



COMPLIMENTARY COPY
TAKE ONE HOME

WebMD®

FOCUS ON

WINTER 2021

TIPS TO MANAGE
YOUR SYMPTOMS

PAGE 15

FOLLOW-UP VISITS:
WHAT TO KNOW

PAGE 16

FIRST PERSON:
LIVING WITH wAMD

PAGE 13



CONTENTS

03 NEWS

Research updates about wet AMD

07 FOOD FOR THOUGHT

Boost eye health with a diet packed with poultry, leafy greens, fish, and more

08 LIFE AT HOME

Create a safer living space with pro tips

09 ASK THE EXPERT

Tips to protect your eyesight and more

10 HEALTH SMARTS

What to know about the diagnosis and treatment of wet AMD



12 BY THE NUMBERS

Facts and stats about this condition

13 FIRST PERSON

How one man received a wet AMD diagnosis

14 TREATMENT FOCUS

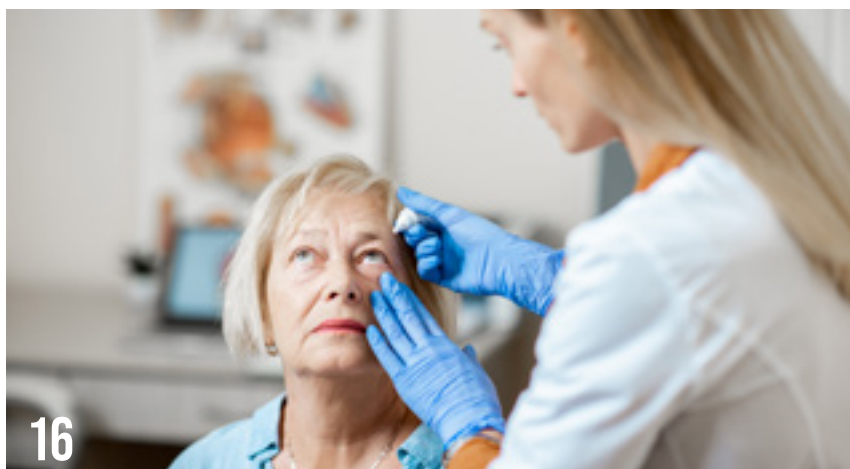
Why early detection and treatment are key

15 HEALTH HIGHLIGHTS

Ways to manage your symptoms

16 FOLLOW-UP VISITS

What to expect at future appointments for wet AMD



WebMD Focus On is not responsible for advertising claims. WebMD Focus On (ISSN 1553-9946) is published by WebMD LLC and may not be reproduced in whole or in part without written permission of WebMD LLC. All rights reserved. All editorial content is reviewed by our board-certified physicians, is for informational purposes only, and is not intended to be a substitute for professional medical advice, diagnosis, or treatment. WebMD does not endorse any specific product, service, or treatment. Always seek the advice of your health care provider with any questions regarding a medical condition and never disregard professional medical advice or delay seeking it because of something you have read in a WebMD publication. If you think you have a medical emergency, call your doctor or 911 immediately. 2021 WebMD LLC. All rights reserved.

RECENT HEADLINES

KEEP UP WITH THE LATEST RESEARCH

HALLUCINATIONS EXPLAINED

Some people with vision loss due to macular degeneration have hallucinations (a condition called the Charles Bonnet syndrome). The visions can cause people to worry they have dementia or mental illness. Doctors often misunderstand the problem, too. New research could help doctors distinguish between vision-loss-related hallucinations and other types. Researchers used electroencephalography (EEG) to measure the brain activity of people with macular degeneration with and without hallucinations. They found that hyperactivity in the brain—possibly as it adapts to reduced vision—triggers the illusions. Doctors may one day use EEG to diagnose this type of hallucination. The researchers found that people don't mind the hallucinations as much once they understand the cause.

SOURCE: *Current Biology*

11 million

SOURCE: Bright Focus Foundation

Estimated number of people in the U.S. who have age-related macular degeneration.

1 in 10

SOURCE: Bright Focus Foundation

Estimated number of people whose macular degeneration is "wet" or exudative.

HOW GENES MAY PLAY A ROLE

A combination of lifestyle factors, such as smoking and diet, and your genes influence risk for macular degeneration. But doctors don't fully understand the role that genes play. A new study may shed some light. Scientists have discovered several gene variants, or versions, that are more common in people who have the disease. Identifying the genes that might trigger the condition could help researchers develop treatments that target those genes. The discovery could also help doctors better evaluate risk in relatives of people who have macular degeneration.

