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**THE MAGNIFIER Issue #66, July & August, 2008**

Newsletter from the Macular Degeneration Foundation, Inc.  
P.O. Box 531313 Henderson, NV 89053  
<http://www.eyesight.org>

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**SUPPLEMENTS AND AGE-RELATED EYE CONDITIONS**

The beaver dam eye study

Ophthalmology. 2008 Jul;115(7):1203-8. Epub 2007 Nov 12.

Klein BE, Knudtson MD, Lee KE, Reinke JO, Danforth LG, Wealti AM, Moore E, Klein R.

Article taken from the Department of Ophthalmology and Visual Sciences, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin 53726, USA. [kleinb@epi.opth.wisc.edu](mailto:kleinb@epi.opth.wisc.edu)

“OBJECTIVE: To investigate the association of use of vitamin, mineral, and nonvitamin nonmineral supplements with common age-related eye diseases.

DESIGN: Population-based prospective study with incidence data.

PARTICIPANTS: Subjects were participants in the Beaver Dam Eye Study who contributed data in 1988 to 1990 (n = 4926), 1993 to 1995 (n = 3722), 1998 to 2000 (n = 2962), and 2003 to 2005 (n = 2375). METHODS: Use of all medications and supplements were collected from study participants at each of 4 examinations. Intraocular pressure (IOP) measurement and fundus and lens photography were done at each visit. Visual field data are available only from baseline. Photographs of the lenses, retina, and discs were graded using standard protocols by trained graders.

MAIN OUTCOME MEASURES: Incidence of age-related cataracts, macular degeneration (AMD), and high IOP for one set of analyses and incidence of supplement use for the second set of analyses. RESULTS: There was little evidence of any significant associations between supplement use and incident ocular outcomes except for a small protective effect for cortical cataracts by vitamins A and D, zinc, and multivitamins and increased odds of late AMD. Late AMD was associated with incident use of vitamins A, C, and E and zinc.

CONCLUSIONS: Age-related macular degeneration seems to precede use of vitamins A, C, and E and zinc. This may reflect advice by family, friends, and health care providers about the benefits of Age-Related Eye Disease Study-like supplements.”

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Additional Info:

The AREDS formula consists of vitamin C (500 mg), vitamin E (400 IU), zinc (80 mg), beta-carotene (15 mg) and copper (2 mg as cupric oxide). If you have questions about the AREDS formula, you may call 1-800-924-4393 for additional information.

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**THE POWER OF HOPE: BEING A DOCTOR IS MORE THAN RELYING SOLELY ON THE NUMBERS**

Center for Value-Based Medicine, Flourtown, PA 19031, USA.  
Godshalk AN, Brown GC, Brown HC, Brown MM. - Retina. 2008 Jul 14

“AIMS: To ascertain whether a physician’s positive or negative attitude significantly impacts the quality of life of ophthalmic patients.

METHODS: A standardised, validated, time trade-off, utility instrument was administered to consecutive vitreoretinal patients by interview to assess the quality of life associated with their current ocular health state (baseline scenario). Each was then given a scenario for the exact same health state with the same long-term prognosis in which their doctor emphasised the possible negative consequences (bad-news scenario) and one for the same health state in which their doctor emphasised the positive consequences (good-news scenario).

RESULTS: Among the 247 patients enrolled were 140 women (57%) and 107 men (43%) with a mean age of 66 years and a mean educational level of 13.8 years after kindergarten. The mean baseline utility for 247 patients was 0.87 (SD = 0.19; 95% CI 0.84 to 0.89). The mean bad-news scenario utility was 0.80 (SD = 0.22, 95% CI 0.78 to 0.83), a 70% diminution in quality of life compared with the mean baseline utility (p = 0.0009). The mean good-news scenario utility was 0.89 (SD = 0.18, 95% CI 0.86 to 0.91), an insignificant difference compared with the mean baseline utility (p = 0.26).

CONCLUSION: Ocular patients had a considerably poorer quality of life when their physician emphasised the possible negative consequences associated with their eye disease(s), as opposed to a more positive approach. While at times necessary, a negative emphasis approach can theoretically result in a considerable loss of life's value."

