#### **GEOGRAPHIC ATROPHY**

LISTEN TO THIS!: Click on 🐠 to access the audio version of this guide.

# the audio version of this sector of this sector of the sec

GOOD TO KNOW: Signs your AMD May Be Progressing Page 8

FIRST PERSON: Adjusting to Life with ga Page 12

FIND SUPPORT: Low-Vision Services Can Help You Page 14



#### SCAN ME

Access this content online. Use your smartphone camera to activate the QR code.

## CONTENTS

#### LISTEN TO THIS!

03 NEWS The latest research

- 07 BY THE NUMBERS Stats and facts
- **OB GOOD TO KNOW** Signs your AMD may be progressing
- **10 HEALTH SMARTS** Managing your GA symptoms
- 12 FIRST PERSON Adjusting to life with GA
- 14 FIND SUPPORT Low-vision services can help you
- 16 TREATMENT SMARTS Know your options





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. 2024 WebMD LLC. All rights reserved.

#### 2) WebMD FOCUS ON | GEOGRAPHIC ATROPHY

THIS CONTENT IS CREATED AND CONTROLLED BY WEBMD'S EDITORIAL STAFF

## THE LATESTON GEOGRAPHIC ATROPHY

1 in 12

Number of people with advanced AMD who don't return to the doctor for recommended eye care—most have advanced dry AMD.

SOURCE: Ophthalmic and Physiological Optics

## THE PROMISE OF AI

You've probably heard of many ways artificial intelligence (AI) is expected to revolutionize the world. You might add early diagnosis of geographic atrophy (GA) to the list. In a new study, researchers used 1,884 eye scans taken from 140 people with dry AMD to train computers to detect early geographic atrophy—a symptom of advanced dry AMD. The AI platform detected GA with near-perfect accuracy from a very early stage and reduced the need for a doctor to verify the results. If you're at risk, this new technology could help doctors diagnose you earlier and get you into vision-sparing treatment faster.

SOURCE: Ophthalmology Science



## Number of AMD cases that include geographic atrophy.

SOURCE: Journal of Clinical Medicine

## Living with geographic atrophy (GA)? Now's the time to act

### Ask your doctor about IZERVAY

#### INDICATION AND IMPORTANT SAFETY INFORMATION

#### What is IZERVAY?

IZERVAY (avacincaptad pegol intravitreal solution) is a prescription eye injection, used to treat geographic atrophy (GA), the advanced form of dry age-related macular degeneration (AMD).

#### What is the most important information I should know about IZERVAY?

#### Do NOT receive IZERVAY if you:

- Have an infection in or around your eye
- Have active swelling in or around your eye that may include pain and redness

#### IZERVAY can cause serious side effects:

- Eye injections like the one for IZERVAY can cause an eye infection (endophthalmitis) or separation of layers of the retina (retinal detachment).
- Call your healthcare provider right away if you have redness of the eye, eye pain, increased

discomfort, worsening eye redness, blurred or decreased vision, an increased number of small specks floating in your vision, flashes of light, or increased sensitivity to light.

- There is a risk of developing wet AMD with IZERVAY. You should report any symptoms (visual distortions such as straight lines seeming bent, deterioration in vision, dark spots, loss of central vision) to your healthcare provider to monitor.
- IZERVAY may cause a temporary increase in eye pressure within minutes after the injection. Your healthcare provider will monitor this after each injection.

#### Before receiving IZERVAY tell your healthcare provider about all of your medical conditions including if you:

• Have a history of seeing flashes of light or small specks floating in your vision and if you have a sudden increase of size and number of these specks.

#### izervay (avacincaptad pegol intravitreal solution) 2 mg

#### **IMPORTANT SAFETY INFORMATION (CONT'D)**

- Have high pressure in the eye or if you have glaucoma.
- Are pregnant or breastfeeding, think you may be pregnant, or are planning to have a baby, ask your doctor for advice before taking this medicine.
- Are taking any medications, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Tell your healthcare provider about any medicine you take.

