

## Macular Degeneration: Sight-Saving Strategies

### Background for Facilitators

Learn more about age-related macular degeneration (AMD):

[Nutrition saving sight ARS 2010](#)

[Lowering risk for major eye disease ARS 2015](#)

[Eating for healthy eyes complex carbs Tufts 2017](#)

[Facts about age related maculardegeneration National Eye Institute NIH](#)

[What is macular degeneration AMD Foundation](#)

Macular degeneration leads to the gradual loss of central vision, which is necessary for driving an automobile, reading and recognizing people's faces. According to one common theory, light and oxygen cause substances called "free radicals" to form in the retina, where they may damage the tissue.

The macula is part of the retina at the back of the eye. It is only about 5 mm across, but is responsible for all of our central vision, most of our color vision and the fine detail of what we see.

The macula has a very high concentration of photoreceptor cells that detect light and send signals to the brain, which interprets them as images. The rest of the retina processes our peripheral (side) vision. [Video of Mac YouTube](#)

The yellow color of the macula is due to the presence of the carotenoid pigments lutein and zeaxanthin. In contrast to human blood and tissues, no other major carotenoids including Beta-carotene or lycopene are found in this tissue. The macular carotenoids are suggested to play a role in the protection of the retina against light-induced damage.

[Glycemic index](#): A food's glycemic index (GI) is an indicator of how the carbohydrate in the food raises blood sugar levels. A food with a high GI raises blood glucose more than a food with a medium or low GI.

Strength training video: [Mayo Clinic Article](#) [Weight Training](#)

! The suggested wording for the presentation is in regular font and the **facilitator directions are in bold, dark red italic**. It's best not to read the presentation, but to use your own words, staying close to the meaning.

## Behavior Goals

Participants will:

1. Identify two ways nutrition can help promote eye health.
2. Choose one food group to eat more often that contributes to eye health.

## Meeting Preparation

1. Review newsletter content and background resources in this guide.
2. Send questions to your Coordinator.
3. Purchase ingredients for the food tasting. Practice making soup recipe. How will you keep the soup warm?
4. Optional: Purchase examples of foods to display.

## Props

- Sunglasses
- Magnifying glass or “pretend” playful glasses (for action step)
- Printed pages with antioxidant names provided at the end of this guide or write names on paper or whiteboard.
- Optional: Display colorful fruits and veggies rich in carotenoids and antioxidants (refer to page 3).
- Optional: Display educational information about age-related macular degeneration or an eye diagram showing the retina and macula.

## PRESENTATION

### Follow Up To Last Month's Meeting (February 2019)

Last month we talked about brain health and a fancy-sounding antioxidant, anthocyanin. **Show the word “anthocyanin” and place on poster board or tape to table.** This antioxidant was found to be particularly good for brain health. Anthocyanin gives food a certain color.

- What's the color? **Blue**
- What food did we discuss that is rich in anthocyanin? **Blueberries**
- If you decided to eat more blueberries after the meeting, tell us how you chose to eat them. **Allow time for responses.**

## Introduction

I'm going to assume that everyone in this room has experienced some vision loss or knows someone who has. Would you agree? Loss of vision is common as we age so that's not a big surprise.

I'm also going to guess that most of you don't think much about how food impacts your eyesight. Is that a fair assumption? **Acknowledge group response.** Sure, as kids we were told to eat carrots but what else should we know to keep our eyes healthy?

## Nutrition Discussion

Please raise your hand if you've heard about age-related macular degeneration or AMD. Acknowledge group response. Today, we'll talk about ways to prevent this condition and learn what foods, in addition to carrots, contribute to general eye health.

AMD is a common eye condition and a leading cause of vision loss among people age 50 and older. It causes damage to the macula, a small spot near the center of the retina at the back of the eye, and the part of the eye needed for sharp, central vision, which lets us see objects that are straight ahead.

Another common eye problem is cataracts, an opaque (cloudy) area that occurs in the normally clear lens of the eye. Over 1 million people need cataract surgery each year.

The risk for vision problems like AMD increases with age and we know macular degeneration is more common among white Americans. Genetics seem to play a role, too. Not much we can do about those risk factors. So, what **can** you do?

*Note to facilitator: If you have limited time, choose three of the five following points to discuss.*

### Don't Lose Sight of the "Big Picture"

Do you recall the advice, "What's good for your heart is good for your brain?" This applies to your eyes, as well. There is an extensive system of small blood vessels that keep your eyes healthy. So, foods and other health practices that are good for your heart and brain are also good for your eyes. Do you see the big picture? □

### Eat in Color

Some colorful foods are particularly important for eye health.

Color molecules called pigments give fruits and vegetables their beautiful colors. These natural pigments play critical roles in the health of plants (like photosynthesis) **and** humans. For example, they protect your eyes from sunlight damage.

