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IMPORTANCE OF AYURVEDA IN PREVENTIVE OPHTHALMIC PRACTICES

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ABSTRACT

Introduction: There are 5 special sensory organs, particularly the eye, ear, nose, tongue, and skin. Among these sense organs, the eye became considered in the first place. Ayurveda gives utmost importance to the attention and the quote says "Sarvendriyaanam Nayanam Pradhanam". **Material & Methods:** The converting work call for in recent times leads to long working hours in the front of computer systems; an environmental circumstance, mental stress, blended use of ophthalmic topical medications, multiplied prevalence of allergic problems, etc. result in eye illnesses. In this fast-paced and advanced world, we rarely pay attention to the health of our most precious organthe "Eyes." Therefore, to have healthy eyes, healthy foods which are known for retaining healthful eyes may be very useful. **Result:** Healthy and unhealthy dietetics are promoted as high-end measures for the maintenance of eye health. These healthy and healing foods can be practiced in everyday life to prevent lifestyle-related eye disorders. **Discussion:** The article delves into *Ayurvedic* perspectives of healthy foods which help maintain eye health in ophthalmic practice.

Keywords: Healing foods, healthy eyes, *Ayurvedic* ophthalmic practice.

INTRODUCTION

Everyone now a days is rushing for life goals, living little time to think about and working towards a healthy lifestyle, and is unable to follow proper dietary rules and regulations which are probably responsible not only for the increased incidence of earlier exiting ailments but led to many new diseases including eye disorders such as computer vision syndrome, age-related macular degeneration, dry eyes, etc. So, it is very important to live a healthy life by paying attention to the rules of a proper lifestyle in terms of a healthy diet and foods. "Let thy medicine be thy food and Thy food be thy medicine", Hippocrates said over 2500 years ago.

Role of Healthy Food & Diet for Normal Functioning of Eyes

The diet we take and the routine exercises we follow have an effect on the body, according to Agni (the metabolic fire). The concept of *Agni* in Ayurveda can be considered as the metabolism which takes place at the

tissue, molecular and cellular levels. Unhealthy diets and practices destruct metabolism, resulting in lower-quality byproducts that enter the bloodstream and reach the eye and altered the normal anatomical structure and physiological functioning of the eyes. So, it is very important to take healthy foods and avoid unhealthy foods and regimens.

Diet and Nutrition in Preventive Ocular Primary Care

The most common reason for the visit to an ophthal-mologist is related to vision. In Ayurveda and other Vedic literatures, we may find a comprehensive list of therapies and food supplements recommended by ancient scholars for protecting vision conditions such as Diabetic Retinopathy, ARMD, Computer vision syndrome, Glaucoma, or dry eyes. Preventing Vitamin, A deficiency in children is crucial for sustaining night vision, and *Pathya Chakshushya Aahara* is the best way to do it.

Table 1: Chakshushya Food and Regimens Mentioned by Acharyas

DIET AND NUTRITION		
Recommended (Pathya)	Not Recommended (Apathya)	
Yava (barley), Godhooma (wheat),	Sour items like curd, pickles etc ¹	
Lohitsali (red rice), Mudga (green gram)	Virudha Aharam	
the meat of animals of Jangala Desha	Madhuka Pushpa, Dadhi, Patrashaka,	
Dadima (pomegranate), Sita (sugar),	Kalinga, Pinyaka, Virudha Dhanya,	
Saindhava (rock salt), Triphala	Matsaya, Sura,	
Draksha (grapes), Ghritapana, ²	Mamsa except Jangala Mamsa,	
Mudga, Yava, Kombha Ghrita,	Tamboola sevana, Amla Dravya, Lavana, ³	
Kulattha Yusha, Peya, Vilepi, Surankanda,	Intake of excessive Masha (udad dal),	
Patola Shaka, Vartaka, Karkotaka,	Aarnal (kanji), Katu Taila, Fanita, Veshvar ⁴	
Karvellaka, Unripe Mocha, Balamulaka,		
Punarnava Shaka, Bhrigraja Shaka, Makoya		
Shaka, Patoor Shaka,		
Ghritakumari (Alovera), Draksha, Dhniya,		
Sandhiva Lavana, Lodhra, Triphala, Madhu,		
Nari Dugdh, Chandana, Kapoor ⁵		

