NHTSA Sets ‘Quiet Car’ Safety Standard

The U.S. Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) is adding a sound requirement for all newly manufactured hybrid and electric light-duty vehicles to help protect pedestrians.

The new federal safety standard will help pedestrians who are blind, have low vision, and other pedestrians detect the presence, direction and location of these vehicles when they are traveling at low speeds, which will help prevent about 2,400 pedestrian injuries each year once all hybrids in the fleet are properly equipped. “We all depend on our senses to alert us to possible danger,” said U.S. Transportation Secretary Anthony Foxx. “With more, quieter hybrid and electrical cars on the road, the ability for all pedestrians to hear as well as see the cars becomes an important factor of reducing the risk of possible crashes and improving safety. This regulation will ensure that blind Americans can continue to travel safely and independently as we work, learn, shop, and engage in all facets of community life.”
The Value of Occupational Therapy

Liz Traurnicht - Pres MD Foundation

A new study, published in the March 8 edition of Investigative Ophthalmology & Visual Science, has concluded that low-vision patients who improve in their daily living activities through at-home training with an occupational therapist (OT) have less severe symptoms of depression than similar patients who did not receive such training.

Using outcomes from a recently completed clinical trial, the Low Vision Depression Prevention Trial in Age-Related Macular Degeneration (VITAL) study, 188 senior adults with low vision from age-related macular degeneration were evaluated. All patients reported borderline depressive symptoms, scoring greater than five on the Patient Health Questionnaire-9 (PHQ-9). They were divided into an occupational therapy group and a supportive therapy group. The occupational therapy group met with an OT for six one-hour sessions in their homes. The supportive therapy group met with a social worker for six one-hour sessions of talk therapy, which emphasized personal expression about loss and disability. This group got attention and empathetic support, but not specific occupational therapy directed to improve their ability to function.

Four months after treatment, 26% of the supportive therapy patients reported that their depression symptoms worsened, while only 12% of the occupational therapy patients reported worsening symptoms. This is further science-based evidence that occupational therapy is effective in helping to maintain the quality of life of those affected by age-related macular degeneration, and, by extension, similar diseases of the retina leading to central vision loss.

Source: Investigative Ophthalmology & Visual Science
Bright Flash Photography ... a Thing of the Past

by Dan Roberts - MD Support

MD Support and MD Foundation communicate with thousands of patients who undergo periodic eye exams for diagnosis and treatment of macular degeneration, glaucoma, diabetic retinopathy, and other chronic diseases. Many have asked if there is an alternative to the uncomfortable and potentially harmful practice of dilated-pupil fluorescein angiography (FA) and slit lamp examination.

One answer to this question has come during the past 15 years with simultaneous development of two effective imaging methods. Those methods are OCT (optical coherence tomography, a kind of “optical sonar” using invisible light) and nonmydriatic photography (requiring little or no dilation and a soft light flash).

These improvements in clinical practice are helping to relieve patients’ fear of discomfort and possible photothermal damage. As a result, patient volume can be expected to increase, resulting in higher detection of chronic eye disease development and progression. Fortunately, since OCT and nonmyd imaging have grown more common, patients are less frequently exposed to the bright flashes of FA. When they are, it is either because their doctors have not yet made the switch or because OCT and nonmyd cameras cannot provide sufficient information.

Continued ...
Continued ... “Bright Flash Photography”

Another commonly-used instrument is a high-intensity slit lamp, with which the doctor scans the interior of the eye with a thin sheet of light. Since exposure of the retina is less than FA, it is more comfortable for patients, and it poses less risk to the tissue. A slit lamp is not a perfect solution to the issues of discomfort and photothermal damage, but for now it has to be an acceptable alternative to FA for obtaining a full view of the interior segments.

In a recent interview, Bruce Rosenthal, O.D. (Lighthouse Guild, New York City) said FA may be necessary in cases of “a sudden drop in vision, new or large floaters, high or pathological myopia, or histories of retinal detachments and other risk factors”. Except for those special circumstances, however, OCT is strongly favored for its high quality imaging and wide field of view.

OCT is used by ophthalmologists to view cross sections of the retinal layers and anterior segment of eyes affected by glaucoma, retinal degenerative diseases, and diabetic eye diseases. The technology is invaluable for diagnosing and assessing without exposing the retina to visible light. Nonmyd cameras can be used by both optometrists and ophthalmologists for: o diabetic screening and early detection of glaucoma and other eye diseases where dilation is contraindicated o follow-up exams for comparison to benchmark OCT or FA diagnostic results o cursory exams where portability or expediency is an asset (eg. rural areas) o a possible future in telemedicine.