Scientists have found that pigments called carotenoids protect your eyes against macular degeneration. Two carotenoids, **lutein and zeaxanthin**, are turning out to be the most powerful vision protectants because they protect the macula. *Display cards for lutein and zeaxanthin. Review food sources on page 3; use real examples of foods, if you have them.* There are even more examples of colorful foods with these pigments, including corn. Now, that's good news for lowans!

Another colorful carotenoid is called **beta carotene**. *Ask for volunteer to read paragraph about beta carotene on page 3. Review and show food sources, if you have them.*

### **Eat Your Vitamins**

While there may be some benefit from a supplement if you already have AMD (*point to article on first page*), supplements aren't the answer for eye health. There's no magic bullet. **Fruits and veggies** have a variety of plant chemicals that support eye health, including vitamin C, an antioxidant. These chemicals work together in nature to protect plants and animals, including us. *Point out antioxidants on page 3 and post the card with vitamin C.*

### **Choose Whole Grains**

*Fresh Conversations* newsletters typically don't dive deep into research. However, the dietitian who writes this newsletter thought some of you might be interested in the details of the study described on page 2. It revealed new information that's complicated to explain. So, I'll leave it to you to decide if you want to read it. But the bottom line is something we already know is good for us: eat whole grain foods instead of refined carbohydrates.

### **Lifestyle Counts**

Other ways to help prevent damage to the macula and cataract formation are to avoid smoking and wear sunglasses. *Put on sunglasses for emphasis.*

Smoking generates free radicals, which cause oxidative damage to your eyes. Because the harmful ultraviolet rays of the sun can also be damaging, be sure to wear your sunglasses.

Speaking of smoking...check out the article at the bottom of page 4. This sentence really stood out to me: Social isolation is as bad for health as smoking 15 cigarettes a day. Are you surprised by that finding? I certainly was. *Allow time for reaction, if possible.*

I'm so glad you are able to come to *Fresh Conversations*. I hope you enjoy our discussions as much as I do. Now let's get to the part of the meeting that I know you enjoy the most—tasting food!

### **Food Tasting**

**Recommended tasting:** Taste the cabbage soup recipe on page 4 to celebrate St Patrick's Day. Generate ideas to add even more veggies to the soup. Serve at home with an antioxidant-rich fruit salad and whole grain crackers or slice of whole-grain bread.

Teaching tip: Some vitamin C in cabbage is lost during cooking.

**Option 1:** Demonstrate and discuss ways to eat leafy greens like kale and spinach. Make it fun with a demo of a kale massage to soften the leaf.

**Option 2:** There are lots of ways to taste sweet potatoes. Your coordinator has several resources, if you're interested.

## Physical Activity

Over the next few meetings, we'll practice simple ways to strengthen muscles while you watch TV or get ready for bed. No need for a gym. Let's start with our arms.

**Strength** - Exercises that build and strengthen muscles.

Note: Start without weights, and as you gain strength you can add weight in increments of 1 or 2 pounds. Cans of soup and water bottles make a good substitute for weights.

### Side arm raises

You can do this exercise while standing or sitting in a sturdy, armless chair.

1. Keep feet flat on the floor even, shoulder-width apart.
2. Hold hand weights straight down at your sides with palms facing inward.
3. Slowly breathe out as you raise both arms to the side, shoulder height.
4. Hold the position for 1 second.
5. Breathe in as you slowly lower arms to the sides. Repeat 10 to 15 times
6. Rest; then repeat 10 to 15 more times.

## Take Action

All of us can write down one action on the last page of the newsletter. ***Get an annual eye exam.*** AMD has few symptoms in the early stages, so it is important to have your eyes examined regularly.

It's important to eat foods from food groups that support eye health. Today we talked about why it's important to fill your plate with colorful fruits and veggies and choose whole grains.

### Q: What food group could you eat more of this week for eye health?

Write it down and think of the first step you need to take to make it happen. Who's willing to share what they plan to do?

***Pass around a magnifying glass or sunglasses as people commit to take action. If you have silly plastic glasses for costumes—go ahead and have some fun with them! Offer a fruit or vegetable from the display with individuals who share.***



# Anthocyanin





# Lutein and Zeaxanthin



# Beta Carotene





# Vitamin C





# FRESH

## CONVERSATIONS



What is the  
conversation  
about?

### March Conversations

- Learn new sight-saving tips
- Eye healthy foods
- Try a tasty cabbage and carrot soup

**When?**

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**Where?**

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**Contact:**

Name: \_\_\_\_\_

Phone: \_\_\_\_\_

Iowa Nutrition Network  
Iowa Department of Public Health  
(515) 281-6047

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ISU AnswerLine 1-800-262-3804