

NEWS

Macular Degeneration Research



BETTER HEALTH THROUGH RESEARCH

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Women at Greater Risk of AMD than Men

Findings suggest greater vigilance needed for women

A mounting body of evidence shows that women are more affected by AMD than men, according to an article published by the *Society for Women's Health Research*.

Scientists attribute this disproportion in part to women's longer lifespans, since age is the greatest risk factor for AMD. (Additional risk factors include smoking, obesity, family medical history and race.) As a result, scientists say, it is particularly imperative for women to get regular eye exams since early detection and aggressive treatment can significantly slow the disease's progression.

"There are many new treatments on the horizon," says Larry Singerman, M.D., of the Willis Eye Institute in Philadelphia. "We have proven the benefit of anti-VEGF (vascular endothelial growth factor) drugs." Anti-VEGF drugs limit the excessive growth of new blood vessels, the primary cause of "wet" AMD.

In addition, newer drugs have been shown to destroy the strands of messenger RNA that produce harmful proteins in the eye. These drugs have the additional benefit of requiring fewer intravitreal injections than older drugs, which may be used every four to six weeks, for more than a year.

Postmenopausal Estrogen May Play Key Role in AMD Development

Postmenopausal women who take estrogen seem to have a reduced risk of developing advanced AMD, especially if they also have a history of using oral contraceptives, according to a study published in the *Archives of Ophthalmology*.

Scientists with Brigham and Women's Hospital and Harvard Medical School assessed the medical histories of thousands of women and found that current postmeno-pausal hormone users had a 48 percent lower risk of developing late-stage AMD.

In direct contrast, however, this same group of women were 34 percent more likely to develop early AMD. (Previous oral contraceptive use was not a factor in the case.) The study also found that women who had given birth had 26 percent less risk of early AMD.

"Taken together, these findings suggest a role for estrogen in the pathogenesis of AMD that requires further research in specific early and late signs of disease," the researchers concluded.

President's Corner

Why people need to know

Faces ... steering wheels ... the letters on a page ... these are just some of the sights that can be lost forever to the 8 million people currently at risk for advanced AMD.

But it doesn't have to be that way.

As this issue of **Macular Degeneration Research News** makes clear, information is one of the best tools we have for preventing vision loss.

Some 300,000 people, for instance, could potentially avert advanced AMD over the next five years—simply by taking the correct formula of vitamins and minerals.

Unfortunately, too many people don't. And too many people still aren't getting the regular eye exams that can diagnose AMD in its early stages and pave the way for aggressive treatment.

That's something we must change. We encourage you to do your part by sending along copies of this newsletter or by referring friends and loved ones to our website (www.ahaf.org, click on "Macular Degeneration Research.") With your help, Macular Degeneration Research can spread the word to the people who most need to hear – and see.



Brian K. Regan, Ph.D.
President

Blood Protein Found to Reverse or Prevent AMD

Study could yield promising therapies for vascular eye diseases

Drugs that activate a specific protein in blood vessels have been shown to reverse or even prevent AMD in the laboratory, say researchers at the University of Utah School of Medicine. The findings, published in *Nature Medicine* online, show that a protein called Robo4, when activated in mice, can inhibit the blood vessel growth and leakage that contribute to AMD.

"This discovery has significant implications for developing drugs that activate Robo4 to treat AMD and diabetic retinopathy," says study leader Kang Zhang, M.D., Ph.D. Adds Hemin Chin, Ph.D., director of ocular genetics at the National Eye Institute: "Given that vascular eye diseases are the number one cause of vision loss in the United States, the identification of new signaling pathways that prevent abnormal vessel growth and leakage in the eye represents a major scientific advancement."

Blood vessel growth is vital to human growth and to the healing of injury and disease. However, when the body sprouts new blood vessels at the wrong time or place, these vessels are often weak and unstable, causing them to leak.