SOURCE: *Nature Genetics*

SKIP THE INJECTIONS

Researchers at Johns Hopkins University in Baltimore have developed a device for people with wet age-related macular degeneration that could mean no more needles in their eyes. A reservoir implanted in the eyes would continuously release medication. This could put a stop to monthly injections at the doctor's office. Instead, doctors would place the tiny medication-filled receptacle in the eye during a clinic visit and the patient would return for refills every six months.

SOURCE: *Ophthalmology*



GETTY IMAGES

KEEP LIVING LIFE THROUGH YOUR EYES

TAKE CONTROL OF YOUR SIGHT WITH EYLEA.

If Wet AMD has impacted your eyes—and how you see life—
fight back with EYLEA.

- EYLEA is **clinically proven to help improve vision**—which may help you read letters and see details more clearly
- EYLEA helped **maintain vision improvements for up to 4 years** with continued treatments in a clinical study

ASK A RETINA SPECIALIST ABOUT EYLEA.

INDICATIONS

EYLEA[®] (aflibercept) Injection 2 mg (0.05 mL) is a prescription medicine approved for the treatment of patients with Wet Age-related Macular Degeneration (AMD), Macular Edema following Retinal Vein Occlusion (RVO), Diabetic Macular Edema (DME), and Diabetic Retinopathy (DR).

IMPORTANT SAFETY INFORMATION

EYLEA[®] (aflibercept) Injection is a prescription medicine administered by injection into the eye. You should not use EYLEA if you have an infection in or around the eye, eye pain or redness, or known allergies to any of the ingredients in EYLEA, including aflibercept.

Injections into the eye with EYLEA can result in an infection in the eye and retinal detachment (separation of retina from back of the eye) can occur. Inflammation in the eye has been reported with the use of EYLEA.

In some patients, injections with EYLEA may cause a temporary increase in eye pressure within 1 hour of the injection. Sustained increases in eye pressure have been reported with repeated injections, and your doctor may monitor this after each injection.

There is a potential but rare risk of serious and sometimes fatal side effects, related to blood clots, leading to heart attack or stroke in patients receiving EYLEA.



#1 **FDA-APPROVED** treatment in its class
for patients with Wet AMD*

The most common side effects reported in patients receiving EYLEA were increased redness in the eye, eye pain, cataract, vitreous (gel-like substance) detachment, vitreous floaters, moving spots in the field of vision, and increased pressure in the eye.

You may experience temporary visual changes after an EYLEA injection and associated eye exams; do not drive or use machinery until your vision recovers sufficiently.

Contact your doctor right away if you think you might be experiencing any side effects, including eye pain or redness, light sensitivity, or blurring of vision, after an injection.

For additional safety information, please talk to your doctor and see the full Prescribing Information for EYLEA.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

Please see the Consumer Brief Summary on the adjacent page.

*IBM Truven MarketScan data: Number of injections administered, from Q4 2018 through Q3 2019; Data on File.

VISIT EYLEA.COM

Consumer Brief Summary

This summary contains risk and safety information for patients about EYLEA. It does not include all the information about EYLEA and does not take the place of talking to your eye doctor about your medical condition or treatment.

What is EYLEA?

EYLEA is a prescription medicine that works by blocking vascular endothelial growth factor (VEGF). VEGF can cause fluid to leak into the macula (the light-sensitive tissue at the back of the eye responsible for sharp central vision). Blocking VEGF helps reduce fluid from leaking into the macula.

What is EYLEA used for?

EYLEA is indicated for the treatment of patients with:

- Neovascular (Wet) Age-Related Macular Degeneration (AMD)
- Macular Edema Following Retinal Vein Occlusion (RVO)
- Diabetic Macular Edema (DME)
- Diabetic Retinopathy (DR)

How is EYLEA given?

EYLEA is an injection administered by your eye doctor into the eye. Depending on your condition, EYLEA injections are given on different schedules. Consult with your eye doctor to confirm which EYLEA schedule is appropriate for you.

Who should not use EYLEA?

Do not use EYLEA if you have an infection in or around the eye, eye pain or redness, inflammation in the eye, or are allergic to aflibercept and/or any other ingredients in EYLEA.

What is the most important information I should know about EYLEA?

- EYLEA must only be administered by a qualified eye doctor. Injection into the eye with EYLEA can result in an infection in the eye and retinal detachment (separation of retina from back of the eye) can occur. Inflammation in the eye has been reported with the use of EYLEA. If your eye becomes red, sensitive to light, painful, or develops a change in vision, seek immediate care from an eye doctor
- In some patients, injections with EYLEA may cause a temporary increase in eye pressure within 1 hour of the injection. Sustained increases in eye pressure have been reported with repeated injections, and your eye doctor may monitor this after each injection
- There is a potential but rare risk of serious and sometimes fatal side effects related to blood clots, leading to heart attack or stroke in patients receiving EYLEA
- Serious side effects related to the injection procedure with EYLEA are rare but can occur including infection inside the eye and retinal detachment
- You may experience temporary visual changes after an EYLEA injection and associated eye exams; do not drive or use machinery until your vision recovers sufficiently
- Because EYLEA is composed of large molecules, your body may react to it; therefore, there is a potential for an immune response (allergy-like) in patients treated with EYLEA

What are possible side effects of EYLEA?