Many patients have been relieved of the burden of FA, but complaints continue to come in. Results from a small informal survey conducted in February 2017 suggest that likely half of patients continue to endure FA unnecessarily. The results, along with ongoing helpline conversations, appear to imply that a number of patients with well-established diagnoses may still be needlessly undergoing routine high intensity light exposure. As more doctors make the transition to updated imaging options, and as even better methods are developed for quicker, safer, and less unpleasant techniques, a greater number of patients may start showing up for their important annual exams. This, in addition to the benefits to the clinical practice, could very well boost the success rates of early diagnosis and treatment. Until all patients receive the best available technology, it is up to the doctors to make the best choices; and their patients will benefit by being made aware of the feasible options.
The Most Beautiful Flower

The park bench was deserted as I sat down to read
Beneath the long, straggly branches of an old willow tree.
Disillusioned by life with good reason to frown,
For the world was intent on dragging me down.
And if that weren’t enough to ruin my day,
A young boy out of breath approached me, all tired from play.
He stood right before me with his head tilted down
And said with great excitement, “Look what I found!”
In his hand was a flower, and what a pitiful sight,
With its petals all worn - not enough rain, or too little light.
Wanting him to take his dead flower and go off to play,
I faked a small smile and then shifted away.
But instead of retreating, he sat by my side
And placed the flower to his nose,
And declared with overacted surprise,
“It sure smells pretty, and it’s beautiful, too.
That’s why I picked it. Here, it’s for you.”
The weed he gave me was dying or dead.
Not vibrant of colors: orange, yellow or red.
But I knew I must take it, or he might never leave.
So I reached for the flower, and sneered, “Just what I need.”
But instead of him placing the flower in my hand,
He held it mid-air without reason or plan.
It was then that I noticed for the very first time:
That weed-toting boy could not see. He was blind.
I heard my voice quiver; tears shone in the sun,
As I thanked him for picking the very best one.
You’re welcome,” he smiled, and then ran off to play,
Unaware of the impact he’d had on my day.
I sat there and wondered how he managed to see
A self-pitying man beneath that old willow tree.
How did he know of my self-indulged plight?
Perhaps from his heart he was blessed with true sight.
Through the eyes of a blind child at last I could see:
The problem was not with the world; the problem was me.
And for all of those times I myself had been blind,
I vowed to see the beauty in life and appreciate what was mine.
And then I held that wilted flower up to my nose
And breathed in the fragrance of a beautiful rose,
And smiled as I watched that young boy,
Another weed in his hand,
About to change the life of another old man.

by Cheryl Costello-Forshey
Definitions

Ophthalmologist
a practitioner in the medical science of surgery and care of 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”).

Researchers Identify Treatment Target for Blinding Diseases

Credit: Robert Boston / Washington University

New research published in Cell Reports identifies a potential treatment target for blinding diseases such as retinitis pigmentosa and advanced dry age-related macular degeneration. In the study, researchers at Washington University in St. Louis School of Medicine (supported in part by an unrestricted Research to Prevent Blindness grant to the Department of Ophthalmology) explored how the retina’s photoreceptors -- the rods and cones responsible for detecting light, color, contrast, and sharpness -- are damaged over the course of these diseases.

“We believe we have uncovered a unifying pathway involved in inflicting severe damage to and even causing the death of rods and cones,” said Jonathan B. Lin, an MD/PhD student and co-first author with Shunsuke Kubota, MD, PhD. “These findings should help us develop treatments for retinal disorders, regardless of what’s causing them.”

Lin works in the laboratory of senior investigator Rajendra S. Apte, MD, PhD, the Paul A. Cibis Distinguished Professor of Ophthalmology and Visual Sciences, who is a recipient of an RPB Physician-Scientist Award and also recently published key findings on the Zika virus. In a series of experiments in mice and retinal cells, the researchers identified a key molecule -- NAD -- in the cascade that leads to the death of the retina’s rods and cones.

Lin, Apte and colleagues found that defects in the same NAD pathway appear to be involved in several different diseases of the retina. When they treated damaged photoreceptor cells in mice with a second molecule called NMN -- a precursor molecule that boosts levels of NAD -- the cells’ degeneration ceased and vision was restored. “This is exciting because we may have found a reason why these highly metabolically active cells are susceptible to damage and death when the NAD pathway does not function optimally,” said Apte.

The pathway offers a promising target for therapies for multiple retinal diseases, including retinitis pigmentosa, a cause of blindness that impairs vision over many years and for which there is currently no cure.
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Clinical Trial Information

Nat’l Eye Institute
800-411-1222 or www.nei.nih.gov

Clinical trials have guidelines called “inclusion” and “exclusion” criteria. These criteria (age, gender, type and stage of disease, etc.) keep participants safe and ensure researchers will be able to answer the questions they plan to study.

Keep Your Sight

KeepSight.com is a free public service website that helps you monitor your vision between routine visits to your eye doctor. There is never a charge for using this site.

The site is founded by Mark Roser, a macular degeneration patient who was frustrated by the lack of quality self-monitoring tools. The KeepSight tools give better results than traditional Amsler Grid self-tests. This fabulous site also has a video library, Web Seminars, and Informational videos.