Eating:** Unless a child has a medically diagnosed food allergy or intolerance, they should not restrict foods such as dairy or gluten products. Nutritional deficits and other health difficulties may occur if a youngster follows a limited diet without sufficient planning and/or expert monitoring. A child who does not intake dairy for an extended period of time, may not be getting enough calcium, vitamin D, energy, and protein to maintain ideal bone mass. A poorly constructed long-term vegetarian diet can prevent a child from getting enough nutrients, particularly iron and vitamin B12. Girls who have started their periods are especially vulnerable.

### Ahara According to Different Age Group of Children

Ayurveda emphasizes on nutrition of children for maintenance of health. It has classified children on the basis of diet into 3 categories [11] viz. *Ksheerapa* (from birth to 1 year)- who take predominantly breast milk [11], *Ksheerannada* (from age 1-2 year)- who take both breast milk and food [11] and the *Annada* (above 2 years of age)- who take food similar to an adult [11]. Ayurveda recommends for exclusive breast feeding up to 6 months of age and advises for complementary feeding, thereafter (after 6 months) in the form of *Annaprashan/Phalaprashana samskara* (first time food/fruit eating ceremony in children). Early initiation of breast feeding, exclusive breastfeeding, avoiding of the bottle feeding, hygiene and appropriate complementary feeding are important factors for the maintenance of the nutritional wellbeing of children.

**Ahara for First 6 Months Duration:** For a newborn, breast milk (*Stanya*) is considered as Amrita and Ayurveda praises breastfeeding i.e., *Stanyapana*. Mother's milk contains the exact proportion of fat, cholesterol, protein, and carbohydrates to fulfil the needs of a baby during first 6 months duration. Mother's milk is not only a perfect nutritional choice; but also protects against several diseases. So, it is exclusively advised at the early age of the child. The mother should start feeding the child from the very first day [12]. During first three days, there is the secretion of Piyush or colostrum, which is necessary for the development of immunity in children. According to *Acharya Kashyapa* breast feeding results in good growth, strength, longevity, and good health of the child as well as not causing any trouble or disease to the child [13].

- In any unavoidable circumstances or in the absence of Mother's Milk, goat milk or cow milk may be given in appropriate quantity, without dilution and with proper hygiene [14].
- The *Ghratpan* method: involves making ghee with

components including *Siddharthaka* (white mustard), *Vacha*, *Jatamasi*, *Payasya* (*Kshirakoli*), *Apamarg* (*Chinchada*), *Shatavar*, *Sariva* (*Anantmool*), *Brahmi*, *Pippali*, Turmeric, *Sugandh Kuth*, and Rock salt to feed to a breastfeeding child [15].

**Ahara for 6 months- 2 years duration:** Rapidly growing baby needs extra energy and calorific food and only breast milk can't suffice this need. Failure to which may lead to definite nutritional problems. Therefore, Breast milk should be continued as a main food along with complementary food in the beginning.

- Minimum three complementary foods along with breast-feeding and five complimentary foods in non-breastfeeding children should be given.
- *Phalaprashan* and *Annaprashana* Samskara are the special procedures explained in *Kaumarabhritya*. Initially the baby was given with fruits followed by solid food prepared with milk as the base. Both Samskaras explain the concept of weaning in Ayurveda.

**Phalaprashana Samskara:** It is performed at 6 months [16] and fruits are given to new-borns as a supplement. Vitamin C, D, and iron are lacking in mother's milk and must be supplemented by the fruits. These nutrients are abundant in fruit juices. Fruit juices, in addition to Agni vridhi, help to supplement extra nourishment, ease constipation, and keep children hydrated.

**Annaprashana Samskara:** After 10 months [16], children require concentrated energy- dense foods to maintain an adequate rate of growth. Many carbohydrates rich food should be taken as first choice for Anna Prashana. Carbohydrates are easily available, easily digestible and high energy yielding foods. Teeth begin to erupt, a biting movement begins, and the tendency to push solids out of the mouth decreases and the digestive system is mature enough to digest solid food. As the birth weight doubles, breast milk alone is no longer sufficient to provide nutritional needs [17].