S. NO.	Food Category	Relative example
1.	Whole Grains	Rye/Oat/Barley/Millet/Wheat/Corn
2.	Edible seeds	Buckwheat/sesame/sunflower/pumpkin/amaranth (Rajgeera)
3.	Beans	Red kidney beans/red lentil/soy
4.	Leafy greens	Parsley/cabbage/broccoli
5.	Fruits	Cherries/grapes/apples/pears/plums/apricot/strawbeery/raspberry/black berry
6.	Olive oils & seed oils	
7.	Garlic/onions and their	
	relatives like leeks/chives	

Table 2: Commonly Used food for maintaining healthy eyes in ophthalmic practice

Aahara Shadrasas (6 flavors), Triphala, and Ghrita are some common examples of natural remedies that can be used to avoid eye disorders.

Role of Shadrasas -

The idea of *Shadrasas* is the most essential among them since all six tastes, sweet, sour, salty, bitter, pungent, and astringent, have an influence on the eyes, according to Ayurveda. Both physical and mental changes can be observed after the intake of different types of food.

- Sweet taste builds tissue, calms nerves, and improves the clarity of the sense organs. eg, Honey, wheat, milk fruits, etc.⁶
- Sour taste cleanses tissue and increases absorption of minerals and strengthens all sense organs. Improper use of the sour taste causes constriction of the eyes and blurring of vision. e.g. - over usage of lime, lemon, vinegar, etc.⁷
- In Salty taste *Saindhava* (rock salt) is best for the eyes, overuse of the normal salt can cause loss of strength of the sense organs, wrinkles, and water retention causing edema. e.g., sea salt.⁸
- Pungent (*Katu*) taste is good for the cleansing of the eyes as it is increasing the watering of eyes if consumed directly, elated all sense organs, but over usage can cause inflammation e.g., red chili, garlic, etc.⁹
- Bitter (*Tikta*) taste detoxifies and lightens tissues, pacifies *Vata* but it is the least practiced taste now a days, e.g., bitter guard.¹⁰
- Astringent taste is more cooling and is blood purifying. e. g. chickpeas, okra. 11

Therefore, to maintain good eye health, a balanced combination of all of these *Rasas* (flavors) in the diet

is very essential. Improper or excessive use of these *Rasas*, particularly sour and salty, is one of the primary causes of eye illnesses in today's world.

Role of Ghrita -

- Ghee is a potent medicine as well as food material, which is targeting on strengthens three main organs. Heart, brain, and the eyes.
- The chemical analysis of ghee shows good quality unsaturated fat which helps in the *Poshana* of *Sapta Dhatu* and nourishment of neurons of the brain preventing ocular neurodegenerative diseases. *Ghrita Manda* (upper portion of ghee) which always remains in a liquid state is rich in unsaturated fatty acids, esp. omega-3 and omega-4, which are essential for vision.
- For example, ghee with *Triphala* enhances vision, and ghee with *Bhrami* enhances memory.

Role of Triphala:

Triphala is a drug consisting of Terminalia chebula, Terminalia bellerica, and Emblica officinal in equal quantity.

- Taking the individual qualities *Terminalia chebula*is having the property of cleansing the micro and
 macro channels, pacifying all *Doshas*, and is having an anti-aging property so, it is advisable in Agerelated macular degeneration, Senile cataract, Retinal degeneration, etc.
- Terminalia bellerica is the best homeostatic.
- *Emblica officinalis* is a powerful antioxidant and prevents ageing and degeneration.

- Regular eye washes with *Triphala* and *Yashtimadhu kwath* with the use of an eye wash cup are also beneficial for eye health.
- Considering honey as *Chakshushya* most of the compounds like Flavonoids, phenolic acids, ascorbic acid, tocopherols, catalase, amino acids, vitamins B1 B2, and B6, minerals, and enzymes work together to give a synergistic, antioxidant, antibacterial, and anti-inflammatory effects.