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## **OMEGA-3 FATTY ACIDS ARE ONCE AGAIN HEADLINE NEWS FOR EYE NUTRITION**

Recent news articles from the University of Melbourne, Australia report that omega-3 fatty acids was associated with a 38% reduction in the risk of late MD.

Eating foods with omega-3 fatty acids is the best way to provide nutritional benefit for your eye health. Foods to shop for are: flax seed oil, olive oil (extra virgin or virgin), olives, avocados, almonds, peanuts, sesame oil, pecans, pistachio nuts, cashews, hazelnuts, macadamia nuts, etc.

The time-released effects of obtaining these nutrients from nuts and other whole foods is thought to be more beneficial than consuming the entire daily amount via a single oil dose.

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## **USING THE WINDOWS BUILT-IN SCREEN MAGNIFIER**

A basic screen magnifier is available in both Windows XP and Windows Vista computers. It is usually accessed through the Start menu. In XP, it's Start>>All Programs>>Accessories>>Accessibility>>Magnifier. In Vista, it's Start>>All Programs>>Accessories>>Ease of Access>>Magnifier.

There is also a keyboard shortcut: Windows Logo key + U. This brings up accessibility options in both XP and Vista.

As when learning most new things on a computer, the options can be a little confusing at first. But with patience and/or help from a friend, you will see how to bring up the Magnifier automatically when your computer is turned on. The Magnifier may be sized and positioned anywhere on the screen and set to several levels of magnification.

Note: When docked on the edge of the screen, there is no apparent way to close the magnifier. However, by dragging it away from the edge of the screen with your mouse, an "X" appears at the top of the window to close it.

For detailed instructions, see:

<http://www.microsoft.com/enable/training/windowsxp/magnifierturnon.aspx>

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## **PREDICTORS OF Anti-VEGF ASSOCIATED RETINAL PIGMENT EPITHELIAL TEAR USING FA AND OCT ANALYSIS.**

Chiang A, Chang LK, Yu F, Sarraf D.

From the Jules Stein Eye Institute, UCLA, Los Angeles, California.

**PURPOSE:** To identify fluorescein angiography and optical coherence tomography (OCT) predictors for retinal pigment epithelial (RPE) tear in eyes with pigment epithelium detachment (PED) associated with neovascular age-related macular degeneration treated with intravitreal vascular endothelial growth factor (VEGF) modulating therapy.

**METHODS:** In a single institutional center, 60 consecutive patients with PED and neovascular age-related macular degeneration treated with VEGF modulating therapy (either pegaptanib, bevacizumab, or ranibizumab) for more than a 27-month period were included in the study. Fluorescein angiography (FA) and OCT imaging was performed before and after anti-VEGF therapy. Formal statistical analysis comparing the tear group to the nontear group was performed to identify high-risk features for RPE tear.

**RESULTS:** RPE tear rate for eyes with vascularized PED receiving anti-VEGF therapy was 17% (10/60). There were highly statistically significant differences in the median PED size on fluorescein angiography (greatest linear diameter) (3.2 mm versus 1.8 mm, respectively;  $P < 0.001$ ) and in the median maximum PED height on OCT (394  $\mu\text{m}$  versus 149  $\mu\text{m}$ , respectively;  $P = 0.001$ ) between the tear group and nontear group. There was also a significant difference in terms of the presence of subretinal fluid on OCT between the two groups (87.5% versus 39%, respectively;  $P = 0.019$ ).

**CONCLUSION:** Large PED basal diameter and vertical height are correlated with an increased risk of developing an RPE tear after anti-VEGF therapy. Patients with large vascularized PED by fluorescein angiography and/or OCT analysis

should be alerted of the risk for vision loss due to RPE tear after anti-VEGF therapy.

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## **NEW TECHNOLOGY FOR TREATING EYE DISEASE**

This revolutionary, needle-free technology uses a gel and ultrasound to send drugs through the outer layers of the eye and into the damaged area at the back of the eye. The Australian company, Seagull Technology, has developed a new way of treating the nation's leading cause of blindness. The SonoEye device uses ultrasound waves that make the tissue more permeable, allowing the drug to enter the eye. Managing director, Dr. Shanny Dyer, said the procedure, which would require a local anaesthetic, "felt similar to putting a contact lens in the eye."