- After six months, complementary foods that are simple to digest and nutrient-rich (*Brimhana*), should be introduced in a sequential manner while taking the baby's tolerance, demand, and digestion into account (*Agribala*). A variety of regional meals, including *Ragi-halwa*, *Nachni-halwa*, *Rajgira-halwa/Laddu*, *Idli*, *Dosa*, *Ambali*, *Hurihittu*, *Payasam*, *Dhan ki Kheer*, *Mixed Millet and Drumstick Leaves Dosa*, *Mung* (green gramme) *kheer*, *Khichadi*, etc., can be offered as a complementary food [18].
- Paddy should be taken and fried with husk intact, which

helps to restore micronutrients and vitamins. Later, husk should be removed and rice is powdered. Powdered rice can be given to the baby by mixed milk and ghee/coconut oil. This acts as a nourishing food [19].

- Many wheat preparations like *Godhuma* and *Yava* can be given by considering the congeniality and hypersensitivity [20].
- *Shali*, *Godhuma*, and *Yava* preparations can be mixed with *Vidanga*, *Lavana*, oil and *Ushna Avaleha* are prepared. This acts as a very good nourishing food [21].
- Introduction of solid food to an infant is mostly associated with gastric upsets. Hence, *Atisara* is common. Therefore, *Kodrava* like high calorific diet with slight *Madakari* effect should be given to improve the intestinal bacterial flora and to decrease the intestinal motility [21].
- *Acharya Vagbhata* explains certain nourishing food for weaning the baby. *Priyala Majja*, which is rich in essential fatty acids is mixed with *Madhuka*, *Madhu*, *Laja* and *Sita* and cooked into a *Modaka* form. This acts as a high calorie nourishing food for the baby and is best given during weaning period. This should be mixed with *Deepaneeya* drugs, *Lava Tittira*, *Sharkara*, *Laja*, *Saktu*, *Dhataki Pushpa* to enrich with energy [22].

- The Ghrithpan method: Ghee prepared from *Mulethi*, *Vach*, *Pippali*, *Chitraka*, and *Triphala* should be offered to the youngster who is consuming milk and food [23].

**Ahara for 2 Years-10 Years Duration:** A child from the age of 2 years is considered in *Annada Awastha* [24]. In this age child should be shifted on the cereals. All types of food with all forms i.e., *Lehya*, *Peya*, *Bhojya* etc. can be given during this age of life. Child should be fed well-cooked food made at home. Vegetables of all kinds, milk, nuts and seeds, whole grains, lentils, beans, and berries, among other foods, should be consumed. There should be at least 4 meals every day (2 major and 2 on-demand snacks) [18].

**Ahara for Above 10 Years:** There must be a minimum of three meals (breakfast, lunch, and dinner) per day, separated by at least two and a half hours. Whole wheat bread and starches, fruits, vegetables, ghee, lentils, eggs, fish, meat, milk, and dry fruits should all be included in a daily serving [18].

The Ghrithpan method: Children should be offered ghee fortified with *Panchamool*, *Kshirvidari*, *Tagar*, *Bhadradaru* (*Devdaru*), *Golmircha*, *Madhuka* (*Mulethi*), *Vidang* (*Vayvidang*), *Draksha* (*Munakka*), and both *Brahmi* (*Mandukaparni* and *Brahmi*) *Sadhit* ghee. When ingested, this type of ghee promotes health, strength, intelligence, and air quality [23].

Group	Particulars	Body weight (kg)	Net Energy (Kcal/d)	Protein (g/d)	Visible Fat (g/day)	Calcium (mg/d)	Iron (mg/d)
Infants	0-6 months	5.4	92Kcal/kg/d	1.16g/kg/d	-	500	46 µg/ kg/ day
	6-12 months	8.4	80Kcal/kg/d	1.69g/kg/d	19		5
Children	1-3 years	12.9	1060	16.7	27	600	9
	4-6 years	18	1350	20.1	25		13
	7-9 years	25.1	1690	29.5	30		16
Boys	10-12 years	34.3	2190	39.9	35	800	21
Girls	10-12 years	35.0	2010	40.4	35	800	27
Boys	13-15 years	47.6	2750	54.3	45	800	32
Girls	13-15 years	46.6	2330	51.9	40	800	27
Boys	16-17 years	55.4	3020	61.5	50	800	28
Girls	16-17 years	52.1	2440	55.5	35	800	26