EYLEA can cause serious side effects, including

- See important safety information listed under “What is the most important information I should know about EYLEA?”

The most common side effects include

- Increased redness in the eye
- Eye pain
- Cataract
- Vitreous (gel-like substance) detachment
- Vitreous floaters
- Moving spots in the field of vision
- Increased pressure in the eye

There are other possible side effects of EYLEA. For more information, ask your eye doctor.

It is important that you contact your doctor right away if you think you might be experiencing any side effects, including eye pain or redness, light sensitivity, or blurring of vision, after an injection.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch, or call 1-800-FDA-1088.

What should I tell my eye doctor before receiving EYLEA?

- Tell your eye doctor if you have any medical conditions
- Tell your eye doctor if you are pregnant or are planning to become pregnant. It is not known if EYLEA may harm your unborn baby
- Tell your eye doctor if you are breastfeeding. It is not known if EYLEA may harm your baby. You and your eye doctor should decide whether you should be treated with EYLEA or breastfeed, but you should not do both

How is EYLEA supplied?

EYLEA is supplied in a clear, colorless to pale yellow solution. It is provided in a pre-filled glass syringe or glass vial containing the amount of product required for a single injection into the eye, which is 0.05 mL (or 2 mg of the medicine product).

Where can I learn more about EYLEA?

For a more comprehensive review of EYLEA safety and risk information, talk to your health care provider and see the full Prescribing Information at EYLEA.com.

REGENERON

Manufactured by:

Regeneron Pharmaceuticals, Inc.
777 Old Saw Mill River Road
Tarrytown, NY 10591

EYLEA is a registered trademark of Regeneron Pharmaceuticals, Inc.

© 2020, Regeneron Pharmaceuticals, Inc. All rights reserved.

Issue Date: November 2020

Initial U.S. Approval: 2011

based on the August 2019 EYLEA® (aflibercept) injection full Prescribing information.

FOODS THAT HELP

HOW YOUR DIET CAN HELP SLOW SYMPTOMS

By Rachel Reiff Ellis

Reviewed by Brunilda Nazario, MD, WebMD Senior Medical Editor

Though a healthy diet cannot reverse wet age-related macular degeneration, eating certain foods—and avoiding others—can help put the brakes on its progression. “Diet is a very integral part of health in general, but also for vision health, and for the retina in particular,” says Avnish Deobhakta, MD, assistant professor of ophthalmology and vitreoretinal surgery at New York Eye and Ear Infirmary of Mount Sinai. He says the key is to first cut out the foods that can hurt you, then bump up your eating of those that are most

beneficial for your eyes.

WESTERN DIET WOES

When it comes to boosting eye health, antioxidants called carotenoids are essential, especially two: lutein and zeaxanthin. “Both are very much needed for the retina to function over time well,” Deobhakta says. “As you get older, you don’t really produce or keep much of them, so it’s up to you to keep it up through diet.”

Unfortunately, a typical Western diet—high amounts of red meat, processed foods, fried items, desserts, eggs,

refined grains, high-fat dairy, and sugar-sweetened beverages—is low on carotenoids. And it’s rough on your vision in other ways, too. “Western diet foods generate a lot of inflammation in the body, which is a problem because the main thing that destroys the retina in macular degeneration is deposits of inflammatory debris,” Deobhakta says.

WHAT TO EAT

A better diet choice is one experts call the “prudent pattern.” Typical foods for this way of eating includes lots of veggies, especially dark leafy greens, colorful fruits, legumes, oils, whole grains, poultry, fish, and low-fat dairy. “In a major study defining these two different kinds of diet, those who followed the prudent pattern had a really great response to reducing risk to late AMD,” Deobhakta says. Fish offer omega-3 fatty acids, too, another important part of an eye-healthy diet.

Although foods are the best place to get antioxi-

dants, doctors may also prescribe “eye vitamins” called AREDS2 in certain cases, to pump up your levels of lutein and zeaxanthin as well as copper, zinc, and vitamins C and E. “If we know someone has a form of macular degeneration that might progress to wet or late stage, we give them AREDS2 vitamins, twice a day,” Deobhakta says. “But it’s much better to get these antioxidants in your diet, especially if it helps you develop a healthy eating strategy long term.”

GO GREEN

Work these leafy greens into what you eat for the highest doses of lutein, zeaxanthin, and carotenoids, says Avnish Deobhakta, MD.

