



The Magnifier

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OMEGA-3S HELP STAVE OFF AGE-RELATED VISION LOSS

Among 1,837 people who had early signs of macular degeneration, those with the highest consumption of omega-3 fatty acids were 30 percent less likely to progress to the advanced form of the disease over a 12-year period than those with the lowest omega-3 intake, researchers found. In addition to fish (trout, salmon, sardines) flax seeds have also been identified as a major source of omega 3 fatty acid. Flax seeds have the perfect ratio of Omega-3 to Omega-6. Flax seeds are also rich in fibre content which helps in maintaining proper digestion. Flax seeds are also rich in protein content. Ground seed is the most preferred form of flaxseed as it has all the nutrients in appropriate amounts. Omega-3 capsules are also available as over-the-counter supplements. The National Institute of Health/National Eye Institute's new AREDS formula will include omega-3 in the formulation for macular degeneration eye health.

Macular Degeneration Foundation

P.O. Box 531313
Henderson, NV 89053

Website:
www.eyesight.org

Telephone:
1-888-633-3937

A HUGE THANK YOU TO ANNIE'S BOOK STOP, LLC IN WELLS, MAINE

Mr. Raymond Tanguay, President, writes, " Enclosed, please find our check in the amount of \$200.00 for Macular Degeneration Research. We have been selling bookmarks in our bookstore for \$1.00 each to aid in the project. We chose your organization because one of our staff members has AMD and new techniques have helped her immensely and made great improvements in her vision. Many of our customers are also suffering from this disorder and are threatened with loss of the ability to read. Your foundation seems a natural for our bookstore because if you can't see see, you can't read."

HOUSTON LOW VISION CLUB "THERE IS LIFE AFTER VISION LOSS"

The club's objective is to assist those experiencing significant vision loss to discover ways to continue daily activities and maintain their independence. In addition to providing members access to valuable information, the club provides the members an opportunity to talk with others that share their challenges, including family members and friends. Membership in the club is available to all adults who are experiencing low vision, their friends and family, professionals and others interested in the field of sight enhancement. Since 2006, there have been a host of volunteers that have put together activities and educational programs for low-vision patients in the Houston area. To find information on the internet go to www.houstonlowvisionclub.org. The meeting locations are as follows:

FOURTH SATURDAY OF EACH MONTH
10:00 A.M. TO NOON
METROPOLITAN MULTI-SERVICE
CENTER
1475 WEST GRAY
713-284-1973



SECOND FRIDAY OF EACH MONTH
11:00 A.M. TO 1:00 P.M.
BAYLAND COMMUNITY CENTER
6400 BISSONNETT
713-541-9951

THIRD FRIDAY OF EACH MONTH
2:30 P.M. TO 4:30 P.M.
THE TERRACE AT MEMORIAL CITY
11900 BARRYKNOLL
713-932-0400

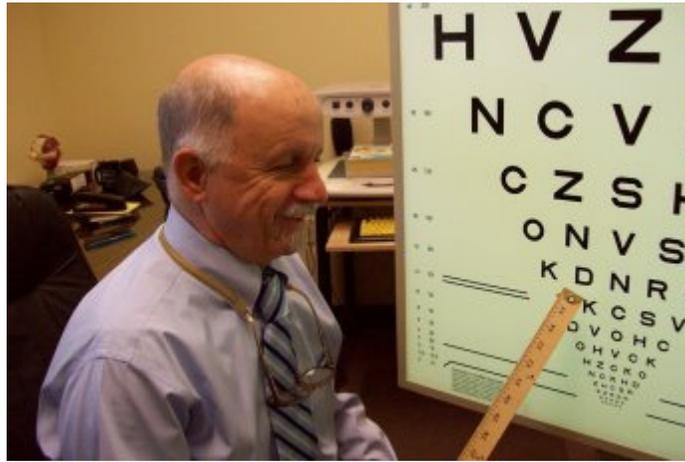
Thanks to the International Macular Degeneration Support Group's more than 200 affiliates, support groups are now available to hundreds of people. For more information on how to find a support group or start a support group, go to www.mdsupport.org or call (816) 761-7080. Daniel L. Roberts, author of the best selling book, *The First Year Age Related Macular Degeneration*, is the director of MD Support and has been the driving force behind this amazing endeavor. With new and interesting presentations each month, information for MD patients is an on-going educational experience.

COMMUNITY SERVICES FOR VISION REHABILITATION (CSVR) RECEIVES \$20,000 EDUCATIONAL GRANT FROM THE MACULAR DEGENERATION FOUNDATION, INC.