#### What should I avoid while receiving **IZERVAY?**

• Your vision may be impaired after receiving an eye injection or after an eye exam. Do not drive or use machinery until your vision has recovered sufficiently.

Copyright © 2024 Astellas Pharma Inc. or its affiliates. All trademarks are the property of their respecitve owners. US-AP-2400222 07/24

#### What are the most common side effects of IZERVAY?



- Blood in the white of the eye
- Increase in eye pressure
- Blurred vision
- Wet age-related macular degeneration
- These are not all the possible side effects of IZERVAY. Tell your healthcare provider about any side effect that bothers you or that does not go away.
- Call your healthcare provider for medical advice about side effects. You may report side effects to the FDA at **1-800-FDA-1088** or www.fda.gov/medwatch
- Please see next page for Brief Summary of **Prescribing Information**



#### **Prescription Drug Facts**

#### **Active Ingredient**

Purpose

Rx Only

IZERVAY (avacincaptad pegol intravitreal solution) ......

#### Use

IZERVAY (ahy-zer-vay) is a prescription eye injection given by an eye care professional. IZERVAY is used to treat geographic atrophy (GA), the advanced form of dry age-related macular degeneration (AMD).

#### Do not receive treatment with IZERVAY if you:

■ have an infection in or around your eye ■ have active swelling in or around your eye that may include pain and redness

#### Warnings

Before you are treated with IZERVAY, tell your healthcare provider about all of your medical conditions, including if you:

Area history of seeing flashes of light or small specks floating in your vision and if you have a sudden increase of size and number of these specks A have high pressure in the eye or if you have glaucoma A are pregnant or breastfeeding, think you may be pregnant, or are planning to have a baby. Ask your doctor for advice before taking this medicine. medications, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Tell your healthcare provider about any medicine you take.

#### Serious Side Effects

Eye injections like the one for IZERVAY can cause an eye infection (endophthalmitis) or separation of layers of the retina (retinal detachment). ■ Call your healthcare provider right away if you have redness of the eye, eye pain, increased discomfort, worsening eye redness, blurred or decreased vision, an increased number of small specks floating in your vision, flashes of light, or increased sensitivity to light. 🔳 There is a risk of developing wet AMD with IZERVAY. You should report any symptoms (visual distortions such as straight lines seeming bent, deterioration in vision, dark spots, loss of central vision) to your healthcare provider to monitor. I IZERVAY may cause a temporary increase in eye pressure within minutes after the injection. Your healthcare provider will monitor this after each injection.

#### What should I avoid while receiving IZERVAY?

Your vision may be impaired after receiving an eye injection or after an eye exam. Do not drive or use machinery until your vision has recovered sufficiently.

#### Most Common Side Effects

■ blood in the white of the eye ■ increase in eye pressure ■ blurred vision ■ wet age-related macular degeneration

Tell your healthcare provider if you have any side effect that bothers you or that does not go away. These are not all the possible side effects of IZERVAY.

Call your doctor for medical advice about side effects. You may report side effects to the FDA at 1-800-FDA-1088 or to Astellas Pharma at 1-800-727-7003.

This information is not comprehensive. For more information, talk with your eye care professional or visit www.izervay.com.

Copyright © 2024 Astellas Pharma Inc. or its affiliates. All trademarks are the property of their respective owners.

## STATS & FACTS

By Sonya Collins Reviewed by Whitney Seltman, OD, WebMD Medical Reviewer





Age at which risk for agerelated macular degeneration, which can lead to geographic atrophy, starts to rise.



Number of cases of legal blindness in North America caused by geographic atrophy.





SOURCES: BrightFocus Foundation, Journal of Managed Care and Specialty Pharmacy, Johns Hopkins Medicine

7

## SIGNS YOUR AMD MAY BE PROGRESSING

LISTEN TO THIS!

