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# FOCUS ON

SUMMER 2023



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WET AMD QUESTIONS**

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SCAN ME

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# THE LATEST ON

## WET AMD AND DME

# 1 in 18

Number of people with diabetes who have diabetic macular edema.

SOURCE: *Survey of Ophthalmology*

## LITMUS TEST FOR AMD TREATMENT PLAN

Standard treatment for wet AMD involves routine eye injections. But they may not be necessary for everyone. Doctors aren't sure how to tell who needs the treatment and who could hold off. But researchers may have discovered a reliable test. In a small study of eye fluid taken from 38 people with wet AMD, researchers found higher levels of a protein called "angiopoietin-like 4" in people who required monthly injections compared to those who could go longer without injections or even stop them altogether. The protein may serve as a measure of who has stable disease and whose disease is progressing.

SOURCE: *JCI Insight*

## AI COULD WEIGH IN ON DME CARE

Doctors typically start people with diabetic macular edema on medications called anti-VEGF agents. But, like any medicine, these work better in some people than others. Soon doctors may use artificial intelligence to predict who will respond to the treatment. Researchers have trained computers to identify the best candidates for anti-VEGF injections by reviewing their retinal scans. The researchers fed the computers retinal images from 127 patients before treatment and after three injections. The computers picked up key characteristics of the pretreatment eyes that eventually benefited from treatment and those that didn't. Doctors may one day use this technology to help choose a first treatment option.

SOURCE: *Biomedical Optics Express*

# 9 in 10

Cases of legal blindness caused by wet AMD.

SOURCE: BrightFocus Foundation



## **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, DME,  
DR, and MEfRVO. IQVIA US Medical  
claims: Number of injections  
administered Q4 2020 - Q3 2021;  
Data on File.

  
**57MM+**  
TREATMENTS  
GIVEN WORLDWIDE†

†Across all indications  
since 2011; Data on File.

Backed by **8 CLINICAL  
STUDIES** and **11+ YEARS**  
of real-world experience.  
FDA-approved since 2011.

# YOUR EYES ARE SO IMPORTANT. FIGHT FOR THEM WITH EYLEA.

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](http://www.fda.gov/medwatch), or call 1-800-FDA-1088.**

**Please see the Consumer Brief Summary on the adjacent page.**

**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)
- Retinopathy of Prematurity (ROP)

**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
- In infants with ROP, treatment with EYLEA will need extended periods of ROP monitoring.
- 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

**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 in adults 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

The most common side effects in pre-term infants with ROP include

- Separation of the retina from the back of the eye
- Increased redness in the eye
- Increased pressure in the eye

Side effects that occurred in adults are considered applicable to pre-term infants with ROP, though not all were seen in clinical studies. 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 or your baby 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](http://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). In infants with ROP, only the glass vial may be used for a single injection into the eye, which is 0.01 mL (or 0.4 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](http://EYLEA.com).

**REGENERON**<sup>®</sup>**Manufactured by:**

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

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Issue Date: February 2023

Initial U.S. Approval: 2011

based on the February 2023 EYLEA<sup>®</sup> (aflibercept) injection  
full Prescribing information.

02/2023

EYL.23.02.0029

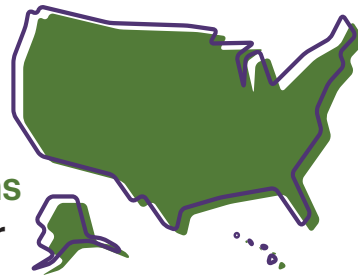
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# STATS & FACTS

By Sonya Collins

Reviewed by Brunilda Nazario, MD, WebMD Chief Physician Editor, Medical Affairs

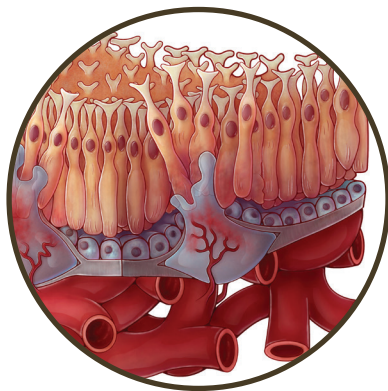
>75,000



Estimated number of Americans who develop diabetic macular edema (DME) every year.

19.8 million

Estimated number of Americans over 40 who have age-related macular degeneration.



1 in 10

People with age-related macular degeneration who have the “wet” type.