Kale

Steam it, cook it, bake it, or eat it raw. This leafy green is good in soups, salads, or on its own as crispy kale chips.

Spinach

Softer than kale, spinach is used as a garnish on top of veggie burgers and to bulk up a tasty salad, or blend into a smoothie. You can sauté it as well.

Collards

Collards can be bitter, so sauté them with olive oil for a long time. Add a tiny pinch of sugar before serving.

Turnip greens

The leaves of turnips are great sautéed in oil and eaten on their own, or you can add them to any salad.



FOR FEWER FALLS

Ways to reduce slips and trips around the house, according to Amy Watts, DO:

Skip the stairs

Ground-floor living is best. If you have to go up steps, be sure you have a handrail to help you.

Remove rugs

Rug edges are tripping hazards; the bare floor is best.

Use nightlights

Make sure you can see where you're going when you get up to use the bathroom at night.

Get a grip

Bars in the shower can help you get in and out safely when it's time to wash.

SET UP YOUR HOME

TAKE STEPS TO COVER THE BASES FOR A SAFER LIVING SPACE

By Rachel Reiff Ellis

Reviewed by Brunilda Nazario, MD, WebMD Senior Medical Editor

Wet AMD may limit your vision, but with a few adjustments and tools, you can continue to move around your house with confidence. Do an audit on your living space with the below tips in mind.

LIGHT IT UP

Bright, even lighting in your home is the best way to increase what you're able to see. Use outdoor light where you can. "Make sure curtains can open fully, and that areas where you might want to do any of your hobbies or cooking have as much natural light as possible," says Amy Watts, DO, director of the vision rehabilitation clinic at Massachusetts Eye and Ear. Watts also says

to keep tabs on the angle of the sun when using window light.

"When light is coming in straight sideways, horizontally at you, that's when you get the most glare," she says. Glare can make you see contrast or changes in elevation that aren't there, so turn to indoor light at these times of day. Watts recommends gooseneck lamps or clip-on lights that shine downward for tasks in front of you.

MARK IT OUT

Boost your awareness of ledges, edges, and steps to lower your risk of falls by using contrast. "Make sure

any steps and thresholds where there's a change in elevation are clearly marked with a contrasting tape," Watts says. If your floor is dark, use a light-colored tape, and vice versa. You can use this same method for other areas like counters, toilet seats, or even couches. "If you have a favorite spot on your dark brown couch, for example, you can put a white towel there, to help you navigate to the space where you like to sit," she says.

WORK A SYSTEM

Organization is your friend. If everything has a place, you'll know where to find what you need. "You don't

want to have to stick your hand in a drawer and feel for a can opener," Watts says. Decide on a spot for things and have someone help you label where things go, so others can help keep it that way. You can also use textures, such as Velcro stickers in different patterns on cans and boxes to help you know what you're grabbing in the pantry or medicine cabinet.

For those with the funds to do so, Watts says there are smart home systems that can make your home voice activated. "There are companies that will go in and do a whole-home smart system so you can turn down the heat, ask what the temperature is set on, turn off the lights, and lock the doors. It's expensive, but it's a wonderful tool for the low-vision world."

SIGHT SOLUTIONS

USE THESE TIPS TO PROTECT YOUR EYESIGHT

By Rachel Reiff Ellis

Reviewed by Michael W. Smith, MD, WebMD Chief Medical Editor

Charles C. Wyckoff, MD, PhD, retina specialist at Blanton Eye Institute at Houston Methodist Hospital, addresses ways to keep eyes healthy and protected when you have wet age-related macular degeneration (wet AMD).

Q. WHAT ARE SOME WAYS YOU CAN MAXIMIZE YOUR EYE HEALTH WHEN YOU HAVE WET AMD?

Three things to consider when you want to slow the progression of wet AMD: First, have regular ophthalmic examinations with an eye care provider who is comfortable performing a comprehensive retina evaluation. Second, don't smoke. Third, optimize your cardiovascular health, including working with your doctor to make sure your blood pressure and cholesterol are within the normal range.

Q. DO SUPPLEMENTS HELP WITH AMD?

If you have intermediate dry AMD, or advanced AMD in one eye, consider taking AREDS2 vitamin supplements. The AREDS2 supplements are a nonprescription combination of six components that include specific concentrations of vitamin C, vitamin E, lutein, zeaxanthin, zinc, and copper. This combination of supplements is marketed by many different

manufacturers; the specific company that makes them is less important than making sure you get the accurate amount of each component.

Q. DOES SUN EXPOSURE WORSEN WET AGE-RELATED MACULAR DEGENERATION? WHAT KIND OF PROTECTIVE MEASURES SHOULD YOU TAKE WHEN YOU'RE OUTDOORS?