#### WHAT TO WATCH FOR

**By** Rachel Reiff Ellis **Reviewed by** Whitney Seltman, OD, WebMD Medical Reviewer

Age-related macular degeneration (AMD) happens very slowly in some people and faster in others. Because it can be unpredictable, it's good to know the signs of AMD that is progressing.

#### WHAT TO LOOK FOR

As you monitor your vision with AMD, there are a couple of symptoms that your doctor will want to know about right away.



You may also start having a harder time seeing in low-light environments. And if both eyes are affected by AMD, you may notice other things, too.

"Often people encounter difficulties in reading, driving, and discerning fine details, such as facial expressions," says

#### **8** WebMD FOCUS ON | GEOGRAPHIC ATROPHY

THIS CONTENT IS CREATED AND CONTROLLED BY WEBMD'S EDITORIAL STAFF

#### **STAGES OF AMD**

#### A primer on important terms:

Age-related macular degeneration (AMD) has three phases: Early, Intermediate, and Advanced.

**Dry AMD** can often be interchanged for Early and Intermediate AMD.

**There are two forms of Advanced AMD:** Neovascular AMD (wet) and/or Geographic Atrophy.

Monika Fleckenstein, MD, professor of ophthalmology and visual sciences at the John A. Moran Eye Center at University of Utah Health in Salt Lake City.

If you've had symptoms of AMD in only one eye for a while, you may not notice them happening in the other eye, which can delay treatment, Fleckenstein says.

"It's crucial to emphasize the importance of regular visits to an eye care professional for comprehensive evaluations," Fleckenstein says. She also recommends periodically covering one eye to see for yourself if there are subtle changes in your "normal" eye.

#### **NEXT STEPS**

If you are having symptoms of worsening AMD, it's time for an exam from an ophthalmologist, and ideally a retinal specialist.

During the exam, they'll dilate your eyes and look at your retina and your macula. You may have tests such as an optical coherence tomography (OCT), fundus photography, and a dye test called a fluorescein angiogram where your doctor checks for the presence of abnormal blood vessels.

"If the AMD has progressed to the 'wet' form with the development of abnormal blood vessels, the retina specialist may recommend treatment with medications, which are injected directly into the eye to stop these vessels," Kiss says.

If the doctor finds that the AMD has progressed to geographic atrophy, your doctor will also recommend a different type of injection to help slow the progression.

Fleckenstein notes that even though advanced AMD can lead to significant vision impairment and even legal blindness, you're not likely to lose your vision completely.

"While AMD primarily affects central vision, be reassured that complete blindness, where vision turns entirely black, is not a typical outcome," Fleckenstein says.

(9

#### HEALTH SMARTS



SCAN ME)

Read "An Expert's Perspective: Geographic Atrophy." Use your smartphone camera to activate the QR code.

## MANAGING YOUR GA SYMPTOMS EXPERTS WEIGH IN WITH TOP TIPS

**By** Rachel Reiff Ellis **Reviewed by** Whitney Seltman, OD, WebMD Medical Reviewer

When you live with geographic atrophy (GA), it's common to have trouble with your central vision. This can make it hard to read, cook, recognize faces, and drive. Numbers and letters often disappear as you read them, you may have trouble seeing in dim light, and colors may not be as sharp as they once were.

"Atrophy means thinning, and whenever you have an area of retina that's thinning or thinned [as in geographic atrophy], then that particular patch of retina does not really work," says T.Y. Alvin Liu, MD, founding director of the Wilmer Precision Ophthalmology Center of Excellence at the Johns Hopkins University School of Medicine in Maryland. "That's when symptoms start."

#### WHAT YOU CAN DO

Regular, dilated eye exams are crucial for monitoring your eye health.

"The most important thing to do, especially if you know that you have dry AMD, is get a regular checkup," Liu says.

You can also use an Amsler grid (see p. 11) at home to monitor your vision. This is a simple black and white grid you look at once a day to see if you notice changes in your vision.

