Eye Recycling Process Identified

Researchers at Washington University School of Medicine in St. Louis, led by Thomas A. Ferguson, PhD, believe they may be able to stimulate a pathway in the retina to help preserve vision in patients with age-related macular degeneration and other retinal diseases. As we learned in high school science class, the retina’s rods and cones allow us to see. Rods are for night vision, and cones operate in bright light.

Researchers believe they have identified a cellular recycling process called autophagy that the cone cells need to function and, in some cases, survive. The researchers believe that if the recycling process can be activated with drugs, the approach may be used to treat or prevent some retinal diseases.

Who Are Care Givers?

Formal caregivers are volunteers or paid care providers associated with a service system. Informal caregivers are family, friends, neighbors or church members who provide unpaid care out of love, respect, obligation or friendship. These people far outnumber formal caregivers, and without them, this country would have a difficult time formally funding the caregiving needs of a growing number of disabled recipients. A careGIVER is not a careTAKER.

• gives freely
• honors personal boundaries
• does not judge
• takes positive action
• allows the receiver to activate his or her own capabilities
• respectfully waits to be asked for help
• practices good self-care to be of better service to others
• focuses on the solution, not the problem
Has your ophthalmologist told you about low vision occupational therapists, rehabilitation teachers, magnifiers, vision aids and devices?

If the answer is “No”, you are not alone. Studies have shown that only a minority of patients know about all the training, resources, and devices available to help them cope with vision loss.

Eye doctors and their staff are busy rushing throughout the day to keep up with the ever-increasing number of people with macular degeneration. Many doctors are focused more on providing the best medical and surgical treatments than on the person. The result is that most patients leave the office without any knowledge of what is available to help them remain independent and functional.

In an effort to change this, the Macular Degeneration Foundation has joined with the Hindman Foundation, several Lions Clubs and the Reader’s Digest Partner for Sight Foundation in funding a short video that will address the need to educate and refer people with macular degeneration, as well as other eye problems, to vision rehabilitation resources and services.

This project was suggested by the American Academy of Ophthalmology’s leadership and will be distributed and shown by state societies, at professional meetings and on web sites. It will be produced by Lovett Productions, which has already produced a movie on this subject—"Going Blind: The Movie". Mr. Lovett, who has vision loss from glaucoma, is passionate in trying to raise awareness of the ways people with any degree of vision loss can increase their function and independence.

Dr. Joe Fontenot, Chair of the AAO’s Vision Rehabilitation Committee, is working with the Academy to produce the video. He said “Ophthalmologists are at the apex of the health care team. If they display leadership, concern and empathy in the care of the visually impaired, it will have a large impact on the lives of many people.”

Dr. David Seftel, Director of Research Development for the Macular Degeneration Foundation, is interviewing the world’s foremost scientists and medical practitioners who are actively investigating cures and treatments for Macular Degeneration and related eye diseases.

Visit MacularNews.org for the latest news and register to receive an email notice when new videos are first posted.
Definitions

Ophthalmologist: a practitioner in the medical science of eye care and the eye and its related structures. An M.D. degree is required.

Retina specialist: a medical doctor trained as an ophthalmologist, who has received additional training in diseases and surgery of the retina and vitreous.

Optometrist: a degree (O.D.), independent, primary health care provider skilled in the co-management of eye health and vision care, including examination, diagnosis, treatment, management of diseases/disorders, prescription of eyeglasses/contact lenses, and provision of low vision aids and therapy.

Optician: a person who designs or manufactures ophthalmic appliances or optical instruments ("ophthalmic optician") or deals in prescriptions ("dispensing optician").

Partial Blindness Can Be Reduced 10% By Training The Eye

By Colin Fernandez, Science Correspondent for THE DAILY MAIL ... August 31, 2015

Everyone has a blind spot in the eye where the optic nerve joins the retina. There are no cells in this gap - but trickery in the brain means we are not aware it is there.

Now researchers have found that the vision in the blind spot can be improved - and this could extend to people with types of vision loss including age related macular degeneration (AMD), the leading cause of blindness in western countries.

The researchers trained 10 people for 20 consecutive days to detect a wave pattern on a screen. Subjects were questioned about the color and direction of the pattern. At the end of the training, individuals showed improvements in the ability to judge both the direction and the color of the waveform.

Paul Miller, co-author of the University of Queensland study, said: "We did not confidently expect to see much reduction in functional blindness as you can never develop photosensitivity within the blind spot itself.

You can only enhance sensitivity at the blind spot periphery, but this proved sufficient to bring about a ten percent reduction in functional blindness."

The researchers say that the training enhances the sensitivity of neurons on the edge of the blind spot, making the eye more sensitive to weak signals. The authors write in Current Biology: ‘Overall, our data show that the extent of functional blindness associated with physiological blind spots can be reduced through training.