The majority of data indicate that sun exposure is not a major risk factor for the development of wet AMD. However, you should consider using UV-protection, either in the form of sunglasses or prescription glasses, to minimize exposure of your eye and surrounding tissues to UV light.

Q. WHAT DEVICES ARE AVAILABLE TO HELP WITH LOW VISION?

Before using any kind of device, make sure you have a proper diagnosis and recommendation from your ophthalmologist. You may be able to use magnifiers, high-powered lenses for your glasses, or even an implanted device called an implantable miniature telescope (IMT). An IMT is typically only used if your wet AMD is very advanced. Aside from devices, you can also get technology that speaks the information

instead of you having to read it, like talking computers, watches, or calculators. You can also switch to large print on your computers or in some printed materials so you can see words and images without straining.

Q. WHAT'S ON THE HORIZON FOR MACULAR DEGENERATION TREATMENT AND CARE?

Excellent treatments exist for managing the neovascular, or wet, form of AMD. Current treatments involve injection of medications into an eye with neovascular AMD to stop the growth and leakage of abnormal blood vessels. When used appropriately, these medications are highly effective at preventing further vision loss, and, in many patients, can also improve visual function. Multiple ongoing studies are investigating next-generation treatments for neovascular AMD and treatments for the advanced form of dry AMD, known as geographic atrophy.



WAMD

101

LEARN MORE ABOUT WHAT CAUSES WET AMD, HOW IT AFFECTS YOUR EYES, AND HOW TO MANAGE IT

By Rachel Reiff Ellis

Reviewed by Alan Kozarsky, MD, WebMD Medical Reviewer

Age-related macular degeneration (AMD) is the leading cause of vision loss in adults over age 50 in the U.S. The macula is a small densely packed area of nerve cells in the middle of your retina responsible for sharp central vision. Macular degeneration damages this bundle of cells and along with it your ability to see clearly.

WET VS. DRY AMD

AMD has three stages: early, intermediate, and late. Your vision isn't typically affected until you reach late-stage AMD. Late-stage AMD has two subtypes: wet (also called neovascular) and dry (also called geographic atrophy). You can have one type only or both at the same time in one or both eyes.

Dry AMD affects your vision by slowly breaking down the cells and tissues in and around your macula. In wet AMD, macula damage happens because of new, abnormal blood vessels that grow behind your retina. "The term wet refers to the bleeding or leaking from this mesh of abnormal blood vessels,"

says Eugene Y. Shildkrot, MD, associate professor of ophthalmology and co-director of the Retina Fellowship Program at the University of Virginia School of Medicine. This fluid buildup in and under your retina causes it to swell and affect your sight.

The majority of people with late-stage AMD have the dry type. "Dry macular degeneration is by far the most common subtype, outnumbering the wet type nearly 4 to 1," says Shildkrot. Although the wet type is rarer, it accounts for the majority of cases of AMD-caused vision loss.

SYMPTOMS

The symptoms of wet AMD come on

more quickly and are typically more severe than the symptoms of dry AMD. "Unlike the dry type, which tends to be slow in progression, wet macular degeneration can have a very sudden onset," Shildkrot says. Often you'll have a large dark or empty spot in the center of your field of vision, but you may have other effects, such as trouble seeing colors correctly, objects appearing the wrong shape or size, or blurry vision.

"You may have difficulty seeing faces or the center of a clock, or straight lines may appear warped," says Shildkrot. If you have wet AMD in one eye, he notes, it increases the chances that the other eye will also develop it.



GETTY IMAGES



“THE TERM WET REFERS TO THE BLEEDING OR LEAKING FROM THIS MESH OF ABNORMAL BLOOD VESSELS.”

- Eugene Y. Shildkrot, MD

RAISED RISK

These factors increase your odds of getting wet AMD:

- + **Family history.** If a relative has or had AMD, it's more likely you'll get it.
- + **Race.** AMD is more common in people who are white.
- + **Smoking.** Studies show smoking cigarettes can double your risk of AMD.
- + **Genetics.** Certain gene variants, or versions, may be associated with AMD.

DIAGNOSIS

To know whether you have wet AMD, you'll need to have a clinical exam by an eye specialist. Using a visual acuity test, your doctor can see how sharp your vision is at various distances. You may also look at an image called an Amsler grid to determine if straight lines appear wavy. Your doctor will dilate your eyes to see if there is fluid buildup under your retina.

Your doctor may also take photographs of your retina (called fundus photography), do a laser scan of the retina (an optical coherence tomography, or OCT), or look at the blood vessels of your retina with a test called

an angiography. “Angiography helps us observe blood vessel leakage in real time by injecting dye through a vein in the arm that eventually reaches the neovascular membrane,” says Shildkrot. This neovascular membrane is the mesh-like collection of abnormal blood vessels under your retina.