"You may note that you have mild waviness of your vision," says Stephen Smith, MD, clinical assistant professor of ophthalmology at

#### **LOW-VISION AIDS**

These tools can help you function better with GA.

**For reading:** Magnifying devices, large print, closed circuit TV, special computer software

For seeing at a distance: Telescopic lenses

**For overall sight:** Specialized lighting and lights

(10)



After speaking with a retina specialist, people may use the Amsler grid (above) to test for vision problems.

Stanford Byers Eye Institute at Stanford Medicine in Palo Alto, CA. Some people may also see dark, blank, or blurry spots.

"As the disease progresses, it can become harder to see fine details and the waviness can increase," Smith says.

#### LIVING WITH LOW VISION

While you can't reverse the damage GA causes, you can do some things to help protect your eyes and potentially slow the progress of your disease.

Your doctor can recommend either an occupational therapist, an orientation and mobility specialist, or a low-vision specialist near you. These vision rehabilitation specialists can help teach you skills and introduce tools to help you keep your independence by maximizing the vision you do have. You can learn tips for home and work.

Be sure to also ask your doctor about taking vitamins for your GA (AREDS). While they can't reverse AMD damage, they can lower your risk of dry AMD becoming wet AMD.

Most importantly, pay attention to your vision, and report any changes to your doctor as soon as possible.

"You're never really supposed to have missing spots in your vision, so when you see that, even if it's subtle—and it always starts in a very subtle fashion that's absolutely not normal, and that should get checked out," Liu says.

#### **EYE HEALTH BOOSTERS**

Preventative practices for better vision.

- + Don't smoke.
- + Get regular exercise.
- + Wear sunglasses outside.
- + Eat antioxidant-rich foods.





#### **ADJUSTING TO LIFE WITH GA**

**By** R.W. Howden **Reviewed by** Whitney Seltman, OD, WebMD Medical Reviewer

I was at my mom's house visiting one day and opened one eye in the middle of the night to check the bedside clock. It was about 18 inches away. One of the lights of a numeral was blinking. I had never seen that happen to a light. I leaned in closer to look, and the blinking quit. It was clear the problem was not with the clock but with my eye.

#### YOU WON'T NEED A GUIDE DOG

Once home, I scheduled an appointment with my ophthalmologist. He said I had AMD and was

going blind! I promptly got a second opinion from someone with a better bedside manner. My new doctor took the time to explain what was happening. He said I had dry AMD and geographic atrophy (GA). He assured me that it might take a long time to develop something like blindness and I would probably never need a guide dog. Nothing against dogs, but that was a relief to some extent.

I maintained good central vision for the first couple of years. But then my life began to change. Many of my favorite activities like hunting and skeet shooting had to end. Reading, watching TV, and cooking became difficult, but I was terrified of getting an injection in my eye.

#### **TAKING A SHOT**

After nearly 10 years with eye issues, I faced

my fear and went in for the injections. While it's not a cure, the treatment is designed to slow it down. My retina specialist is happy with my numbers. One of my friends in Texas is doing very well with his treatments and his GA has stopped or seriously stalled. That gives me hope.

I do wish I had started injections sooner. The prep can be annoying, but the shots are not that bad. My doctor is about an hour away, but he's really good.

#### **LIFE LOOKS DIFFERENT**

I'm encouraged about new treatments that are coming out for AMD and GA. I pray for a diagnostic test in the future, maybe a pill instead of injections. I'm encouraged to hear about current stem cell research toward a cure. For now, my friends



#### R.W.'s TIPS

- + Do something now! Don't delay treatment.
- + Find people to help you with daily tasks.
- + Learn about technology (like the magnifying glass app) to help you.

are my biggest support. I can't drive, so they take me grocery shopping each Saturday, to golf twice per week, and with them on trips. As a widower, I am so grateful for them. I may not have a man's best friend on four legs, but I have many people who walk beside me every day.

