



NUTRITION FOR EYE AS PER AYURVEDIC AND MODERN ASPECT

Mukesh Kumar Gupta¹, Anubha jain²

¹Associate Professor and HOD, Department of Shalaky Tantra, Government Autonomous Dhanwantari Ayurved College, Ujjain, India

²Assistant Professor, Department of Shalaky Tantra, Government Autonomous Dhanwantari Ayurved College, Ujjain, India

Corresponding Author: drmukeshgupta95@gmail.com

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ABSTRACT

Eating the right food can protect our vision and keep us healthy, therefore diet is a key lifestyle factor that can have long-term effects on ocular health. Age is the greatest risk factor for the development of cataracts and ARMD. If we start to take healthy and nutritional food earlier than we can delay or abort the growth or progression of this disease. For this reason, we should firstly know what to eat and what to not. This can be planned with the help of *Netra Pathya* and *Apathya*, which is clearly demonstrated in our classical *Ayurvedic* text. If we properly follow the dietic routine according to *Ayurveda* as early as our age is growing than we can be protected from eye fatigue, and eye strain and it also helps in blue light absorption followed by maintenance of healthy vision. So, if the *Ahaara* and also the *Vihara* which is advised by our acharyas, can be followed in early life or even can be introduced to the babies as soon as possible according to their age, can achieve proper functioning of the eye for their whole life.

Keywords: ARMD, Blue Light, Ayurveda

INTRODUCTION¹

The eyes are our window of the world and any disease affecting them needs priority treatment. They also help us to maintain the sharpness of our minds. Therefore, out of all the five senses vision seems the most important. So, we should start to take care of vision as early as the child is born, even though also during pregnancy by taking care of the mother also, as a child's visual development begins during pregnancy too. In the present era due to many environmental factors, sedentary, stressful, and faulty lifestyle, eye disorders are quite common. At present time general population normally have the habits of smoking, tobacco, liquor, junk foods, electronic gazettes, television, computer, and mobile phones as a part of their life. So, eyesight gets damaged at in early age. Many people are not aware of their eyesight until they feel any difficulty in their day-to-day life. Once people became blind, no therapy is much more effective to restore vision. Globally, approximately 250 million people suffer from varying degrees of vision loss. Therefore, obeying the rule of prevention is better than cure, people must have to take care of their own body health first. It can be achieved with the help of proper diet planning along with the controlled daily routine of life.

It has been proved that as much as 25% of all nutrients you take into your body goes to supporting your eyes and brain, therefore proper nutrition helps in maintaining the best vision and also prevents or delayed potentially vision-threatening conditions such as progressive myopia, early cataract, night blindness, dry eye, and corneal disease. Netra has always been given due importance as an *Indriya* or organ in *Ayurveda* from ancient times and *Netra Chikitsa* is as old as *Ayurveda* and forms a very critical branch of *Ayurveda*. According to *Vagbhatta* without eyes, the whole world will be dark, and life will be meaningless.² Therefore, our Acharyas wrote a lot about the eye, and all Acharyas described many types of eye ailments, along with their treatment. They all also described some *Ahaara* and *Vihara* which are healthy to the eye along with suggestions to avoid unhealthy

substances than can be known as *Netra Pathya Apathaya*.

AAHARA IS USEFUL FOR NETRA SWASTHYA, AS ADVISED BY ACHARYAS:

In *Ayurveda*, three *Upastambha* are described by our Acharyas namely *Ahara*, *Nidra*, and *Brahmacharya* among them *Ahara* has the greatest importance, as Acharya Sushruta said "*Praninam Punarmula Aaharo Bala Varna Ojasansh Cha*"³. The physical, mental as well as visual health depends upon the type of *Ahara* taken. Food substances that are healthy for the eyes are scattered at many points in all *Samhitas*. According to classical texts *Ghrut* especially *Go Ghrut*, *Dugdha* Specialty *Matra Dugdha* for neonates, *Patola*, *Godhum*, *Jeewanti Shak*, *Mung*, *Madhu*, *Mishri*, *Dadima Draksha*, *Jeerak*, *Dhanyak*, *Saindhav Lavana*, *Anwala*, *Haritaki*, *Baheda*, *Sweta Maricha*, *Shatavari*, *Ghrutkumari*, *Mulaiithi*, *Suwarna*, *Rajat*, *Moti*, *Pravala*, *Akik*, described as *Chakshusya Dravya*^{4,5}. Besides these, some viharas like *Pada Abhyanga*, *Pada Prakashalana*, and walking on the green grass are also indicated in the *Ayurveda* text.^{6,7}