TREATMENT

The most common treatment is regular injections into the eye with anti-VEGF drugs. “These medications decrease the growth factors responsible for neovascular membrane formation and maintenance,” Shildkrot says. Anti-VEGF drugs help stop new abnormal blood vessels from growing.

Other, less common options your doctor may try in combination with anti-VEGF injections is treatment with lasers. They may suggest laser therapy, which uses a beam projected into your eye to stop new blood vessel growth, or laser surgery with a different kind of beam that destroys abnormal blood vessels.

There is no cure for AMD, but with the right care, you may slow the progression of the disease. “Early detection and prompt treatment within a week of conversion to the ‘wet’ macular degeneration are both key to maintaining or improving your vision,” Shildkrot says.

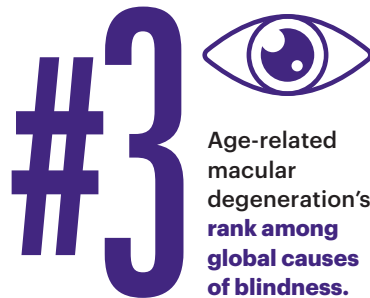
FACTS AND STATS

By Sonya Collins

Reviewed by Michael W. Smith, MD, WebMD Chief Medical Editor



Estimated number of people in the U.S. who **will have macular degeneration by 2050. That's double the number** of those who have it today.



Age-related macular degeneration's **rank among global causes of blindness.**



Your chance of developing macular degeneration **if you are older than age 75.** From ages 50 to 59, the risk is only 2%.



Number of cases of **blindness worldwide** that result from age-related macular degeneration.



Expected number of **cases of age-related macular degeneration worldwide** by 2040.



Estimated number of people who **have age-related macular degeneration worldwide.**



Estimated global health care **costs of vision loss** due to age-related macular degeneration.



Number of people with **age-related macular degeneration who have a first-degree relative**—such as a sibling or parent—who has it, too.

SOURCES: JAMA Ophthalmology, The Lancet, Bright Focus Foundation, National Eye Institute, Genetics Home Reference, The International Agency for Prevention of Blindness, World Health Organization



FRED'S TIPS

Wear shades. Sunglasses with UVA/UVB protection block those dangerous rays.

Supplement your diet. If you're at risk for AMD, or you have the dry type, ask your doctor about taking supplements containing nutrients like lutein, zeaxanthin, and zinc to protect your vision.

Check your grid. After you're diagnosed with AMD, use the Amsler grid as a guide to check whether your vision is getting worse. If the lines look wavy or fuzzy, call your eye doctor.

have to read something up close, but most of the time I don't. Now I'm trying to get my grown children to be more proactive about their vision. At a family gathering, I learned that several of my cousins also had macular degeneration. Because of our family history, I urged my kids to start taking the supplements that are recommended to help protect vision in people with this condition.

LOSING SIGHT

AN UNUSUAL VISION CHANGE LED ONE MAN TO HIS EYE DOCTOR—AND A SURPRISING DIAGNOSIS

By Fred Watson

Reviewed by Alan Kozarsky, MD, WebMD Medical Reviewer

In the mid-1980s, I was going to engineering school in Newark, NJ. I noticed that I was having a little trouble reading the textbooks. I thought I needed glasses, so I visited an optometrist. He gave me a field of vision test. There were a number of pinholes through which lights would shine. Whenever I saw a light come on, I had to press a button. I wasn't able to see some of the lights. My doctor told me that some areas of my vision were dead, and he recommended that I see a specialist.

The specialist took pictures of my eyes with a camera and a bright light but didn't discover anything. A few years later, as I was sitting on the porch of my shore house, I saw a strange

little twirl in the middle of the telephone wire out front. It had a twist in it that shouldn't have been there.

I went to another specialist, who diagnosed me with age-related macular degeneration (AMD). There are two forms: wet and dry. I had the dry form. The doctor recommended that I start taking special vitamins to slow the disease and to look at an Amsler grid every day to see if the lines became wavy—a sign that my AMD was getting worse.

I was seeing my doctor periodically to monitor my AMD and check whether anything had changed. One day, after he took pictures of my eyes, he called me into his office. He showed me the pictures, noting where blood

vessels under my retina were leaking. In my right eye, dry macular degeneration had changed into the wet type. Whenever I would look straight at the tiny light on my TV set or smoke detector, the light would disappear. That was my central vision starting to go. My doctor put me on injections of a drug to block the spread of abnormal blood vessels in my eye.

About two years ago, the TV screen turned wiggly, and the crawl across the bottom moved up and down to the point where I couldn't read it. I told my wife, "I think something's wrong." I'd developed wet macular degeneration in my left eye. I got a shot in the second eye, and within two days, my vision had improved.