UP TO 1 in 18

Estimated number of people with type 2 diabetes who have DME.

UP TO 1 in 7



Estimated number of people with type 1 diabetes who have DME.

SOURCES: Survey of Ophthalmology, National Library of Medicine, BrightFocus Foundation, CDC



# MY NEW NORMAL

## GETTING USED TO LIFE WITH WET AMD

By Rob Wing

Reviewed by Brunilda Nazario, MD,  
WebMD Chief Physician Editor, Medical Affairs

The vision in my left eye was always a little better than the vision in my right. But in April 2020, when I was 59, I suddenly noticed that the vision in my right eye was a

lot worse. I went to my optometrist for an eye exam. He thought I might have a detached retina and referred me to an ophthalmologist. It was the ophthalmologist who diagnosed me with wet macular degeneration. He started me on eye injections that day.

I'd heard of macular degeneration but never "wet" macular degeneration. I learned everything I could about it and about lifestyle changes and technology that might help me.

The vision in my right eye improved after starting the injections. But





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grandchildren, my new doctor said it was time to switch me to a new medicine because we weren't getting the most out of the other one. He said, "There's no reason for us not to do the best we can."

He says he's seeing improvement in the fluid in my eyes. If we can just keep it from getting worse, I'll count myself as blessed.

How well I see depends on the light. I have a little dog, and I know he's with me, but sometimes I can't see him. Sometimes I can't make out my own face in the mirror. I just see a person there, but to see any detail, I have to get very close.

Technology helps me. The text on my phone is blown up as large as it will go. I also use speech-to-text. On social media, I can click a button and it will read me anything that I can't see.

Social media has



## ROB'S TIPS

- Follow all your doctor's recommendations.
- Learn everything you can about the condition.
- Learn about lifestyle changes.
- Look into assistive technology.
- Don't wait till your next appointment to tell your doctor about any changes.

helped so much. I'm in a Facebook group for macular degeneration. Sometimes just knowing that other people are going through the same thing can make you feel better.

JOHN LAMB/VIA GETTY IMAGES; INSET PHOTO COURTESY OF ROB WING

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# Q&A

## INFORMATION TO KNOW AT YOUR WET AMD APPOINTMENTS

By Rachel Reiff Ellis

Reviewed by Whitney Seltman, OD,  
WebMD Medical Reviewer

**David Cupp, MD, an ophthalmologist at Retinal Consultants Medical Group in Sacramento, CA, shares some facts about wet AMD.**

### ***Q. How does wet AMD cause problems with my vision?***

Wet AMD happens when new fragile blood vessels grow underneath your retina, which is the layer of tissue at the back of your eye that's sensitive to light. Specifically, these new blood vessels grow on the central part of your retina, a spot called the macula. These blood vessels can bleed or leak fluid, which blurs or distorts your vision. If you don't treat it, it can lead to a blind spot in your vision.

### ***Q. Will I need injections to treat my wet AMD?***

The most common and effective

treatment we have right now to slow new blood vessel growth in the macula are drugs that block a molecule called VEGF. We inject these anti-VEGF drugs directly into your eye about once a month. Many people have anxiety about a needle to the eye, but it's really not as bad as it sounds! Other treatments also target and block the actions of another molecule called angiopoietin-2 (ANG-2). Your eye will be numbed first, and the needle is very thin and small.

### ***Q. How quickly will I lose my vision?***

Like many conditions, the earlier your wet AMD is caught, the better your prognosis. Without treatment, it moves very quickly and may take weeks to months before permanent vision loss happens. More commonly, we see people in the first weeks of vision loss and we're able to start treatment to stall that vision loss.

### ***Q. Should I look into clinical trials?***

Research on AMD is always evolving, and new drugs for wet AMD are in clinical trial phases as we speak, with more to come. Your ophthalmologist can help figure out if you're eligible to participate in a clinical trial. It's possible doing so could help your vision and also help pave the way for new treatments for others.

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# Q&A

## WHAT TO ASK YOUR DOCTOR AT YOUR NEXT DME APPOINTMENT

By Rachel Reiff Ellis

Reviewed by Whitney Seltman, OD,  
WebMD Medical Reviewer

**Mark R. Barakat, MD, an ophthalmologist with Retinal Consultants of Arizona in Phoenix, provides some basics about this eye complication.**

### ***Q. How does DME happen?***

Diabetic macular edema (DME) is a condition caused by the swelling of your macula, or the central part of your retina. Too much blood sugar can damage blood vessels over time and cause leakage, and this swells the macula. The blood vessels leak fluid and blood into your retina and impact your vision.