Because Robo4 stabilizes blood vessels throughout the body, University of Utah scientists believe it could be used to treat non-ocular diseases, including SARS (Severe Acute Respiratory Syndrome). However, researchers caution that it will take many years for any new drugs to come to market.



Log onto our website at www.ahaf.org then simply click on the Macular Degeneration Research link to learn more about what's new in the world of research, as well as important information about risk factors for macular degeneration.

Low-Vision Therapy Can Enhance AMD Eye Function

Home visits and counseling among arsenal of treatments

A vision therapy program that incorporates counseling, home visits and assistive devices can significantly enhance vision in people with AMD and other diseases of the macula, according to a study reported in the *Archives of Ophthalmology*.

The study, conducted by the University of Illinois at Chicago College of Medicine, tracked 126 veterans over four months and found that those who received face-to-face vision therapy showed marked improvement in all aspects of visual function, including reading ability, mobility, visual information processing and visual motor skills. By contrast, study participants who received no therapy showed a significant decline in visual function.

The therapy included a low-vision examination, counseling, training in assistive devices like magnifiers and assigned homework to encourage practice with the devices.

“At least 10 hours of low-vision therapy ... is justified for patients with moderate and severe vision loss from macular diseases,” the study concludes.

A variety of resources are available for people who suffer from macular degeneration. For a list of agencies that offer counseling, training and other special services please call Macular Degeneration Research at 1-800-437-2423 or visit our website at www.ahaf.org.



Vitamins Not Being Used Correctly, Researchers Say

Nearly 40 percent of people with AMD are either not taking vitamin/mineral supplements that could slow the progression of their disease or are not using the recommended dosage, according to a survey by the Wilmer Eye Institute at the Johns Hopkins School of Medicine.

The Age-Related Eye Disease Study has determined that a specific “cocktail” of zinc and antioxidants—vitamins C and E and beta-carotene—can lower the risk of progressing to advanced AMD by 25 percent. However, the recent Wilmer Institute survey found that less than two-thirds of candidates for vitamin therapy were using the correct formula and dosage and that nearly half did not understand how their vision might benefit. Patients who did understand the benefit were twice as likely to be using the vitamins correctly.

Susan B. Bressler, M.D., the study leader, says the findings underscore the importance of “improved patient education” to “maximize the potential” of vitamin-mineral regimens.

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Acknowledge the Special People in Your Life

Honor gifts to Macular Degeneration Research give twice over

Looking for a special way to acknowledge the important people in your life? Consider an honor gift to Macular Degeneration Research.

Honor gifts can be given on special occasions—a friend's or relative's birthday, graduation, or anniversary—or they can be given on holidays like Christmas, Hanukkah, Mother's Day, or Father's Day. Or they can be given at any time of the year to show appreciation for someone's kindness or to recognize someone's impact on your life.

Macular Degeneration Research's honor gift program can help you to thank others for their unselfish acts of kindness—while advancing sight-giving and life-enhancing research and educational efforts.

For more information on this unique way of giving, please contact Katherine Jimenez of Macular Degeneration Research at 1-800-437-2423.

Thank you for thinking of Macular Degeneration Research!

Blind Man Bowls Perfect Game

A blind Iowa man with AMD recently astounded onlookers at the Century Lanes bowling alley in Des Moines by bowling a perfect game of 300.

“When I got to the tenth frame,” said Dale Davis, 78, of Alta, “I said, ‘Lord, let me throw three more good balls.’”

Davis had lost his sight to AMD several years ago and had given up on his beloved sport until his sister coaxed him back into the alley. He now plays six games a week.

“I can't see the lane or the pins and have a heck of a time finding my ball sometimes,” Davis told the Storm Lake Times. He uses the raised dots along the bowling lanes to determine his position and relies on his hearing and his friends to figure out how he's doing.

With a 188 average, Davis has been dreaming of a perfect game all his life. “After I went blind,” he said, “I just assumed it wouldn't happen.”