## MAKE THE MOST OF YOUR SIGHT



#### SCAN ME )

Watch "Hope's In Sight." Use your smartphone camera to activate the OR code.

#### LOW-VISION SERVICES CAN HELP YOU

**By** Kendall K. Morgan **Reviewed by** Whitney Seltman, OD, WebMD Medical Reviewer

Geographic atrophy treatment from your primary eye specialist can help you slow down your disease progression and avoid more vision loss. But for more support adapting to your diagnosis and the vision loss you've already had, Leannza Tang, OD, an optometrist at the New York Eye and Ear Infirmary of Mount Sinai in New York City, recommends finding a specialist in low vision or vision rehabilitation services.

#### **TOOLS OF THE TRADE**

To get the support you need, think through how changes in your sight most affect you and where you could use help.

"One of the first things we want to figure out is what they're having difficulty with," Tang says.

For help with small print, for example, your low-vision specialist can help you try various magnifying tools. These come in many strengths. A standard handheld magnifier is helpful to read a medication label, Tang says. If you want to read a book, you can try a more sophisticated electronic device that, when placed over a page, uses a camera to allow you to zoom in and out. For seeing at a distance, try telescopic glasses.

#### **SEE IN A NEW WAY**

Training in a tech-

#### **MORE SUPPORTS**

For additional assistance, seek help from friends and family, and consider joining a support group. For more tips and resources, reach out to organizations, including:

- + Services in your state for blind and visually impaired people
- + BrightFocus.org
- + FightingBlindness.org
- + APHConnectCenter.org/VisionAware
- + MDSupport.org

Inclusion of these organizations does not constitute an endorsement by WebMD and no endorsement is implied.

nique known as "eccentric viewing" can help you learn to direct your gaze in new ways to avoid areas where you can't see. For instance, you may see a person's face better by looking toward the top of their head or at their right ear instead of into their eyes.

"Some people naturally figure this out," Tang says. "But others come in and are looking all around. What we can do is help them find the most appropriate spot to use and then we can have them back for training sessions to practice using that spot more consistently. The goal is, in the end, that they don't really have to think about it."

#### TREATMENT SMARTS



SCAN ME <sup>)</sup> Read "Why I Decided to Treat My Geographic Atrophy." Use your smartphone camera to activate the QR code.

## KNOW YOUR OPTIONS THERAPIES TO HELP MANAGE YOUR GA

**By** Rachel Reiff Ellis **Reviewed by** Whitney Seltman, OD, WebMD Medical Reviewer

It's an exciting time for geographic atrophy (GA) treatment. The FDA recently approved two first-of-their-kind drugs to treat it.

#### **NEW MEDICATIONS**

These drugs are complement inhibitors, which means they target your immune system's complement pathway. This pathway is a complex process that enhances your body's defenses. When the balance is off in this process, it can cause disease, like macular degeneration. The drugs shut down parts of the pathway to help keep disease progression at bay.

You get the medications once every 1 to 2 months as an injection directly into your eye from a retina specialist. It can take some time before the treatment has an effect.

Your doctor may see the potential effects after at least 6 months.

#### ANTIOXIDANT SUPPLEMENTS

Some doctors use supplements containing vitamin C, vitamin E, betacarotene, and zinc to treat dry AMD. If you have intermediate AMD in one or both eyes, special dietary supplements called AREDS 2 can help slow down vision loss.

#### IMPLANTABLE MINIATURE TELESCOPE (IMT)

A surgeon can replace the lens in your eye with a device that magnifies objects in your central vision. This miniature telescope focuses images in your central vision on other areas of your retina that are still working.

#### **FUTURE OF TREATMENT**

"There are other complement pathway inhibitors, both intravitreal and oral medications. that are being developed," says Leo A. Kim, MD, PhD, retina specialist at Massachusetts Eve and Ear and associate professor of ophthalmology at Harvard Medical School in Boston. "Also, researchers are looking into the repurposing of existing drugs to treat GA, and there are also cell replacement therapies being developed."