I continued to get shots in both eyes once a month until my doctor felt comfortable that my vision had stabilized enough to start spacing them out. Now I get injections every eight to nine weeks. I also had cataract surgery in both eyes.

Today, I see pretty well. I'm able to drive at night, which used to bother me. I carry glasses with me to use if I



ASK YOUR DOCTOR

If you have a new diagnosis of wet AMD, ask your doctor:

What are the pros and cons of the different available medications?

How effective is the medication?

What are the risks and side effects?

Does insurance cover treatment? Is other financial assistance available?

What's my prognosis based on my eye exams?

KNOW THE SIGNS

WHEN DRY AMD BECOMES WET AMD, EARLY DETECTION AND TREATMENT ARE KEY

By Sonya Collins

Reviewed by Alan Kozarsky, MD, WebMD Medical Reviewer

About 1 in 10 people who have dry age-related macular degeneration (AMD) go on to develop the wet form of the disease. This advanced stage of the disease is when permanent vision loss can occur. But treatment can save your vision. The earlier you start it, the better.

"We are very fortunate to have treatments for wet AMD now. Before 2005, there weren't any effective treatments. These medications, for the first time in history, allow people to regain vision," says Eleonora Lad, MD, PhD, an associate professor of ophthalmology at Duke University School of Medicine in Durham, NC.

Here's what you should know to ensure you get

treatment for wet AMD as soon as possible.

SPOT SYMPTOMS

When dry AMD starts to convert to wet, if not detected early, the changes in your vision can be sudden. "You might be reading one day, and the next day, you can't. Straight lines may seem bent. You could lose vision at the center of one or both of your eyes. You might have a blurry or blind spot at the center of your field of vision. Colors may not appear as bright. Overall, your vision might seem hazy.

"It affects anything that relies on central vision," Lad says, "so it could cause inability to recognize faces, tell time on a clock, drive—

and these can have a severe effect on your quality of life."

KEEP DOCTOR'S APPOINTMENTS

You and your doctor can detect subtle signs that your AMD is progressing before you lose vision permanently. After you get a diagnosis of AMD, you should see an ophthalmologist at least once a year during the early stages of the disease. Don't skip or delay these appointments.

They are important for monitoring changes in your vision and the progress of your condition. If your AMD progresses, your doctor might recommend more frequent visits.

CHECK YOUR VISION DAILY AT HOME

In early AMD, doctors recommend that between visits you check your vision at home daily with the Amsler grid. You focus on a dot at the center of the grid and check to see if any lines appear to be missing or wavy. You should call your

ophthalmologist if any of these changes occur.

If your dry AMD progresses and puts you at greater risk of wet AMD, your doctor may prescribe a device for daily at-home vision checks. The vision test takes three minutes and sends electronic reports to your doctor.

"If we pick up the disease early with this device or with the grid, patients can start early treatment and have the chance to revert back to their baseline vision," Lad says. "They would maintain the vision they had before converting to wet AMD."

WET AMD

Tips to manage symptoms

By Matt McMillen

Reviewed by Michael W. Smith, MD, WebMD Chief Medical Editor

1 FIND FRIENDS

Join an AMD support group to share experiences with others.

2 GET HELP

Enroll in vision rehab to help you adapt to life with low vision.

3 TAKE YOUR VITAMINS

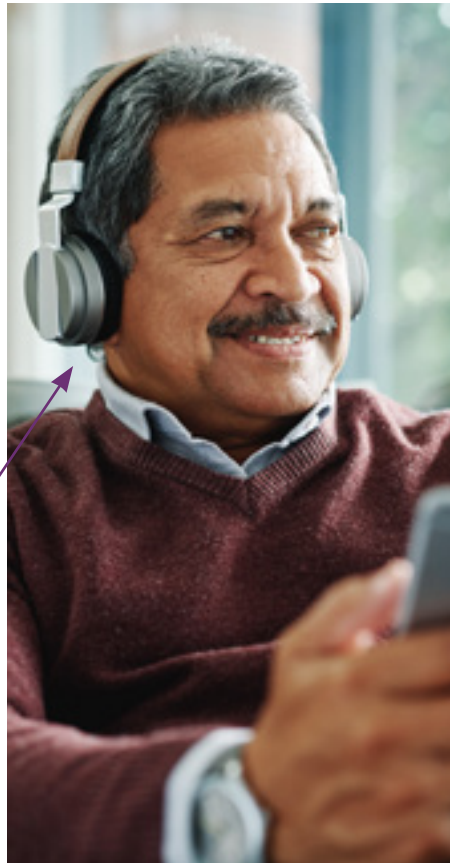
Ask your doctor about AREDS/AREDS2 vitamin supplements, which can slow wet AMD.

4 SUPPORT RESEARCH

Volunteer for an AMD study to advance knowledge and treatments.

