

# Food & Nutrition Newsletter



Winter 2019

## Eat to Beat Eye Disease

Aging can make you think twice about your vision. After 40, it often gets more difficult to read small print, especially in dim light. Minor declines in eyesight are considered normal with the passing of time, while some changes, such as age-related macular degeneration (AMD) and cataract, are more drastic.

Fortunately, diet and lifestyle can help prevent or delayed vision-robbing eye conditions.

### How We See

Vision involves a partnership between the brain and the eyes, which work together so that you can understand shapes and color, register movement, and determine the depth of objects.

As light enters the eye, the photoreceptors in the retina convert it to signals that travel through the optic nerve to the brain for processing. The lens of the eye, which helps to focus light on the retina, must be clear in order for the brain to register crisp images. The macula is the most sensitive part of the retina and is vital for sharp central vision.

### The Vision Stealers

AMD is a leading cause of vision loss among people age 50 and older. AMD damages the macula, resulting in the loss of central vision, which causes the center of your field of vision to appear blurry, distorted, or dark. Losing central vision interferes with everyday activities, including the ability to see faces, drive, read, and write.

Cataracts can cloud the lens of one or both eyes, making overall vision more difficult. When the lens is murky from a cataract, the images you see are blurry. Cataracts are common with aging, due to wear and tear on the eyes over the years. However, smoking and uncontrolled diabetes also contribute to cataract risk.

### Carotenoids Count for Vision

Everyday food choices help protect against age-related eye diseases that can rob you of your sight, and your independence.

Carotenoids are natural pigments that provide fruits and vegetables, such as corn, spinach, kale, and broccoli, and egg yolks, with their bright hue. Hundreds of carotenoids occur in nature, but only two, lutein and zeaxanthin, are found in the eyes. Lutein and zeaxanthin congregate in each retina, where they help protect photoreceptors by absorbing blue light, reducing inflammation, and deflecting damage from free radicals,

which are compounds that damage cells in the eye. The body doesn't make carotenoids, so you must get them from food or dietary supplements.

### Healthy Fat Fuels Good Vision

Docosahexaenoic acid (DHA) is an omega-3 fat that's good for your heart, your brain, and your eyes. DHA is present in photoreceptors, underscoring its role in healthy eyesight. Omega-3 fats have anti-inflammatory properties, and researchers think they may play a role in protecting eyes.

Seafood supplies DHA. The 2015-2020 Dietary Guidelines for Americans suggests eating at least two fish meals (a minimum of eight ounces) weekly for all the nutrients it provides. DHA is also added to certain packaged foods and is available in dietary supplements.

**FAST FACT:** According to the National Eye Institute, smoking doubles the risk for developing age-related macular degeneration.

# GET THE PICTURE

There is no magic nutrient or lifestyle behavior that completely protects against AMD and cataract. Nutrients work together with lutein and zeaxanthin to ward off damage to the eyes and to support overall eye health. Not smoking, maintaining normal blood pressure and normal blood cholesterol levels with diet and exercise, and medication if necessary, helps preserve vision.



Here are the nutrients associated with better eye health, and some food sources for each.

- **Lutein and zeaxanthin:** Broccoli, Brussels sprouts, corn, eggs, kale, pumpkin, sweet potato, nectarines, oranges, papaya, romaine lettuce, spinach, squash

- **Omega-3 fats:** Fish and shellfish
- **Vitamin A:** Apricots, cantaloupe, carrots, mango, red bell peppers, spinach, sweet potatoes
- **Vitamin C:** Broccoli, grapefruit, kiwi, oranges, red peppers, strawberries
- **Vitamin E:** Almonds, avocado, peanuts, sunflower seeds, wheat germ
- **Zinc:** Chickpeas, oysters, meat, poultry, yogurt

## Pumpkin Apple Almond Muffins

Eggs and pumpkin team up to provide lutein and zeaxanthin, and ground almonds stand in for flour and supply heart-healthy fats, too.

Makes 12 servings

1 1/3 cups almond flour*	1/2 teaspoon salt	1/4 teaspoon ground cloves, optional	1/2 cup honey
1 cup whole wheat flour	1 1/2 teaspoons ground cinnamon	3 large eggs	1/4 cup canola oil
2 teaspoons baking powder	3/4 teaspoon ground ginger	1 15-ounce can pumpkin (not pumpkin pie filling)	1 teaspoon pure vanilla extract
1/2 teaspoon baking soda	3/4 teaspoon ground nutmeg		2 cups coarsely grated unpeeled apple

Preheat oven to 400°F. Generously coat 18 standard muffin cups with cooking spray.

In a medium bowl, combine the almond flour, whole wheat flour, baking powder, baking soda, salt, cinnamon, ginger, nutmeg, and cloves, using a whisk.

In a large bowl, whisk the eggs, pumpkin, honey, oil, and vanilla until well combined.

Add the flour mixture to the pumpkin mixture and combine, using a wooden spoon, until thoroughly blended. Gently fold in the apples.

Divide the batter evenly among the 18 muffin cups. Bake for 13 to 16 minutes, or until a toothpick inserted into the center of a muffin comes out clean. Remove muffins from pan and cool on a wire rack.

\*Grind 1 cup of whole almonds to make about 1 1/3 cups almond flour.

**Per serving:** Calories: 153; Total fat: 8 grams; Saturated fat: 1 gram; Cholesterol: 35 milligrams; Sodium: 166 milligrams; Carbohydrate: 20 grams; Fiber: 3 grams; Protein: 4 grams; Calcium: 60 milligrams.

## ASK THE RD:



What is blue light?



Blue light is a type of light that's most damaging to eyesight. Almost all blue light reaches the retina, which could affect vision and prematurely age the eyes. While the main source of blue light is sunlight, LED light, computer monitors, smart phones, tablets, and other screens are also sources of blue light. Experts are concerned about the long-term effects of screen exposure because of the close proximity of screens to the eyes, and the amount of time we spend looking at screens. Children's eyes absorb more blue light than adult eyes from digital device screens, which may affect their eyesight in the long run.