



# Top Cause of Blindness In Seniors

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## Where did you receive your schooling and training?

I completed my ophthalmology residency at Johns Hopkins Hospital, where I also served as chief resident. I then completed a medical and surgical retinal fellowship at Duke University.

After training, I joined the faculty at Johns Hopkins, where I served as the assistant chief of service and director of the ocular trauma service. Prior to joining Retina Consultants of Hawaii in 2006, I was a partner in a large retina practice in Long Island, N.Y., for five years.

## What is age-related macular degeneration?

Age-related macular degeneration (AMD) is the leading cause of blindness in people over the age of 60 in the United States. It is a chronic disease that attacks the macula, the part of the retina responsible for one's best vision. Patients lose their central vision but maintain their peripheral vision.

There are two different types of AMD: dry and wet. Dry AMD, the more common type of macular degeneration, is characterized by deposits of waste material called drusen in the retina.

As this disease progresses, the retina begins to atrophy or die off, resulting in loss of central vision. In wet AMD, there are abnormal blood vessels that begin to grow into the macula. These

vessels tend to bleed and leak, and if left untreated, lead to scarring and irreversible loss of vision.

## Do younger people get macular degeneration?

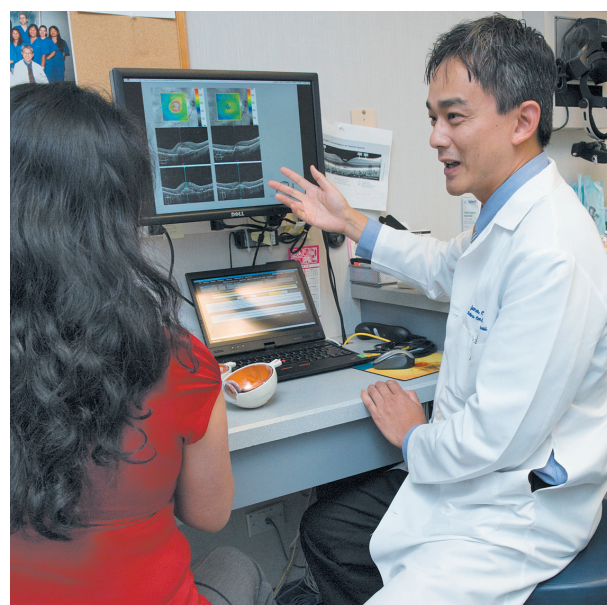
Yes. Although the most common type of macular degeneration is the age-related type, there are other hereditary forms of macular degeneration that can affect patients as young as in their 20s.

## What are the symptoms of macular degeneration?

In the early stages, patients will have blurred vision or see wavy lines. In advanced stages, patients can develop large blind spots in their central vision. One of my patients describes her experience as walking around with a small plate in front of her face that blocks all of her central vision. She can see her friends' ears, but not their eyes or nose. AMD is a devastating disease that robs people of their independence by taking away their ability to read, drive or perform any activity requiring fine details.

## At what point should someone come in to get checked for macular degeneration?

There are no outward signs of AMD. That is unfortunately why many patients have advanced AMD by the time they come to see us. Many of my patients will tell me that they did not seek im-



Dr. James Lai shows a patient diagrams of the eye to explain macular degeneration | Photo by Rachel Breit rbreit@midweek.com

mediate medical attention because they thought their blurred vision was from their cataract or from their need for new glasses.

AMD causes more cases of blindness in the older population than any other eye condition. In the case of wet AMD, if it is caught and treated early enough, patients have an excellent chance of keeping their good vision. If patients are having blurred vision, don't delay in seeing your eye doctor.

If patients are suspected of having AMD, they should have a dilated retina exam. By looking in the back of a patient's eyes, their eye doctor will be able to recognize the telltale signs of AMD. Based on the findings, patients can be referred to a retinal specialist as needed for further testing and treatment.

## What treatments are available?

There currently is no available treatment to reverse dry AMD. However, our practice currently is one of only a few centers in the country selected to participate in a novel treatment for dry AMD. As for treating wet AMD, the gold standard is to inject directly into the eye a medicine (Lucentis, Eylea or Avastin) that attacks the bad blood vessels, causing them to shrink away.

The FDA has approved the use of an implantable miniature telescope which can improve the central vision in a small number of patients with end stage AMD. It works by magnifying images on regions of healthy retina. This device is implanted by a cataract surgeon. The long-term safety of this device still remains

to be seen. There is no cure for AMD, but it can be controlled if it is caught early enough.

## Are there preventative measures people can take against macular degeneration?

There are some risk factors that cannot be changed: age (AMD occurs more frequently as one gets older), gender (AMD is more common in women), race (AMD is more common in Caucasians) and family history (if someone in your family has AMD, you are much more likely to have it).

However, there are many risk factors that can be changed. I advise my patients to make sure their weight, cholesterol and blood pressure are well controlled. UV exposure accelerates AMD, so it is particularly important here in Hawaii to make sure that one wears UVA and UVB blocking sunglasses. Smoking also worsens AMD.

There also is very good evidence that nutritional supplements can slow down AMD. Two landmark studies from the National Institutes of Health have recently shown that taking a special formulation of vitamins C, E, zinc and copper, and more recently lutein and zeaxanthin, protects against vision loss.

Bottom line, I tell all my patients to live a healthy lifestyle and to eat lots of green leafy vegetables that

contain lutein (for example, spinach or kale). I recommend the AREDS2 formulation vitamins for my patients with moderate to advanced AMD.

## Anything you'd like to add?

One very important thing that is pertinent to our population here in Hawaii is that there is a specific type of AMD, called polypoidal choroidal vasculopathy (PCV), which is much more common in Asian-Americans than in other populations. Being here in Hawaii has allowed us to really study and gain a better understanding of how PCV behaves differently from other forms of AMD. The standard treatments for AMD don't seem to work as well for PCV. Our center is the only one in the country that is enrolling patients in a clinical trial looking at a new treatment for this disease.

This is one example of the exciting research that we are conducting at the Retina Center at Pali Momi. By being involved in the latest clinical trials for both dry and wet AMD, we have enabled patients here in Hawaii to get access to all the major breakthroughs for AMD years before they become FDA-approved. Patients here can get the same cutting edge treatment that they would receive anywhere in the world without ever needing to leave Hawaii.

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