### ***Q. What symptoms will I have?***

A common sign of DME is vision that gets blurry in one eye and stays blurry, no matter what time of day or what visual activity you're doing.

It usually gets worse over time without treatment. You may also notice things look wavy, dull, or faded.

### ***Q. What will treatment look like?***

We have several options for treating DME, including laser treatment called focal coagulation that burns the leaking vessels to stop bleeding. Also, injections to the eye help slow growth of abnormal blood vessels in the retina, reduce swelling of the macula, slow vision loss, and perhaps improve vision. But the most important strategy is to control your blood sugar and blood pressure. It's not always the most exciting answer, but it's the mainstay of treatment. In the same vein, it's crucial that you come in for regular eye appointments. Early intervention can make a much larger impact than if you're playing catchup.

### ***Q. Can vision loss from DME be reversed?***

DME vision loss can often be reversed. In fact, almost two-thirds of people with the condition will have good visual recovery by treating their DME. The most common reason for vision loss is that their retina is simply swollen, and we're good at getting the swelling out of the retina.

# KNOW YOUR OPTIONS FOR WET AMD

 LISTEN TO THIS!



## FROM MEDICATIONS TO SURGERY, FIND OUT WHAT'S RIGHT FOR YOU

By Kendall K. Morgan

Reviewed by Whitney Seltman, OD,  
WebMD Medical Reviewer

In wet AMD, leaky blood vessels grow under the macula at the center of your retina. You'll have treatment decisions to make before you lose more vision.

“A protein called vascular endo-

thelial growth factor, or VEGF, causes this abnormal growth and leakage,” explains Sunir J. Garg, an ophthalmologist at Wills Eye Hospital in Philadelphia and clinical spokesperson for the American Academy of Ophthalmology. Most often, to treat wet AMD, retina specialists use medications called anti-VEGF drugs, Garg says.

### HOW TREATMENT WORKS

Anti-VEGF medicines help stop vessels from leaking. They also can

THOMAS NORTH/CUT/VIA GETTY IMAGES



shrink the abnormal vessels. Other medications inhibit angiopoietin-2 (ANG-2), another protein involved in blood vessel formation, and make them less sensitive to the effects of VEGF.

“This can often slow or stop worsening of the vision and can often help improve vision,” Garg says.

### **KNOW YOUR OPTIONS**

You’ll have several options to choose from. Your doctor will deliver them to your eye using a slender needle.

Ask your doctor about any differences

among these drugs, including how well they work and their costs. Keep in mind that some medicines that cost more may also last longer.

### **WILL I NEED SURGERY?**

Injected medicines are the main treatment for wet AMD. But in some cases, your doctor may recommend laser surgery.

“In this procedure, your ophthalmologist shines a laser light beam on the abnormal blood vessels to slow the disease and decrease abnormal blood vessel growth,” Garg says.

### **ASK YOUR DOCTOR**

Don’t hesitate to ask your doctor any questions about treatments you have.

“Your ophthalmologist is your best resource for questions regarding your [eye] health and treatment plan,” Garg says.



A four-panel vineyard painting titled, "Through My Eyes" by Mark Rouse.

# MY JOURNEY WITH DME

## FROM DIAGNOSIS TO RECOVERY

By Mark Rouse

Reviewed by Brunilda Nazario, MD,  
WebMD Chief Physician Editor, Medical Affairs

I lived for more than 20 years with diabetes without any major issues—or so I thought. I was enjoying life in Indiana as a married father of four, a data analyst, and a painter. Then a few years ago, everything changed.

### AN UNEXPECTED DIAGNOSIS

My vision started to get blurry gradually. I figured I was just

getting older. I planned to go in to get some new glasses and everything would be fine. Unfortunately, when I went in, they said I needed to see an ophthalmologist right away! The first one I tried didn't have an appointment for 2 weeks. Fortunately, another doctor was able to see me immediately. I believe if I waited longer, I would have had irreversible retina damage.