The Macular Degeneration Foundation would like to take this opportunity to thank Dr. Fonenot for his on-going efforts to make a difference in the lives of patients with low vision. By providing services, support, and education, Dr. Fontenot's work is the epitome of a non-profit organization. The devastation from hurricane Katrina and previous disasters has created a great need for services in this area to help those who were relocated to this region and those that suffered extreme losses in that immediate area. CSVR is making a huge dent in meeting these needs.

CSVR is a non-profit, 501c3 serving the Gulf Coast area. Screening is available to patients of all ages, with or without insurance. A local foundation offers financial assistance to those who cannot afford devices/glasses/magnifiers

An initial evaluation by is given by Dr. Fontenot or the OD on duty. The patient is then eligible for training with an Occupational Therapist who is Braille and Orientation and Mobility certified. CSVR provides computer training classes when appropriate. Support groups sponsored by CSVR are a valuable resource for socialization and on-going education.



"My goal", states Dr. Fontenot, "is to help increase the awareness of the need for, and availability of, Low Vision Rehabilitation in our community, state and nation, as well as provide the best low vision care that we can to all regardless of insurance status and income. We have been helped by many individuals, foundations, and organizations. I would like to particularly thank the Macular Degeneration Foundation for their help, encouragement and advice in how to achieve this goal."

Dr. Fontenot is Board Certified in Internal Medicine and Cardiology and practiced Cardiology in Mobile, Alabama from 1974-2003. In 1988, Dr. Fontenot developed central vision loss because of congenital retinal disease, however, he continued practicing Cardiology by use of strong glasses, magnifiers, CCTVs, and computer adaptive software. In 2002 he became a Certified Low Vision Therapist, and in 2003 began a practice of Low Vision Rehabilitation in Fairhope, Alabama.

In 2006 Dr. Fontenot established a 501c3 non-profit, Community Services for Vision Rehabilitation and opened an office in Mobile, Alabama. CSVR recently opened a third office in Montgomery, Alabama. Dr. Fontenot is a member of NFB, ACB, American, Associate of American Academy of Ophthalmology and a member of the AAO Low Vision Rehabilitation Committee. All donations are greatly appreciated. Make checks payable to CSVR and mailed to the following address all contributions are tax deductible.

DR. JOE FONTENOT M.D., DIRECTOR, CSVR
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www.csvrlowvision.org

THE TALKING EYE

Learning how your eye/eyes work is important in helping to understand common problems with your eyesight and how various treatments or therapies might help. Using the "first person" to describe the function of your eye, this text has been taken from YOUR BODY & HOW IT WORKS, by J.D. Ratcliff.

"I Am Your Eye"

"For concentrated complexities, no other organ in your body can equal ME. No larger than

a Ping-Pong ball, I have tens of millions of electrical connections and I can handle 1.5 million simultaneous messages. I gather 80 percent of all the knowledge that you as an individual absorb. You can think of me as a miniature television camera, even though I am much more sensitive than the costliest TV camera ever made. I am responsible for one of the greatest of all miracles -- - - - sight.

Today's world is giving me a hard time. I wasn't built for it. For your prehistoric ancestors, the main function for me was to see things at a distance - dangers to be avoided, game to be killed. Only lately have I been called on for continuous close-up work.

Look at my anatomy and you'll understand why I am having difficulty adjusting to today's demands. First, my front window, which is my clear, dime-size cornea, starts the seeing process by bending light rays into orderly patterns. Next, my pupil is an adjustable gateway for light. In bright sun it is nearly closed; on a dark night it is wide open. Up to this point there is nothing about "seeing" that a cheap camera couldn't handle.

My wonders really begin with my lens that is a little envelope of fluid the size and shape of an oval vitamin pill. My lens is surrounded by a ring of tiny, superbly strong, and unbelievably hard-working muscles. When they tense, my lens fattens for near vision; when they relax, it flattens for distant vision. This was a fine arrangement for your caveman ancestors. Since they were mainly interested in things 20 or more feet away, the muscles were relaxed most of the time. But now you live in a close-up world that includes lots of reading, close-up paper work, watching television, and staring at your computer. This keeps my ciliary muscles tensed much of the time. They grow tired.

In front of and behind my lens I have two fluid-filled chambers. In front the fluid is like water; in back it is about the consistency of egg white. The watery fluid keeps me firmly inflated. Both fluids must be absolutely clear to permit passage of light. Those "specks" you see when you look at a bright light are cellular remnants left over from your days in the womb when I was under construction. They will float aimlessly in your eye fluid as long as you live.



When you look at an object, the light passes through my lens, which brings it into correct focus on my retina. My retina is a kind of onionskin wallpaper that covers the rear two thirds of my interior. It is less than a square inch yet my retina contains 137 million light-sensitive receptor cells: 130 million shaped like rods for black-and-white vision and seven million shaped like cones for color vision.