- The maximum substance from the above has *Madhura Rasa*, *Madhura Vipaka*, *Sheeta Virya*, and *Sheeta Guna*, which all are considered *Chakshusya* properties.
- *Godhum* (wheat) contains Vit –A, C, and E, zinc, niacin, and antioxidants, and its fight-free radicle strengthens vision.
- *Patola* is rich in Vit C and A along with iron
- *Amalki* is the richest source of Vit c it also contains iron zinc and Vit –A
- *Haritaki* is having vit- C iron, magnesium, copper
- *Bibhitaki* has Vit –C flavonoids and anti-inflammatory substances.
- *Dadim* (pomegranate) contains ascorbic acid, citric acid, vit-C, flavonoids, antioxidant
- *Draksha* has Vit-E, zinc iron, and riboflavin
- *Dhanyak* contains vit A and C along with some minerals
- *Sweta Maricha* (*Shigru Beeja*) contains ca, ascorbic acid, cu, iron Vit A, B, C

- *Mulethi* having Vit. An antioxidant
- *Ghritkumari* is having Vit A, C, E
- *Stri Dugdha* having maximum no. of nutrients are required for the overall development of baby along with visual growth, therefore all our acharyas promoted it as *Chakashushya*.

Good nutrition during infancy and childhood maximizes eye and brain health in a way that may protect vision for a lifetime so according to the age of the child, diet planning should be done in a way that can promote visual growth along with overall.

ACCORDING TO MODERN MEDICINE:⁸

Babies' vision goes through many changes during their first year of life. A newborn's eye is about two-thirds (65%) of its full size, so the eye must undergo a series of changes that can take as long as a year. At birth, newborns see only vague shapes around them. Infancy and early childhood are periods of rapid eye development, with the sharpness of vision during its development which is generally almost completed before 6 years of age. Healthy vision plays a fundamental role in how infants and young children learn and perceive the world around them. Lutein, zeaxanthin, DHA, Vitamin A, and vitamin E are important nutrients for the healthy development of an infant's vision. During early life, infants obtain these essential nutrients through breastmilk.

Lutein and zeaxanthin are carotenoids, natural pigments found in colorful fruits and vegetables, such as green leafy vegetables, including spinach, kale, broccoli, and corn, and also found in egg yolks. Lutein and zeaxanthin are two nutrients that are particularly vital for eye and brain health.

Docosahexaenoic acid is another nutrient that plays a role in proper vision and brain health in children. DHA is the most abundant omega-3 fat in the brain and the eyes, underscoring its role in healthy visual development.

OCULAR MANIFESTATIONS OF NUTRITIONAL DEFICIENCIES:⁹

Nutritional deficiencies occur when a person's nutrient intake consistently falls below the recommended requirement. A lack of important nutritional food

substances which is required for the maintenance of visual health can lead to visual impairment such as-

- **Deficiency of vitamin A-** Ocular manifestations of vitamin-A deficiencies is referred to as xerophthalmia. The term xerophthalmia is now reserved to cover all the ocular manifestations of vitamin A deficiency (by a joint WHO and USAID Committee, 1976), including not only the structural changes affecting the conjunctiva, cornea, and occasionally retina but also the biophysical disorders of retinal rods and cones functions. It occurs either due to dietary deficiency of vitamin A or its defective absorption from the gut. It has long been recognized that vitamin A deficiency does not occur as an isolated problem but is almost invariably accompanied by protein-energy malnutrition (PEM) and infections.

A similar disease namely *Shuktika* has been described by our *Acharyas* and according to *Acharya Vagbhatta* in this condition, blackish or yellow dots appear on the white portion of the eye without pain and irritation, but the patient gets diarrhea, thirst, and fever. In this condition diarrhea explained by the acharya might act as a causative factor. Because it is practically observed that children suffering from xerophthalmia followed by melting of the cornea have a history of severe diarrhoea.

- **Deficiency of vitamin B1 (thiamine)-** It can cause corneal anesthesia, conjunctival and corneal dystrophy, and acute retrobulbar neuritis.
- **Deficiency of vitamin B2 (riboflavin)-** It can produce photophobia and a burning sensation in the eyes due to conjunctival irritation and vascularization of the cornea.
- **Deficiency of vitamin C-** It may be associated with hemorrhages in the conjunctiva, lids, anterior chamber, retina, and orbit. It also delays wound healing.
- **Deficiency of vitamin D. -** It may be associated with zonular cataracts, papilledema, and increased lacrimation.