The authors believe that if the training can reduce blindness with the human blind spot, they may prove effective in other cases. Miller says they plan to further optimize their training protocol in normally sighted people around the physiological blind spot and to then test its use in people with age-related macular degeneration.

In The News

All-in-One HD Video Magnifier with Full Page Text-to-Speech

HUNTINGTON BEACH, Calif., Oct. 27, 2015 /PRNewswire-iReach/ -- Enhanced Vision, America’s leading manufacturer of magnifying solutions for the visually impaired launched a powerful new full high definition desktop electronic magnifier today featuring full page text-to-speech. This allows a person with very limited vision to either magnify small printed text to a larger, contrasting readable format or have a full page of printed text read back to you in a clear audible voice with a simple push of a button. You can save multiple documents and let DaVinci Pro read them back to you at a later date. For more information about Enhanced Vision and its products, please call (888) 811-3161 or visit www.enhancedvision.com

Minnesota Optometrist Raises Awareness of Digital Screen Use

The “Baby Boomer” generation is very much involved in digital screen technology. It is imperative for anyone using digital screen technology to be aware of the blue light factor. Recent research shows that the high energy blue light emitted from digital screens carries risks to your eyes and health. Digital screens can be defined as smart phones, tablets, iPads and computer screens. The blue light that is emitted has both short and long-term effects on eyes. When questioned about those effects, Dr. Docker discussed short-term effects like computer vision syndrome, eye fatigue and even melatonin suppression. Recent research is definitively showing that digital screen usage at night decreases melatonin levels, thereby affecting sleep, mood and productivity. The largest long-term effect is what blue light does to the retina. Over time, it can cause changes to the retina that increase the risk for developing macular degeneration.

Southwest Eye Care is recommending blue light filter screens and blue light blocking glasses for all patients with a family history of macular degeneration. Obviously, anyone already diagnosed should be even more aggressive with how they protect their eyes with screen usage.
How To Find Rehab Services

The best way to obtain local low vision help is to ask your eye doctor or their staff who they would recommend. They may have a doctor or therapist in their own practice, or there may be a low vision clinic nearby that they are familiar with, regularly refer to and know will help you attain maximal function, independence and quality of life.

There are many local private non-profit organizations working to help the blind and visually impaired. Many are staffed by physicians or optometrists, and offer thorough evaluation and individualized plans for optimum function. They may offer Occupational Therapy and home visits. They are happy to see people with early or mild impairment.

You do not have to be severely impaired or totally blind to qualify or benefit. It is always better to seek help early, before dependency and loss of activities has become a way of life. Almost all will see anyone who needs help, despite insurance or financial status.

Your eye doctor and his staff should be aware of these organizations and supply you with contact information. If not, you can contact the American Foundation for the Blind’s web site at www.afb.org or do an internet search for “Low Vision rehabilitation” or “Low vision clinic” in your city or area. You may also call the Ophthalmology department of the nearest medical school, which should either have such a clinic or be able to refer you to one.

State and Federal Service Departments of Rehabilitation and Vocational Rehabilitation

All 50 states have a Department of Rehabilitation Services (sometimes called “Vocational Rehabilitation Services”). These are normally headquartered in the state capital, and are funded by a combination of federal and state monies and administered by the individual states.

Their primary mission is to help individuals with disabilities of any type, whether physical or mental, be able to continue working or to obtain a job. Age is not a consideration as long as the individual is currently employed or has realistic expectations and desire to work. It is not necessary to be working full time or have a high paying position. Any paid job will qualify you.

These state agencies also provide care to non-working and seniors with disabilities, including vision loss. The provision of such care varies considerably from state-to-state, and in some areas care for seniors and the non-working is administered by organizations such as Goodwill, Lighthouses or Helen Keller organizations. Some states have income level restrictions, or provide help on a sliding scale depending on income. Some provide help only if visual impairment reaches a certain level of severity.

To find your own state Department of Rehabilitation Services, look up in a telephone directory or by internet search. Simply look for “<your state> Department of Rehabilitation Services”. If that doesn’t work, try “<your state> Vocational Rehabilitation”.

Veterans Services

Many veterans of military service are not aware that the Veterans Administration will cover vision loss, even if not service connected. There may be some restrictions depending on income levels, but these may be waived if the vision impairment rises to the point of “legal Blindness”. The Veterans Administration services for vision impairment are very good and generous. There are special counselors, the Vision Impairment Service Team or “VIST” for the visually impaired.

The VA can provide much help for those with vision loss. This includes magnification aids, devices, glasses, orientation and mobility training. There are 10 special blind rehabilitation centers that provide intensive residential training and some outpatient services. To find one near you, call your local VA facility or 1-877-222-9387 or go to: http://www.va.gov/directory