Herbomineral Drugs Use in Ophthalmic Practice:

- Amalki (Emblica Officinalis)
- Gokshura (Tribulus Terrestris)
- Yashtimadhu (Glycyrrhiza Glabra)
- Guduchi (Tinospora Cordifolia)
- Aswagandha (Withania Somnifera)
- Shilajatu (Asphaltum)
- Mandukaparni (Centella Asiatica)
- Dugdhika (Euphorbia hirta)
- Jyotishmati (Celastrus paniculatus)
- Akarkara (Anacyclus Pyrethrum)
- Vacha (Acorus Calamus)
- Gandir (Coleus forskohlii)
- Kapikachu (Mucuna pruriens)
- MuktaShukti bhasma
- SwarnaMakshika bhasma
- Abhraka bhasma

3.5 Components of Foods that are Healers in Ophthalmic Practice-

Eating a diet low in fat and rich in fruits, vegetables, and whole grains can help not only our hearts but also our eyes. Our eyes rely on tiny arteries for oxygen and nutrients, just as the heart relies on much larger arteries. Keeping those arteries healthy will help our eyes.

> Phytochemicals (Phytoguards)

Antioxidants- Vitamin- A

Vitamin- C

Vitamin – E

> Phyto Estrogens-

Vitamin-B complex

Trace elements like

- Zinc
- Salinium

Carotenoids and other pigments in the foods

- Lycopene
- Lutein
- Xanthene
- > Direct or Indirect Hypolipidaemic foods
- Garlic/Onions
- Soluble fibers- Lignans, Pectin
- Gums- Guargum, Acaciagum
- Calcium and Iron

Vitamin A-

Perhaps the best-known eye-healthy nutrient is <u>vitamin A</u>. Our <u>retina</u> needs plenty of vitamin A to help turn light rays into the images we see. Also, without enough vitamin A, our eyes can't stay moist enough to prevent <u>dry eyes</u>.

Sources of vitamin A-

Carrots are a well-known source of vitamin A.

Sweet potatoes provide even more vitamin A.

Fruits, including **cantaloupe** and **apricots**, can be a good source of vitamin A.

Vitamin C-

Vitamin C is critical to eye health. As an antioxidant, vitamin C helps protect the body from damage caused by some things we eat, unhealthy habits, and environmental factors. Fried foods, tobacco smoke, and the sun's rays can produce free radicals--molecules that can damage and kill cells. Vitamin C helps repair and grow new tissue cells.

Sources of vitamin C-

Citrus fruits, such as **oranges**, **tangerines**, **grapefruit**, and **lemons**. Lots of other foods offer vitamin C, including **peaches**, **red bell peppers**, **tomatoes**, and **strawberries**. Antioxidants can prevent or at least delay <u>age-related macular degeneration (AMD)</u> and <u>cataracts</u>, according to the <u>Age-Related Eye Diseases Study</u> (AREDS).

Vitamin E

Another important antioxidant is vitamin E, which helps keep cells healthy. Vitamin E can be found in **avocados**, **almonds**, and **sunflower seeds**.

Lutein and zeaxanthin-

<u>Lutein and zeaxanthin</u> are antioxidants found in the pigments of leafy green vegetables and other brightly colored foods. They are key to protecting the <u>macula</u>, the area of the eye that gives us our central, most

detailed vision. **Kale** and **spinach** have plenty of these nutrients. Other foods with useful amounts of lutein and zeaxanthin include **romaine lettuce**, **collards**, **turnip greens**, **broccoli**, and **peas**.

Beans and zinc

The mineral zinc helps keep the retina healthy and may protect our eyes from the <u>damaging effects of light</u>. However, zinc can lower the amount of copper in our body, which we need to help form red blood cells. Fortunately, we can increase both at once with all kinds of beans (legumes), including **black-eyed peas**, **kidney beans**, and **lima beans**. Other foods high in zinc include **oysters**, **lean red meat**, **poultry**, and **fortified cereals**.

