



Guide to Eye Health

Diet, lifestyle, environment, and aging have a profound effect on vision. Aside from aging, you can modify these risk factors. By making eye-healthy choices, you can reduce the severity or rate of progression of a vision affliction.

You should seek advice from and schedule regular, annual examinations with your eye care specialist, more often if you are experiencing diminished vision.

Much of the following information is based on studies supported by Research to Prevent Blindness (RPB).

Nutrition and Sight

A diet that includes colorful fruits and vegetables, dark leafy greens, nuts, frequent servings of fatty, cold-water fish and foods low on the glycemic index is a foundation for healthy vision. The glycemic index ranks foods according to how quickly they raise blood sugar levels.

Antioxidants prevent or slow oxidative damage that occurs as our bodies use oxygen to produce energy. Lutein and zeaxanthin (from dark leafy greens, colorful fruits and vegetables, egg yolks or supplements) may protect against **age-related macular degeneration (AMD)** and have been associated with decreased prevalence of **cataract** in older women. Zeaxanthin, lipoic acid and curcumin (found in turmeric, a spice used in curries) may prevent or inhibit the progression of **diabetic retinopathy**.

Vitamin D (from milk, fish and exposure to the sun) may protect against early **AMD**. Zinc supplements with copper have protective effects in patients with advanced **AMD**. Vitamins A, B1, B2, and B3 may protect against **cataract**. In women 65 and older, higher intake of foods rich in vitamins A, B2 and C are associated with a decreased risk of **glaucoma**.

Sight Saving Sampler

Vegetables Corn, spinach, collards, kale, orange pepper, carrots, zucchini.



Fruits Blueberries, kiwi fruit, grapes, avocados, orange juice.

Fish Salmon, herring, sardines, mackerel, lake trout, tuna.



Nuts Walnuts, Brazil nuts, butternuts, hickory nuts, macadamia nuts, peanuts, almonds, hazelnuts.*

Dietary Supplements

Vitamins A, B1, B2, B3, C, D and E, as well as the minerals zinc and copper.



*Nuts are one of the best plant-based sources of omega-3 essential fatty acids.

Omega-3 essential fatty acids, found abundantly in fish or flaxseed oil, lower the risk for and may help prevent **AMD**. They also reduce inflammation and discomfort from **dry eye**, and enhance absorption of lutein. Saturated fat (found in fatty meat, whole-milk dairy products and coconut/cottonseed/palm oils) has been associated with an 80% increased risk of **AMD**.

The **blood sugar-raising effect of food** influences eye health. For people with diabetes, consistently high blood sugar levels increase the risk of **diabetic retinopathy**, while good control can prevent or slow the condition. But there is also considerably greater risk for **AMD** and **cataract** among people who consume higher glycemic index diets.



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Lifestyle and Sight

Lifestyle choices are far more important for vision health than most people realize. How one lives in today's environment brings both risks and rewards.

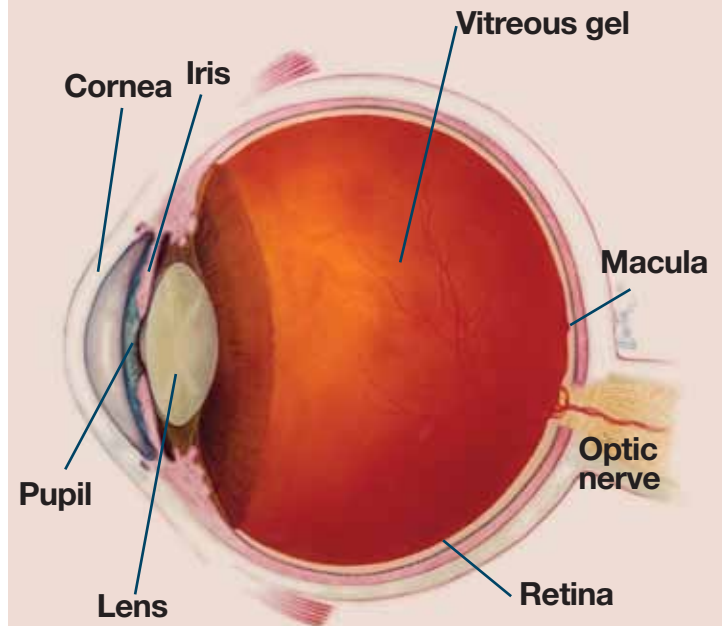
After aging, smoking is the most significant risk factor for **AMD**. Limiting exposure to smoke and stopping smoking may be beneficial in reducing **dry eye** symptoms and may prevent or delay the development of **cataract** (clouding of the lens).

Obesity has been connected to high blood pressure and cardiovascular disease—both of which are risk factors for **glaucoma**, **diabetic retinopathy** and **AMD**. Overweight individuals also tend to have a higher risk of **cataract**.

Exercise—enough to sweat, three times a week—reduces the likelihood of developing **AMD** (70% for people 43-86). This may be because physical activity can reduce factors associated with **AMD** (body mass index, white blood cell count, blood pressure). Separately, high blood pressure has been linked to **wet AMD** and can lead to progression of **diabetic retinopathy**.

Keep in Mind

- Television watchers and computer users blink less frequently, which can cause or intensify symptoms of **dry eye**.
- Heavy alcohol consumption has been connected to **AMD** and **cataract**.
- Gastric bypass patients may require vitamin A supplementation; one year after surgery, 52 percent experience vitamin A deficiency, which can result in **night blindness**, **tear deficiency** and **corneal scarring**.
- Extended-wear silicone hydrogel contact lenses provide lower risk of **corneal infection** with greater number of consecutive nights of wear versus conventional extended-wear soft lenses.
- Sulforaphane, found in broccoli, may protect against **retinal degenerative diseases**.



Retina and brain tissue are more susceptible to oxidative stress than any other part of the body.

Exposure to intense sunlight may contribute to **AMD**. It also increases risk of **cataract** and **corneal disease**, and can cause tissue growth on the surface of the eye known as **pterygium** (which may contain cancer precursor cells). As a result, scientists recommend protecting your eyes from the ultraviolet (A and B) and blue light spectrums by wearing wide-brimmed hats and UV-blocking sunglasses (amber protects best against blue light).

Invest in Your Vision

You can join RPB in supporting critical research in the fight against vision loss by sending your tax-deductible donation to the address shown below or online at www.rpbusa.org. You may also call RPB at 1-800-621-0026. A matching fund, created by RPB's founder, doubles contributions totaling up to one million dollars in any calendar year. *RPB is a public 501(c)(3) foundation.*