5 LEARN TO LISTEN

Try audiobooks and text-to-speech devices to help you read.



6 MONITOR YOUR MOOD

Learn the symptoms of depression and address them with your doctor.

7 PREVENT FALLS

Install handrails on both sides of your stairs.

8 GET ORGANIZED

Always put things like keys in the same place so they're easy to find.

9 STAY HEALTHY

Lose weight and eat well to potentially slow the progression of wet AMD.

10 BREAK THE HABIT

If you smoke, quit. Smoking worsens wet AMD.

EXPERT TIPS

Randy McLaughlin, MD

ophthalmologist, The Ohio State University Wexner Medical Center

"Use your Amsler grid each and every day. This tool, similar to a piece of graph paper with a dot in the middle, allows you to monitor your central vision for any changes. Do the lines appear differently today than yesterday? For example, are they wavy or otherwise distorted rather than straight? If so, contact your retina specialist right away."

Mark Fromer, MD

ophthalmologist, Lenox Hill Hospital, New York City

"Ask your doctor for useful low vision aids. Lighted pocket magnifiers, for example, can be useful for reading mail or price tags. For severe vision loss, get a small, handheld device that can enlarge print and make it easier to read. There are even glasses that utilize artificial intelligence to read mail and recognize faces for individuals with severe visual loss."

Matthew Gorski, MD

ophthalmologist, Northwell Health, Great Neck, NY

"Fortunately, we have medications that work for the wet form of macular degeneration, which don't work for dry macular degeneration. But make sure to get into treatment early, before there is irreversible loss of vision."



ASK YOUR DOCTOR

What are my treatment options?

+ Anti-VEGF drugs are the most common treatments. These medicines slow the growth of new blood vessels under the retina. Less often, doctors use laser surgery or photodynamic (light) therapy to destroy abnormal leaky blood vessels.

How likely is my AMD to progress?

+ Without treatment, abnormal blood vessels will continue to grow under the middle of your retina. You'll gradually develop blind spots and then lose your central vision (although your peripheral vision will remain).

How often do I need to see you for checkups?

+ You'll need injections once a month for the first three months. If the swelling in your retina goes down, you should be able to space out your visits to once every six to eight weeks or longer.

Can any lifestyle changes slow the progress of AMD?

+ A healthy lifestyle won't stop AMD, but it could protect your vision. Don't smoke, because it reduces the blood supply to your eyes. Eat fish and dark leafy greens for their eye-healthy nutrients. Exercise to reduce inflammation.

CHECK-INS

WHAT TO EXPECT AT YOUR NEXT APPOINTMENT

By Stephanie Watson

Reviewed by Alan Kozarsky, MD, WebMD Medical Reviewer

Treatment for the wet form of age-related macular degeneration (AMD) isn't one visit and done. You'll see a lot of your ophthalmologist, both to get the anti-VEGF injections you need to save your sight and to make sure you're responding to treatment.

Plan to visit your eye doctor once every one to three months for injections. Missing a visit or two might not seem like a big deal, but it could compromise your sight. In a 2020 study, people with wet AMD who skipped just a single appointment over a two-year period lost more vision than those who made it to every scheduled visit.

Anti-VEGF shots prevent the formation of new, leaky blood vessels under your retina. A shot in the eye might sound scary, but you'll get numbing anesthetic eye drops so it shouldn't hurt. "Most people will say they felt a little bit of pressure or a pinching sensation, but the injection itself is fast—a second," says Jason Hsu, MD, retina surgeon and co-director of retina research at Wills Eye Hospital in Philadelphia.

During the same visit or in separate appointments, your eye doctor will dilate (widen) your pupils with eye drops and examine your eyes with optical coherence tomography (OCT), which uses light waves to take detailed pictures of your retina. "This test has really revolutionized how we can pick up subtle retinal disease and swelling in the retina," Hsu says. It can tell your doctor whether your treatment is working, or if you need more frequent injections.

If you only have wet AMD in one eye, your doctor will also check the other eye to make sure it hasn't converted to the wet form. You'll likely get a homework assignment in between visits—an Amsler grid, which looks like a rectangle filled with small boxes and a dot in the center.

Every day, cover one eye at a time and look at the grid. The lines should be straight. If they're wavy or blurry, the other eye may have progressed to wet AMD. Call your doctor right away. "If you catch wet macular degeneration early, when your vision is still good, chances are you're going to maintain good vision over the long run," Hsu says.

Your other at-home assignment is to monitor yourself for any eye problems. Although the injections are safe, there's always a slight risk of infection. "Be on the lookout for worsening pain and discomfort, or loss of vision," Hsu says. Also watch for redness.

The injections should improve or at least stabilize your vision. If you lose any sight, call your doctor right away.