

The Role of Nutrition in Eye Health: Foods That Support Ocular Wellness.

Omdal Fischer*

Department of Glaucoma Clinic, University of Canberra, Australia

Introduction

Our eyes are marvels of complexity, enabling us to experience the world in vibrant detail. As with any intricate system, maintaining optimal eye health requires a combination of factors, with nutrition playing a crucial role. A well-balanced diet rich in specific nutrients can contribute to the prevention of various eye conditions and support overall ocular wellness. This article explores the key nutrients essential for eye health and highlights foods that promote and sustain the well-being of our eyes [1].

Vitamin A: This vitamin is vital for maintaining the health of the cornea, the transparent front part of the eye. It also plays a role in low-light vision. Foods rich in vitamin A include sweet potatoes, carrots, spinach, kale, and eggs. **Lutein and Zeaxanthin:** These are carotenoids that accumulate in the retina and help protect the eyes from harmful high-energy light waves like ultraviolet rays. They are found in green leafy vegetables such as spinach, kale, and broccoli, as well as in egg yolks [2].

Vitamin C: Known for its immune-boosting properties, vitamin C also supports blood vessels in the eyes and prevents the formation of cataracts. Citrus fruits, strawberries, bell peppers, and guava are excellent sources of vitamin C. **Vitamin E:** An antioxidant that helps protect cells, including those in the eyes, from damage caused by free radicals. Nuts, seeds, spinach, and fortified cereals are good sources of vitamin E [3].

Omega-3 Fatty Acids: These essential fatty acids contribute to the health of the retina and may help prevent dry eyes. Fatty fish like salmon, mackerel, and trout, as well as flaxseeds and walnuts, are rich sources of omega-3s. **Zinc:** This mineral is crucial for the function of enzymes in the eye. It is found in abundance in foods like meat, dairy products, nuts, and legumes. **Copper:** Working in conjunction with zinc, copper helps maintain the health of the optic nerve. It is present in foods like seafood, nuts, seeds, and whole grains [4].

Bioflavonoids: These compounds help protect the eyes from oxidative stress. Citrus fruits, berries, tea, and red wine are sources of bioflavonoids. **Leafy Greens:** Spinach, Kale, and Swiss Chard: Rich in lutein and zeaxanthin, these leafy greens contribute to the prevention of age-related macular degeneration (AMD) and cataracts. Carrots and Sweet

Potatoes: Packed with beta-carotene, a precursor of vitamin A, these vegetables support night vision and overall eye health [5].

Citrus Fruits: Oranges, Grapefruits, and Lemons: High in vitamin C, citrus fruits help maintain the blood vessels in the eyes and may reduce the risk of cataracts. **Berries:** Blueberries, Strawberries, and Blackberries: Rich in antioxidants and bioflavonoids, berries contribute to the prevention of age-related eye conditions. **Fatty Fish:** Salmon, Mackerel, and Trout: Excellent sources of omega-3 fatty acids, these fish support the health of the retina and may reduce the risk of dry eyes and AMD [6].

Nuts and Seeds: Almonds, Walnuts, and Flaxseeds: Providing vitamin E and omega-3 fatty acids, nuts and seeds are essential for maintaining the overall health of the eyes. **Eggs:** Yolk: Contains lutein and zeaxanthin, promoting eye health. Eggs are also a good source of vitamin A. **Bell Peppers:** Red and Orange Bell Peppers: High in vitamin C, these colorful vegetables contribute to the prevention of cataracts and support overall eye health [7].

Shellfish: Oysters and Crab: Rich in zinc, shellfish plays a crucial role in maintaining the health of enzymes in the eyes. **Whole Grains:** Quinoa, Brown Rice, and Whole Wheat: Providing zinc and copper, whole grains support the optic nerve's health and overall eye function. Antioxidants are compounds that help neutralize free radicals, unstable molecules that can damage cells in the body, including those in the eyes. The eyes are particularly susceptible to oxidative stress due to constant exposure to light and oxygen [8].

By incorporating antioxidant-rich foods into your diet, you can provide essential protection for your eyes. **Diversify Your Plate:** Consume a variety of colourful fruits and vegetables to ensure a broad spectrum of nutrients that contribute to eye health. **Balance Omega-3 and Omega-6 Fatty Acids:** While omega-3 fatty acids are beneficial for eye health, maintaining a balance with omega-6 fatty acids is essential. Limit the intake of processed and fried foods, which are high in omega-6 [9].

Proper hydration is essential for maintaining the mucous membranes that cover the eyes. Drink an adequate amount of water throughout the day. **Consider Dietary Supplements:** If it's challenging to meet your nutritional needs through diet alone, consider supplements after consulting with a healthcare professional [10].

*Correspondence to: Omdal Fischer, Department of Glaucoma Clinic, University of Canberra, Australia, E- mail: fischerom@canberra.edu.in

Received: 23-Nov-2023, Manuscript No. OER-23-120888; Editor assigned: 24-Nov-2023, Pre QC No. OER-23-120888 (PQ); Reviewed: 11-Dec-2023, QC No. OER-23-120888;

Revised: 18-Dec-2023, Manuscript No. OER-23-120888 (R); Published: 27-Dec-2023, DOI: 10.35841/oer-7.6.183

Conclusion

Understanding the role of nutrition in eye health empowers individuals to make informed dietary choices that contribute to long-term ocular wellness. By incorporating a diverse range of nutrient-rich foods, rich in vitamins, minerals, and antioxidants, you provide your eyes with the essential tools they need to resist age-related conditions and maintain optimal function. As you savour the vibrant colours and flavours of a well-balanced diet, you're not just pleasing your palate; you're nurturing the intricate and invaluable gift of sight.

References

1. Valero-Vello M, Peris-Martínez C, García-Medina JJ, et al. Searching for the antioxidant, anti-inflammatory, and neuroprotective potential of natural food and nutritional supplements for ocular health in the mediterranean population. *Foods*. 2021;10(6):1231.
2. Rasmussen HM, Johnson EJ. Nutrients for the aging eye. *Clin Interv Aging*. 2013;741-8.
3. Chew EY. Nutrition effects on ocular diseases in the aging eye. *Invest Ophthalmol Vis Sci*. 2013;54(14):ORSF42-7.
4. Gilbert R, Rawlings A, Dixon M. Eating for eye health: engaging patients with dry age-related macular degeneration in community cookery to support lifestyle change and positive health. *Research*. 2019;3(2):129-41.
5. Bunce GE. Nutrition and eye disease of the elderly. *J Nutr Biochem*. 1994;5(2):66-77.
6. Martinez A, Pizzimenti JJ, Lem DW. Health Promotion for AMD and the Role of Nutrition. *IntechOpen*. 2022.
7. Arora S, Kurji AK, Tennant MT. Dismantling sociocultural barriers to eye care with tele-ophthalmology: lessons from an Alberta Cree community. *J Clin Invest*. 2013:E57-63.
8. Sandra Young OD, Coutts AM. *Visionary Kitchen: A Cookbook for Eye Health*. Gatekeeper Press. 2018.
9. Shahid K, Kolomeyer AM, Nayak NV, et al. Ocular telehealth screenings in an urban community. *Telemed J E Health*. 2012;18(2):95-100.
10. Johnson-Griggs MA, Hicks PM, Lu MC, et al. Relationship between Unstable Housing, Food Insecurity, and Vision Status in the MI-SIGHT Community Eye Disease Screening Program. *Ophthalmology*. 2023.