YOGASANAS ARE BENEFICIAL TO THE CHILDREN'S EYES:

There are lots of yoga practices like *Halasana*, *Bal-asana*, *Padhasthasana*, and *Shirsasana* which are use-

ful for visual growth (structural as well as physiological growth), they provide a series of eye exercises that improve the functioning of the eyes and help to overcome various eye related problems such as short-sightedness and long-sightedness. Here is a basic guide to a few asanas that can we introduce to our children, and they can perform them easily.

- Palming
- Blinking
- Eye rotation
- Up down / side by side movement
- Focus switching
- Front and side view viewing
- Rotational viewing
- Preliminary nose tip viewing
- *Bhraamri pranayama*
- *Surya Namaskara*
- *Tratak, Neti*

They are all supposed to support the *Aalochaka Pitta* and improve vision and general health.

STATE-WISE FOOD HABITS WHICH EMPOWER THE VISION:

Every state in India has a different culture, traditional dress, food habits, dance, languages, etc. Food items that are healthy to their eye generally used in different states are.

- Gujrat - Groundnut, Dates
- Orisa - Jackfruit, Fish, Coconut
- Sikkim- Large Cardamom
- Chhattisgarh- Rice, Wheat
- Jharkhand - Rice, Shatavar
- Himachal Pradesh- Apple, shatavar, Aloe vera
- Karanatak – Sunflower, Raggi
- Assam - Green tea
- Bihar- Bitter gourd, Rice, Sugarcane
- Uttarakhand – Aloe vera,
- Andhra Pradesh- Groundnut, banana, cashew nut
- Tamil Nādu- coconut, banana, cashew
- Jammu and Kashmir – Apple, almonds
- Rajasthan- Ghee, mango, barley
- Punjab- milk, Maize, carrot, pulses
- Haryana- milk, carrot jowar, bajra
- M.P.- Milk, Amalaki, spinach

- U.P.- Sugarcane, linseed, Mushroom
- Maharashtra – sugarcane, Sunflower
- west Bengal- Fish, Betal
- Kerala- Rice, Coconut, banana

DISCUSSION

People with good nutrition are healthier and more productive than poor nutritioned people. It is an essential part of healthy development as well as eye development and maintenance of healthy vision. Good nutrition lowers the risk of non-communicable disease diabetes therefore diabetic retinopathy, ARMD, etc. Every food we consume contains important nutrition like proteins (maintaining a healthy retina), carbohydrates, vitamins (vitamins C and E might help ward of age-related vision problems like macular degeneration and cataract) etc¹⁰. Nutritional intake particularly breastfeeding during the infantile period is considered to influence visual development and eye growth. For breastfed babies' colostrum and breast milk are rich sources of lutein and zeaxanthin, With the concentration in breast milk proportional to a mother's intake of these nutrients Lutein and zeaxanthin serve as filters of blue light, a type of light that has the potential to damage eyes.

Other than *Ahara* some other *Ayurvedic* practices improve eye health such as *Kriyakalpas* (in which topical drug administration is given. In these procedures tissue and drug contact timing can be controlled), *Padaabhyanga*, *padprakashana*, *padatra dharana* (they can improve the eyesight), *Yogasana*, *Chakshushya Rasayana* (it is beneficial for healthy and diseased individuals both), "20-20-20 rule" (to reduce eye strain every 20 minutes, look about 20 feet in front. of you for 20 seconds. This is mainly useful for those, who are doing near work, like working on a computer system, mobile, reading or other fine work), *Swarnaprasana* (Swarna have *Chakshushya* properties according to our *Acharyas* and for the kids, it is very convenient to provide them in the form of *Lehana* i.e., *Swarnaprasana*), it improves Immunity and prevents from recurrent cold, cough, fever, and other respiratory infections. As it is an immunity booster and has antioxidant properties

along with rejuvenating power so it can protect and improves the vision also.

On contrarily to healthier things some *Aahara* and *Vihara* are also advised by our *Acharyas* which are unhealthy to our eyes are, *Katu Taila*, *Fanita*, *Vesvara*, *Ernala*, *Katu Ushna Guru Annapana*, *Samudra Lavana*, *Patra Shakam*, *Kalinga*, *Ati Ambupana*, *Krodha*, *Diva Swapna*, *Maithuna*, *Ratri Jagarana*, *Vega Dharana*, *Prajalpana* (excessive talk), etc.¹¹ Diabetes, high Cholesterol, high blood pressure all can cause visual problems. Smoking greatly increases the risk of eye diseases including glaucoma (damage to the eyes' optic nerve), cataracts (clouding of the eye), and dry eye syndrome. Besides this excessive use of smart phones, T.V., sleep deprivation, eye rubbing, and improper diet can also lead to visual impairment.¹²