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## **MICROSCOPIC NEEDLES COULD REVOLUTIONIZE EYE TREATMENT**

Medical News Today - 30 Jun 2008

<http://www.medicalnewstoday.com/articles/113283.php>

"A new technique that effectively delivers drugs to the eyes, using microscopic needles, could offer hope to the millions of patients worldwide suffering from common eye diseases that threaten vision such as glaucoma, macular degeneration and diabetic retinopathy.

Researchers at the Georgia Institute of Technology and Emory University in America presented this research, entitled "Microneedles for Ocular Drug Delivery," to international experts at the Ophthalmic Drug Delivery symposium which was held at the Royal Pharmaceutical Society of Great Britain.

The research looks at how microneedles can be used to deliver drugs to the eye through a minimally invasive procedure. The needles used to penetrate the eye only go as deep as half a millimetre into the eye tissue. This means that the needles do not penetrate far enough to cause as much damage as traditional needles. As a result, they can be applied to the eye using only local anaesthetic.

This technique has the potential to revolutionize the way of treating common eye conditions such as glaucoma, macular degeneration and diabetic retinopathy. Traditional delivery methods such as eye drops have difficulty in efficiently

delivering drugs to the back of the eye, and ordinary injections are invasive as the needle penetrates across eye tissues. Repeated injections with regular needles can also result in other serious complications to vision.

Samirkumar Patel from the research team, said: 'The eyes are one of the most sensitive and delicate organs in the human body, and perhaps the most fascinating. They present us with the window through which we view the world, and are responsible for four fifths of all the information our brain receives. Although the research is at an early stage it does show that it is possible to use microneedles to effectively deliver drugs to targeted sections of the eye, such as the anterior and posterior portions. No inflammatory response or other adverse effects were observed in our early tests. This is promising news for those who are suffering from vision threatening diseases such as glaucoma, macular degeneration and diabetic retinopathy.'

The next stage of development will be further research to confirm safety and gain a better understanding of the long-term effects.

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## **SALAD MAY PROTECT YOUR EYES**

For Canwest News Service

"Toss together a salad with turkey, walnuts, avocados, and red bell peppers and you may be able to appreciate how vibrant it looks for a l-o-n-g time to come. Diets that contain healthy amounts of the omega-3 fat DHA (600 mg a day), vitamins C and E, beta carotene and zinc are linked to a 38% drop in MD. The DHA helps prevent the dry form from getting started; the salad's vitamin-mineral mix keeps the wet type from getting worse.

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## **CONTACTING MDF**

To speak to a support representative directly, you may call 1-888-633-3937. If you reach our voice mail, please speak slowly and distinctly.

## **ORDERING BOOKS & TAPES**

When purchasing items from Amazon.com, please remember to use the MDF search box located at <http://www.eyesight.org/Books/books.html> . By simply

originating your search from our website, Amazon rewards the Foundation with a small commission from each product you order. Thank you.

**MAKING CONTRIBUTIONS:**

Please make checks payable to Macular Degeneration Foundation, Inc., P.O. Box 531313, Henderson, Nevada 89053, or you may use your credit card on our web site <http://www.eyesight.org/Donations/donations.html> . Your contributions make our services available as a support system for macular degeneration patients in the following ways:

1. We provide toll-free lines for personal contact assistance.
2. We mail brochures and other printed materials upon request.
3. We support an award-winning web site that provides the latest up-to-date information.
4. We fund research proposal grants to provide therapies for both the wet and dry form of AMD. Contributions marked "research" are used 100% for research.

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MDF was founded in 1992 by Edmund J. Aleksandrovich Ph.D (a victim of macular degeneration). It provides MD patients and their families with the information necessary to understand the disease, the latest news concerning ways to cope with the disease, and supports the efforts of researchers to find a cure.

Subscribers who wish to cancel their subscription or change their email address may visit: <http://www.eyesight.org/Newsletter/newsletter.html> .

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