Nutritional Support Protocol

Support for Eye Health

Developed and reviewed by the clinical, chiropractic, and naturopathic members of the Standard Process team

Eye Health and Function

Good eye health is key to patient well-being and promotes autonomy, safety, productivity, and quality of life. Vision begins when light enters through the cornea and pupil, passes through the lens, and is focused onto the retina, where photoreceptor cells convert light into electrical signals. These signals are transmitted via the optic nerve to the brain for interpretation.

The eye has limited but effective repair mechanisms. The avascular cornea heals quickly from minor abrasions through rapid epithelial cell regeneration. The tear film helps protect and nourish the eye surface which promotes healing. The retina and lens are at risk of damage from processes like chronic oxidative stress and inflammation, closely related mechanisms that impact eye tissue.

The eye is particularly vulnerable to these processes due to continuous exposure to light, a high metabolic rate, high lipid content, immune privilege, and limited regeneration capacity. Oxidative stress and inflammation are implicated in the development and progression of age-related macular degeneration, cataracts, glaucoma, and diabetic retinopathy. Reactive oxygen species can denature proteins and DNA while causing lipid peroxidation in the lens and retina. Protein clumping in the lens, due to oxidative damage, reduces transparency, and impairs vision. UV exposure, smoking, pollution, and conditions like hypertension and diabetes can promote oxidative and inflammatory processes that impact the eyes.

Lifestyle and nutritional interventions can attenuate oxidative stress, support ocular blood flow, and promote systemic metabolic and cardiovascular health to help protect eye health and vision.

Supportive Lifestyle Practices

- Advise patients to protect their eyes with UVA and UVB-blocking eyewear, as these lenses filter harmful rays that cause photochemical damage to the cornea, retina, and macula. Excessive UV exposure has been found to create oxidative damage in the eye.[1]
- Recommend the 20-20-20 rule to reduce screen-induced eye strain: every 20 minutes, take a 20-second break to look at an object 20 feet away. Screen use significantly reduces blink rate from 15-20 times per minute to 4-6 times per minute, negatively impacting tear film quality.[2]

Whole Foods Nutritional Recommendations

- Recommend foods rich in omega-3 fatty acids DHA and EPA such as salmon, sardines, and cod liver. These fatty acids support tear film stability, neutralize free radicals and protect the retinal cell membranes from oxidative stress. DHA also supports photoreceptor cell function and the structural integrity of the retina.[3]
- Suggest that patients incorporate buckwheat into their diet. Tartary buckwheat is a good source of flavonoids like rutin and quercetin, which can support ocular blood flow and capillary health in the eyes and modulate oxidative stress that can impact the retina and other sensitive eye tissues.[4-6]
- Emphasize consumption of foods rich in preformed Vitamin A including eggs, dairy, and liver. Vitamin A supports the proper function of the tear glands, maintains the integrity of the cornea, and modulates oxidative stress.[7]

Dietary Supplement Regimen

Eyeplex™

Suggested Use: **Two capsules per meal**

Eyeplex™ supports ocular health.*

- Supports normal eye function*
- Contains a combination of key ingredients from Cataplex® A-C, Cataplex® B_2, Cyruta®, Ostrophin PMG®, Phosfood® Liquid, and Oculotrophin PMG®
- Excellent source of riboflavin and niacin
- Good source of vitamin B6 and antioxidant vitamin A

OPC Synergy®

Suggested Use: **1 capsule per day**

OPC Synergy® provides a synergistic blend that exhibits antioxidant activity and supports cell functioning.*

- Supports eye health*
- Provides ingredients with antioxidant activity*
- Maintains capillary integrity*

Cod Liver Oil

Suggested Use: **3 softgels per day**

Cod Liver Oil supports healthy skin and eyes.*

- Contains the omega-3 fatty acids, DHA and EPA
- Supports healthy inflammatory processes*
- Excellent source of antioxidant vitamin A
- Good source of vitamin D

Bilberry Forte

Suggested Use: **1 capsule twice daily**

Bilberry Forte, a bilberry supplement, contains a highly concentrated extract of Bilberry fruit with anthocyanosides to support eye health.*

Bilberry is used to:

- Maintain healthy eyes*
- Provide antioxidant activity*
- Promote vascular integrity*
- Help maintain health of capillaries*

Assessment of Eye Health

In Office/Physical Exam

- Assess blood pressure
- Comprehensive yearly eye examination
- Labs: Comprehensive metabolic panel (CMP), hs-CRP, fasting insulin, HbA1c, thyroid panel
- Signs/symptoms like dry eyes, excessive tearing, redness, blurred vision, pain, light sensitivity
- History of diabetes, hypertension, thyroid disease, migraine, allergies
- Referral for ophthalmologic care as needed

REFERENCES

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2. Lapa I., et al. (2023). Int J Environ Res Public Health. 20(5):4569
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4. Luthar, Z., et al. (2021). Plants (Basel, Switzerland), 10(4), 700.
5. Ganeshpurkar, A., & Saluja, A. K. (2017). Saudi pharmaceutical journal, 25(2), 149–164.
6. Zhao, L., et al. (2021). Biomed pharmacother 137, 111371.
7. Alam, J. et al. (2021). Int J Mol Sci. 22(3):1092.

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*These statements have not been evaluated by the Food and Drug Administration. These products are not intended to diagnose, treat, cure, or prevent any disease.

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