Good Foods for Eye Health

WebMD Feature

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The same healthy diet that's good for your heart and arteries can help preserve your eyes and vision.

That's not surprising. "Vision depends on tiny capillaries that supply the retina and other parts of the eye with nutrients and oxygen," says Monique Roy, MD, a professor at the New Jersey Medical School's Institute of Ophthalmology and Visual Science. "Keeping those arteries healthy is essential."

As part of an overall healthy diet, several key nutrients appear to be particularly important to preserving sight as we get older.

C, E, and Zinc

A decade ago, the Age-Related Eye Disease Study reported that people given vitamin E, vitamin C, beta carotene, and zinc in supplements were less likely to develop advanced age-related macular degeneration, or AMD. The combination was most effective at slowing the progression from intermediate to advanced AMD, which is one of the leading causes of age-related blindness. Because of those findings, many people diagnosed with early signs of AMD today are routinely prescribed a pill that combines these nutrients.

Lutein and Zeaxanthin

Two other nutrients -- lutein and zeaxanthin -- are also linked to lower risk of macular degeneration and cataracts. A 2008 Tufts University study of 1,802 women 50 to 79 years old found that those who consumed the most lutein and zeaxanthin in their diets were 23% less likely to develop cataracts than those who consumed the least. Rich sources of these two compounds include kale, spinach, turnip greens, romaine lettuce, broccoli, and Brussels sprouts.

Omega-3 Fatty Acid

The newest nutrient linked to better vision with age is omega-3 fatty acid, which is found predominantly in fish oil. In a study of 2,520 people, researchers at Johns Hopkins University reported in 2010 that people who consumed fish high in omega-3s fatty acids often were significantly less likely to have advanced age-related macular degeneration. Omega-3s may also protect against cataracts, according to 2010 findings by researchers at the Clinical University of Navarra in Spain.

Researchers don't understand exactly why omega-3s may protect against eye diseases. One guess is that these healthy oils may reduce inflammation and thereby protect against cell damage.

Pills vs. Food

Although antioxidant supplements are routinely prescribed to people with early signs of macular degeneration, there's little agreement on whether supplements will help otherwise healthy people preserve their vision. "Most of the evidence to date is very mixed," Allen Taylor, a leading researcher at the Laboratory for Nutrition and Vision Research at the Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University, tells WebMD. In

one recent study, for example, a multivitamin seemed to protect against some forms of cataracts but actually raise the risk of other forms.

"By far the best way to protect your vision from age-related diseases is by eating a healthy diet," says Kathleen Zelman, RD, director of nutrition for WebMD.

Recent findings help make the case for healthy food choices. A 2010 study by French scientists, for instance, found eating more vegetables -- including cabbage, broccoli, pepper, corn, or spinach -- improved the condition of the retina in people with age-related macular degeneration.

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The Healthiest Diet Pattern for Healthy Eyes

The overall pattern of your diet may be even more important than single foods. In 2009, Allen Taylor and his colleagues at the Jean Mayer USDA Human Nutrition Research Center on Aging reported a link between AMD and high-glycemic index foods, such as sugar and refined carbohydrates such as pasta and white bread. "We suspect that proteins in cells in the eye become toxic when exposed to high-glycemic index foods, leading to AMD-related injury," Taylor tells WebMD.

If high-glycemic index foods pose a risk, whole and unprocessed foods appear to protect the eyes. The healthiest diet of all may be the Mediterranean diet, which features fruits, vegetables, nuts, whole grains, fish, and heart-healthy oils. A 2009 study reported in the *Archives of Ophthalmology* tracked nearly 2,500 adults over 10 years. The volunteers filled out questionnaires about what they ate. Those who ate fish and nuts frequently had a lower risk of developing AMD by 30% or more. A second study, which included 6,734 older adults tracked for 10 years, found that adults who ate more foods with trans fats (typically found in baked or processed foods) were more likely to develop late-stage AMD. In contrast, those who consumed more olive oil -- a staple of the Mediterranean diet -- had a lower risk.

The Diabetes Connection

Age-related macular degeneration is just one threat to vision. Another serious danger and a leading cause of blindness is diabetic retinopathy. A consequence of diabetes, diabetic retinopathy occurs when blood vessels in the retina are irreversibly damaged.

Researchers don't yet understand all the factors that lead to blood vessel damage in diabetics. "But it's clear that food choices that lower your risk of developing type-2 diabetes will help lower the risk of diabetic retinopathy," says Roy. Here, too, a Mediterranean-style diet appears to offer protection. Research from the University of Melbourne in Australia reported in 2010 shows that the Mediterranean-style eating pattern can even improve blood sugar control in people with type 2 diabetes.

The Blood Pressure Connection

Cutting back on sodium, especially if you already have diabetes, may be important, as well. Too much sodium is known to increase blood pressure. And high blood pressure damages blood vessels. In a 2010 study, Roy and her colleagues showed that dietary sodium, even in the absence of hypertension, increases the risk of complications from retinopathy. High-calorie diets also increased the danger.

The good news is that the same dietary rules that will protect your heart may also help you keep your vision. Those rules are simple:

- Build your diet around fruits and vegetables
- Help yourself to nuts, beans, and whole grains
- Favor fish and chicken and other lean meats
- Eat sweets sparingly
- Avoid highly processed foods as much as possible
- Go easy on salt

By following a healthier diet, researchers at the University of Liverpool recently estimated, the risk of macular degeneration could be cut by up to 20%.