Preventive Approach

Diet exclusively for *Timira* (any eye disease with the blurring of vision) has been explained by Acharya Consisting of:

- Triphala kashaya with ghee 12
- Cakes made with *Triphala* as an ingredient, Dessert made with *Triphala*, and milk with sugar and honey¹³.
- It is advised to take *Terminalia Bellerica* powder along with any black grapes, sugar, or honey daily.
- The dietary protein, vitamin A, Vitamin B, niacin, riboflavin, and thiamine in cow's milk appears to be protective against nuclear and cortical cataract.
- Ayurveda Acharyas have highlighted the importance of breast milk as the best drug for eye protection and ocular disorders. Hereast milk contains lots of lutein and zeaxanthin, which are necessary for the maturation of fovea based on metabolic effects. It can prevent eye-disorders in neonatal and pediatric age groups.
- The intake of fruits like Black Grapes, Pomegranate, banana, etc., and the vegetables like gooseberry, bitter gourd, snake gourd, elephant yam, green carrot, radish, small brinjal, etc., rich in vitamin A has an effect on the decreased risk of eye diseases.
- In a cross-sectional investigation, a decreased risk of glaucoma was observed in the intake of veggies and fruits, especially carrots.

- A clinical trial conducted in animals showed that topically and internally used Omega 3 and 6 fatty acids (e.g., *Ghrita Manda*) have a good effect on dry eye syndrome due to their anti-inflammatory effects.
- So, following *Chakshushya* food and practices may help in reducing the susceptibility to getting eye diseases.

DISCUSSION

This beautiful world is of no use for a blind, however healthy he may be because day and night are the same for him. So, one should always strive hard to preserve his vision life-long. Pathya-Apathya has a major supportive role in the management of diseases. There is a misunderstanding about the concept of the term Pathya. Pathya is not only the advice that is given in a diseased person but also the ignored part that may be advised in a healthy person too. Pathya means to belong to the method which suitable, fit or proper, healthy, beneficial, and especially diet in medical science¹⁵. Ahara and Vihara which do not harm the body and the channels of the body and help the whole body are called Pathya¹⁶ 17. The beneficial Ahara and Viharas that delight the mind are known as Pathya¹⁸. It is said that the diet and regimes that are incompatible with these traits are Apathya¹⁹. It is the Pathya that restores the normality of the vitiated dosha and the Apathya is the one that causes the deviation and deformation of the *Dosha*²⁰. A healthy diet is important for maintaining eye health and may lower our chance of getting eye disorders. Antioxidants rich means, which contain a variety of vitamins, nutrients, and minerals, may help to prevent serious eye diseases. To stay healthy our eyes required a variety of antioxidants. It may help reduce our risk of developing eye conditions. Eye conditions that we may be able to prevent with a healthy diet include:

- · cataracts, which cause cloudy vision
- age-related macular degeneration, which can limit your eyesight
- glaucoma
- dry eyes
- poor night vision

These antioxidants ward off oxidants that can affect our health in negative ways. Our eyes need many types of antioxidants to stay healthy. These include:

- lutein
- zeaxanthin
- vitamins A, C, E
- beta-carotene
- omega-3 fatty acids
- zinc
- Some evidence shows that dietary antioxidant vitamins and minerals (A, C, and E, and the mineral zinc) may help prevent the progression of macular degeneration. "The retina, especially the macula, is thought to be an environment of high oxidative stress, meaning that there is an abundance of free radicals—molecules that damage proteins and DNA within cells. Antioxidants fight free radicals and are thought to help protect the retina from this damage,"
- Lutein and zeaxanthin are carotenoids found in the retina, and dietary intake of these compounds has been shown to have antioxidant properties and to improve pigment density in the macula. This pigment protects the cells in the macular area by absorbing excess blue and ultraviolet light and neutralizing free radicals. Lutein and zeaxanthin are usually found together in food.

CONCLUSION

Each nutrient/herb plays a specific role in the normal physiological functioning of the eyes. A healthy diet is very essential for maintaining eye health. Antioxidants rich diet will help to prevent major eye diseases and ensure that your eye performs at its best. On the daily basis, try to eat a variety of all, unprocessed foods.

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