### THE ROAD TO RECOVERY

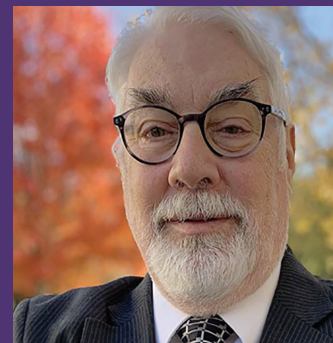
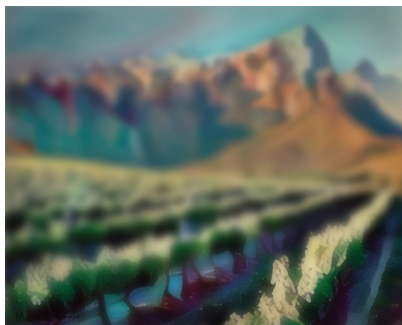
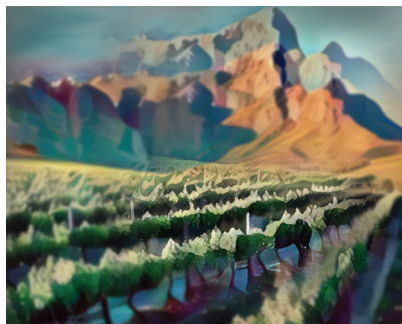
After doing some testing, my doctor said the thing no artist wants to hear: "You're legally blind." He was honest with me and said that he might be able to keep what's left of my vision from getting worse, but there were no guarantees. He immediately started treating me with injections

in my eye that day. It was a frightening thing, but not as bad as the alternative. The shots in my eye didn't hurt, but by then, I wasn't able to drive, do my artwork, or read a book.

The injections in my eye helped stop the bleeding into my eye. I was getting the shots every 2 weeks to start and then down to a month. Eventually, he was able to do surgery in each eye. Around that time is when I really noticed my vision starting to improve. A while later, I got a vitrectomy [a procedure where blood and scar tissue are removed from the eye's retina, and where the retina is repaired when it's detached].

### A BEAUTIFUL SCENE

I had to stop painting for about 3 years. Then in 2018, I started experimenting again. My vision recovered so much that I was feel-



### MARK'S TIPS

- Get your eyes checked regularly if you have diabetes.
- Be patient. Improvement from treatments takes time.
- Find your motivation. For me? My art and seeing my grandkids.

ing confident enough to enter some art shows. I was so grateful to my doctor. He gave me my gift of sight back and I wanted to give him a gift. I learned that he loved Northern California, so I gifted him a painting of a vineyard. I also gave him a four-panel print of how my vision improved over time.

Today, I continue to paint things I love. My vision is so much better. I've made adjustments like connecting my laptop to a 55-inch screen, I found an app that turns my phone into a magnifying glass, and I keep up with my eye appointments. I'm so happy to have my vision and that I'm able to paint again.

# AVAILABLE OPTIONS FOR DME

## PARTNER WITH YOUR DOCTOR TO FIND AN IDEAL TREATMENT PLAN FOR YOU

By Kendall K. Morgan

Reviewed by Whitney Seltman, OD, WebMD Medical Reviewer

To treat diabetic macular edema (DME), your eye specialist will help you make the best treatment plan for you, says Ninel Z. Gregori, MD, an ophthalmologist at the University of Miami's Bascom Palmer Eye Institute in Miami, FL, and clinical spokesperson for the American Academy of Ophthalmology.

### TARGETED TREATMENT

A protein called vascular endothelial growth factor (VEGF), which is the main target of treatments for wet age-related macular degeneration (AMD), also plays an important role in DME.

There are multiple highly effec-

tive drugs used for treating eye disease, including DME, Gregori says.

### CONSIDER ALTERNATIVES

You'll have a series of injections, each lasting weeks to months.

Steroids may also help with your DME. Your doctor may deliver them in an injection or slow-release implant. Your eye doctor also may recommend eye drops.

### WILL I NEED SURGERY?

Ask your doctor if you need laser surgery to seal leaky vessels and help stabilize your vision.

If gel inside your eye is pulling on your macula, Gregori says you may need another type of surgery known as a vitrectomy. In this procedure, a tiny instrument removes vitreous, or gel in your eye, and scar tissue, so your macula can return to its usual shape.

### CONTROL YOUR DIABETES

Take steps to manage your diabetes and any other health conditions, too.

"It is paramount to work with your internist or endocrinologist to improve blood sugar and blood pressure control, which will make your eyes healthier long-term," Gregori says.