**Table 1:** Showing Recommended Daily Dietary Allowances for Different Age Groups [25].

Dosha Dominance	To Recommend (Pathya)	To be Avoided (Apathya)
Vata	Raktashali, Shastika Godhuma, Jwar, Mudga, Masura, Mangalya, Soyabeen, Rohit Matsya, Mutton, Seasonal fruits like Anjir, Angur, Khajur, guava, apple, Narikel, milk. ghee, buttermilk, Navneet/butter, paneer, cheese	Yavaka, Masha, Chicken, Nikucha (atrocarpuslakoocha)
Pitta	Raktashali, Shastika Godhuma, Mudga, Masura, Rohit Matshya, seasonal fruits like dry plum(ber), Khajur, musk melon, apple, jujube, rasin, fig, pomegranate, dairy products	Yavaka, Masha, Tuwar dal, Gomansa, chicken, eggs, banana, coconut, citrus fruits, milk, curd
Kapha	Raktashali, Yava, Mudga, Mangalya, Matsyamansa, chicken, eggs, seasonal fruits like pea nut, fox nut, cashew nut, all dairy products can be taken except buffalo milk/curd	Shastika shali-rice, Godhuma-wheat, Masha/black gram, Gomansa, Chilchim fish, banana, Dadima, Avi(sheep) Dugdha/ curd/milk

**Table 2:** showing Pathya and Apathya for Dosha Balance in Children [26].

Growth and development are normal biological phenomenon of all living beings. Child growth and development examine the physical, biological, Social and emotional growth of young child to adult. Family, play, health, and nutrition are important factors that have an impact on their typical growth and development in this procedure. The child's nutritional food is digested by Agni, resulting in appropriate growth and development. *Ayurveda* lays a great deal of emphasis upon proper diet for the preservation & promotion of positive health, and prevention and cure of diseases.

*Ahara* is considered as *Bahyaprana* as it gives nourishment to body and protects from the infection, improves functioning of sense organs, imparts physical and mental well-being and enhances process of growth and development in child. Human nutrition is the only factor that influences health. Three main activities including *Ahara*, *Swapna (Nidra)*, and *Brahmacharya* determine how long a person's "Swasthya" will last. *Ahara* has an important function in the stages of health, illness, and recovery. Wholesome diet is essential for the body's growth and development, while an unwholesome diet contributes to a number of disorders. Agni is essential to the life, health, and strength. But the food that people eat also constantly replenishes Agni. Eating a balanced diet is therefore crucial for maintaining "Sama Agni." Balanced foods are important. Throughout the whole life span, nutrition is a crucial pillar of human survival, health, and development. Most of incurable diseases are produced due to improper nutrition. To prevent diseases and properly maintain good health, one should first eat food in the right quantities. An intelligent and self-controlled person should take conductive food in the right quantity and at the right time. The quantity of food to be taken again depends on the pattern of digestion. The powers of digestion and metabolism again vary according to the season as well as the age of the individual. The eating patterns developed

now have an impact on later food preferences and health. Based on one's ability to digest food, one should establish the recommended serving size of food. With sufficient nutrition and environmental assistance, long-term repercussions of under-nutrition (cognitive impairment) may be prevented or alleviated.

## Conclusion

It concluded that for all disease wholesome and unwholesome (Pathya and Apathya) food ingredients should be specified. If a person, suffering from any disease should follow strictly the regulations of diet. Food, when consumed in the right amounts, gives energy, a healthy complexion, and strengthens tissues. Living in harmony with one's surroundings and eating in accordance with one's physical makeup are necessary for a healthy lifestyle. A child should only consume milk up until the age of one year, *Peya* and *Lehya* *Ahara* up until the age of two, and all other forms of *Ahara*, which are crucial for a child's healthy growth and development, after the age of two.

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