CONCLUSION

Our eyes are the most sensitive sensory organs. Knowingly or unknowingly, we cause great damage to our eyes, every day, inside out. An unhealthy life-style can cause numerous problems to us; however, the first impact is visible only to our eyes. For this, we have to adopt some preventable measures in our daily routine for eye health. We can store proper vision for a long time with help of proper nutritional diet intake. We can also take care of our vision with proper eye exercises, *Kriyakalpas*, *Panchkarma*, therapy, *Chakshushya Rasayana*, *Yoga*, *Vihara*, *Sadvritta*, *Pada Abhyanaga*, *Shiro Abhyanaga*, etc. Diseases of the eye affect psychological as well as developmental factors, hence affecting the quality of life that is why *Netra Swasthya* is very important, and therefore a programme namely the National Prophylaxis Programme Against Nutritional Blindness was started in India which is a centrally sponsored scheme, and all children between ages of one to three years were to be administered 200,000 IU of Vit –A

orally once in a six month, because Vit –A deficiency (type of nutritional deficiency) is the major cause of blindness or severe visual impairment (SVI).

REFERENCES

1. https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6771137/&ved=2ahUKEwisrdubo4n5AhWe8DgGHTUrDgUQFnoECBoQAQ&usg=AOvVaw3Q5iCCw7_PzYmD67mBP5-Y
1. Tripathi Brahmanand, Ashtang Hrudayam, of Vagbhatta, Uttar shana 13/98, hindi commentary Chaukhambha Sanskrit pratishthan, New Delhi, Reprint 2014:P- 977
2. Shastri Ambikadutta, Sushruta Samhita, Ayurveda Tattva Sandipika Hindi commentary, Sutra Sthana 1/36, Chaukhambha Sanskrit Sansthan Varanasi. Reprint 2002:P- 4
3. Shashtri Kashinath, Charak Samhita, Vidyotini Hindi Commentary, Sutra Sthana, Chaukhamba Sanskrit Pratishthan, Reprint-2016 chapter 27
4. Shastri Ambikadutta, Sushruta Samhita, Ayurveda Tattva Sandipika Hindi commentary, Sutra Sthana, Chaukhambha Sanskrit Sansthan Varanasi. Reprint 2002: Chapter 45,46
5. Shashtri Kashinath, Charak Samhita, Vidyotini Hindi Commentary, Sutra Sthana, Chaukhamba Sanskrit Pratishthan, Reprint-2016 chapter 05
6. Shastri Ambikadutta, Sushruta Samhita, Ayurveda Tattva Sandipika Hindi commentary, Chikitsa Sthana, Chaukhambha Sanskrit Sansthan Varanasi. Reprint 2002: chapter 24
7. <https://www.aoa.org/healthy-eyes/caring-for-your-eyes/diet-and-nutrition>
8. Khurana A.K., Khurana I: Anatomy and Physiology of Eye;6thed. (2015), CBS Publishers and Distributors, New Delhi. 434,435
9. <https://www.google.com/url?sa=t&source=web&rct=j&url=https://www.aoa.org/eye-health/tips-prevention/diet-nutrition&ved=2ahUKEwisrdubo4n5AhWe8DgGHTUrDgUQFnoECBkQAQ&usg=AOvVaw2I8PtdOINorcKB8JHEcTi>
10. Vaidya Lakshmiapati Sastri, Yogratnakar, Vidyotini Hindi Commentary, Pathyaapathya vidhi, *Netrarogadhikar*1-2, Chaukhambha Sanskrit Series Office, Varanasi. Second edition: P-288
11. [https://www.google.com/url?sa=t&source=web&rct=j&url=https://isightinfo.com/5-unhealthy-habits-that-affect-your-vision/%23:-:text%3DSmoking%2520greatly%2520increases%2520your%2520risk,macular%2520degeneration%2520\(vision%2520loss\).&ved=2ahUKEwiU1Matqqr5AhWaN4KHc-ICMEQFnoE-CAkQBQ&usg=AOvVaw3nxKeNdgB8zSKyz3CINZ3u](https://www.google.com/url?sa=t&source=web&rct=j&url=https://isightinfo.com/5-unhealthy-habits-that-affect-your-vision/%23:-:text%3DSmoking%2520greatly%2520increases%2520your%2520risk,macular%2520degeneration%2520(vision%2520loss).&ved=2ahUKEwiU1Matqqr5AhWaN4KHc-ICMEQFnoE-CAkQBQ&usg=AOvVaw3nxKeNdgB8zSKyz3CINZ3u)

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