The rods are scattered all over my retina. Let a firefly pass at night and a complex chemistry is initiated. The faint light bleaches rhodopsin, a purplish-red pigment in my rods. The bleaching process generates a tiny wisp of electricity, just a few millionths of a volt, far too little to tickle a mosquito. This feeds into my straw-size optic nerve and is transmitted to your brain at about 300 miles per hour. The brain interprets the signals flooding in and identifies the object - a firefly. All of this intricate electrochemical activity has been completed in about .002 seconds.

If my rods seem complex, my cones are far more so. They are concentrated in the fovea, a pinhead-size, yellowish depression at the very center of my macula. This is the center for acute vision and helps you enjoy colors. A leading theory is that these cones also have bleachable pigments, one each for red, green, and blue. Like an artist mixing paints on a palette, your brain blends these colors to make scores of other hues. If anything should go wrong with this intricate electrochemical process, you would be colorblind. In dim light, the activity of your cones diminishes. Your color sense vanishes and everything becomes gray as your rods take over.

You see with me, but you see in your brain. A crushing blow at the back of your head, severe enough to destroy the optical center of your brain, would produce permanent blindness. A lesser blow and you would see "stars" or a chaotic electrical disturbance. The real evidence of your brain's role is when you dream. You "see" pictures, even with your lids closed in total darkness. If you had been born blind, you would dream in terms of other sensory stimuli: touch, sound, even smell.

You were not born with the eyes that you have today. At birth, you could see only light and shadow. In the first few months you were nearsighted. To study your rattle, you held it 8-10 inches from your face. Also, your eyes were poorly coordinated. I'd wander in one direction, my partner in another. However, a few months after birth we were moving in exact unison. By the time you were six, your vision was excellent and at age eight your eye sight was at it's peak.

When you were young, you used to read in dim light. Your mother may have warned you that you were "ruining" your eyes. Nonsense. The young see better in dim light than adults.

I have a number of other unusual attributes. Tiny though they are, my muscles, milligram for milligram, are among the body's strongest. In an average day, I move about 100,000 times to bring objects into sharp focus. You would have to walk 50 miles to give your leg muscles similar exercise.

My cleaning equipment is similarly striking. My lacrimal glands produce a steady stream of moisture (tears) to flush away dust and other foreign material. My eyelids, of course, act as windshield wipers.

You blink three to six times a minute and even more when I am tired. This keeps my cornea moist and clean. The tears also contain a potent microbe-killer called lysozyme, which guards me from infective bacteria.

I try to ward off fatigue by resting as much as possible. I get time off when you blink because my partner and I relieve each other: For a while I may carry 90% of the work load, while my partner loaf; then it goes to work and I rest.

Nature gave me superb protection, placing me in a bony cavern with protruding cheekbones and forehead to act as shock absorbers for direct blows. She also gave me supersensitive nerves to activate the alarm if there should be a potentially damaging intruder such as a cinder.

Still, I do have my troubles. My focusing apparatus often fails to work perfectly. Eyeglasses

can correct 95% of this trouble. Disease is a more serious problem. One potential disorder is really a plumbing problem - either too much fluid entering me or too little fluid draining away. Pressure builds up, reducing the blood supply to my optic nerve. This is glaucoma.

In severe instances, glaucoma can cause permanent blindness in a few days. More often it is a leisurely performer, producing symptoms so mild they are apt to go unnoticed. These symptoms: colored halos around bright lights, loss of side vision, difficulty in adjusting to the dark, a blurring of vision. When you are over 50, you have one chance in 40 of glaucoma damaging your sight or blinding you completely. Your doctor can check for glaucoma simply by pressing a little gadget called a *tonometer against my eyeball. This is a test that should be done yearly. What is the treatment for glaucoma? Drugs in drop form, or surgery. *(More common now is the "puff" test which is all computerized. The patient sits in a chair with his/her chin in a "cup" and the patient's head to a bar. Then a puff of air is "shot" into the eye).

Astigmatism is another of my common ailments. In this one, my cornea is not a spherical surface and distorts vision like a bubble flaw in a piece of glass. Eyeglasses correct this condition. A detached retina is more serious. It occurs when my retinal wallpaper blisters or peels, and usually announces itself with flashing lights, image distortion, blurring spots. Usually a surgeon can successfully "tack" my wallpaper back in place.

Both my cornea and my lens (normally totally transparent tissue) can cloud and lead to blindness. If it's the cornea, you can regain sight with a corneal transplant. If it's the lens, you will need a cataract operation

After the age of 55, I start to age like your other organs. The transparency of my lens is lower (cataracts), accommodation muscles are weaker, (presbyopia) and hardened arteries are diminishing blood supply to my retina (macular degeneration). These processes will continue. However, the odds are in favor of my providing him with serviceable vision as long as he lives."

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.

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>. 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.