Geographic Atrophy (GA)

What is Geographic Atrophy?

Geographic atrophy (GA) is an advanced and severe form of dry age-related macular degeneration (AMD). In GA, small clusters of cells degenerate and die ("atrophy").

On images, these regions of dead and dying cells resemble a map, hence the term geographic atrophy. AMD is a disease that damages photoreceptors, light-sensing nerve cells in the retina. AMD is a leading cause of vision loss among older adults. Because it causes damage (or "degeneration") to cells of the macula, at the center of the eye, it blurs central, focused vision, making it harder to drive, read, cook, and recognize faces.

What are the stages of AMD?

Early and Intermediate Stage (Dry AMD)

AMD develops slowly, but there are signs that retinal cells have been weakened by age and other factors. One sign may be drusen, fatty deposits in/near the retina. At this stage, the only recommended treatment is AREDS 2 eye supplements.

Yellow deposits called drusen form and accumulate under the retina.

Drusen leads to cell death, resulting in loss of clear, straight-ahead vision.

Geographic Atrophy

(Dry AMD)

Advanced AMD can take the form of geographic atrophy in which small clusters of cells degenerate and die.

Advanced Stage

(Wet AMD)

Advanced AMD can also take the form of wet AMD. In wet AMD, fragile, leaky blood vessels grow near the retina, damaging cells. A growing number of treatments are available. Without treatment, wet AMD can cause vision loss.

Patch of cell atrophy.

Leaky blood vessels in the macula can cause swelling, damage, or vision loss.
Diagnosing GA

GA is diagnosed during a dilated eye exam, when an ophthalmologist or another type of retinal specialist uses imaging technology to examine the back of the eye. In a dilated exam, GA appears as a patch of retina missing its dark pigment.

Living Well with GA

Despite its severity, AMD usually doesn’t affect both eyes equally. Many people find they can adapt and function by making the most of their remaining vision. Specially trained low vision therapists can help with daily life functions.

To preserve remaining vision, it’s important to protect eye health:

- If you are smoker, stop right away
- Eat a healthy diet rich with antioxidants and omega-3 such as fish, whole grains and dark leafy greens
- Exercise regularly
- Ask your eye doctor if the AREDS2 formula of vitamin and mineral would be beneficial
- Get regular, dilated eye exams and use an Amsler grid to monitor your vision

Treatments for GA

While there is currently no approved treatment for GA, there are several promising treatments in clinical trials. And BrightFocus is funding major scientific projects to develop ways to manage, treat, and prevent the disease. To learn more about our research, click here. For more information on clinical trials, click here.

Symptoms of Geographic Atrophy

- Difficulty reading in dim lighting situations
- Central vision loss
- Black spot in central vision
- Slower reading speed
- Glare

Resources

Information about GA
Visit brightfocus.org

BrightFocus® Chats
Free, monthly discussions about AMD and GA with leaders in vision research and care that you can attend by phone or on your streaming device.

To be notified/register for upcoming chats, listen to past programs, or read the transcripts, click here.

AMD Community Circle
Join our monthly Zoom meeting for people with AMD to share tips and ask questions.

Clinical Trials: Your Questions Answered
A BrightFocus publication answering all your questions about clinical trials. Read it online, or request by calling 1-800-437-2423.

Clinical Trials Finder