Visibility

Vol. 3 issue 1, 2009

News and Research from the Envision Low Vision Rehabilitation Center

Call for submissions and registration now open for Envision 09, Sept. 9-12 in San Antonio, Texas

The Envision Conference is a multi-disciplinary low vision rehabilitation and research conference. Each year, hundreds of low vision professionals come together to advance the state-of-the-art in low vision rehabilitation. Submissions for clinical education, research presentations and posters are now open through April 30, 2009.

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ENVISION CONFERENCE 2009

Vision Loss and Fall Prevention

Envision Low Vision Rehabilitation Center and Wichita State University's Regional Institute on Aging collaborate on fall prevention research and Outreach Project

Statistics indicate that low vision and vision impairment are linked to be the second leading cause of falls among the elderly.[1] A Centers for Disease Control study found that 1.8 million elderly not living in nursing homes reported difficulty with bathing, dressing and navigating around their home, in part because of a visual impairment. However, fewer than two percent reported using assistive equipment such as telescopic lenses and canes, which could improve their safety.[2] Karen Kendrick, OTR/L, CLVT and Michael Epp, Director of Outreach & Continuing Education, staff from the Envision Low Vision Rehabilitation Center, are working on a collaborative effort to mitigate the risk of falls due to vision impairment. Part of their contribution includes a vision-related fall risk assessment tool for the project.

In Kansas, the fall-related death rate among older adults has been consistently high, ranking 20th in the nation, based on 2000-2003 statistics.[3]

Vision Loss and Fall Prevention continued on page 2

ENVISION Low Vision Rehabilitation

We're back!

James B. Nolan, Ph.D.,
Director of Research, Envision

As you may know, Visibility has taken a short break, but we are back and stronger than ever! The newly revamped and expanded Visibility will inform readers about the happenings at the Envision Low Vision Rehabilitation Center, discuss issues of clinical importance to optometrists, ophthalmologists and rehabilitation professionals, provide updates on conferences, including the Envision Conference, and share with our readers critical issues regarding research findings influencing the vision science and vision rehabilitation communities. Research is critical for advancing practical clinical and visual rehabilitation applications. Envision is supportive of an internal research program that addresses both applied and theoretical research.

In this issue, you will read about the most current research that was presented at the Envision Conference held in San Antonio, Texas in September. Envision research also supports activities at annual meetings hosted by the Association for Research in Vision and Ophthalmology (ARVO), Vision Science Society (VSS), the Optical Society of America (OSA), as well as a host of others.

You can count on Visibility to keep you current on important research findings from Envision and research centers throughout the world. Our goal is to provide relevant and quality information to you - the vision rehabilitation and vision science professional. We hope you are equally pleased with our efforts.

Vision Loss and Fall Prevention *continued from page 1*

The high fall-related death rate coupled with current and projected demographic changes point to the reduction of falls and fall-related injuries as an important public health issue for the State of Kansas. Additionally, falls lead to increased morbidity, loss of independence, reduction in physical function and activity, increased rates of hospitalization and nursing home placement, and present major economic consequences for individuals, families and the state.[3-6]

Currently, many older adults with vision loss seen at the Envision Low Vision Rehabilitation Center are at risk for falls and are involved in rehabilitation training with Envision's certified and licensed occupational therapists, low vision therapists and orientation and mobility specialist to improve daily living activities and mitigate the risk of falls from vision loss. Karen Kendrick, OTR/L, CLVT, works with many of these patients in her role as an occupational therapist.

"One of the main roles of occupational therapy is to perform a home assessment to identify possible safety hazards within the home, and then make recommendations to improve safety. People with visual impairments may have reduced acuity, reduced visual fields and reduced contrast sensitivity. All of these areas can increase the risk of falls within the home. Addressing contrast manipulation by something as simple as recommending furniture to contrast with the carpet or marking the edges of the stairs with contrasting tape can reduce falls," Kendrick says.[7]

Assistive devices for ambulation, such as walkers or canes, may be recommended. Other recommendations to reduce the risk of falls include grab bars and bathroom equipment such as a tub transfer bench, shower chair, raised toilet seat, or versa frame for the toilet. An assistive reacher tool to pick items up off of the floor can reduce the risk of falls while reaching for items at lower surfaces.

Recommendations for modifying homes include hand rails on both sides of stairs, picking up throw rugs and ensuring there are no electrical cords on the floors in areas where they may be ambulating. Again, the bathroom is very important. Making sure grab bars and other proper equipment are used for bathing and toileting is key. Adequate and correct lighting in the home and night lights are also critical to home safety for an individual with low vision.

Low vision and blindness increase significantly with age, particularly for people over age 65. People 80 years of age and older currently make up eight percent of the population, but account for 69 percent of blindness. A study sponsored by the National Eye Institute (NEI) provides an up-to-date estimate of the burden of visual impairment. The NEI reports that in 2002, there were 39,216 Kansans living with visual impairment, and 12,502 with blindness.[8] Vision impairment is a large contributor to falls in the senior population. Research shows a strong correlation between decreased balance and reduced acuity or visual field deficits, therefore increasing the risk for falls.[9] Contrast sensitivity deficits also create safety hazards, leading to falls because of uneven surfaces. However, with the combination of orientation and mobility training for gait and occupational therapy to address contrast manipulation in the home, removal of safety hazards, and usage of filters and adaptive aides, fall risk can be lowered.

The Envision and WSU collaborative project objective is to develop the Falling Less in Kansas (Falling LinKS) toolkit to help communities plan, implement and evaluate a local, self-sustainable falls-prevention program. The toolkit will be based on recommendations of the Centers for Disease Control and Prevention (CDC), Department of Health and Human Services and the National Council on Aging (NCOA) for fall risk reduction and include: increasing regular physical activity, evaluating and resolving medication issues, identifying and referring vision problems and evaluating and resolving home safety issues. The toolkit will: (1) build upon and strengthen local partnerships and build on local resources and infrastructure, (2) be implementable at the local level, across Kansas (3) provide an ongoing, sustainable and repeatable service, and (4) go beyond evaluation of fall risks to include prevention, awareness, solutions and interventions that actually reduce fall risk in individual participants. Recently, the collaborative group was awarded a significant grant from the United Methodist Health Ministry Fund to move the project forward.

Karen Kendrick, OTR/L, CLVT, is a practicing occupational therapist and certified low vision therapist at Envision Low Vision Rehabilitation Center, practicing out-patient low vision therapy with emphasis in neuro-visual deficits.

Michael Epp is the Director of Outreach & Continuing Education for Envision Low Vision Rehabilitation Center.

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Call for submissions and registration *cont. from page 1*

Dr. Alfred A. Rosenbloom visits with an exhibitor during Envision Conference 08.

To submit and to register for the Conference, visit the Conference website, www.envisionconference.org.

"The Envision Conference has become the national leader in multi-disciplinary low vision rehabilitation programs. The high quality, scope, depth and timeliness of the lectures and the workshops are exceptional..."

— Dr. Alfred A. Rosenbloom
The Chicago Lighthouse

The Envision Conference is quickly becoming *the* annual conference on low vision rehabilitation and research. The conference is attended by multiple professionals in the low vision field including ophthalmologists, optometrists, nurses, low vision therapists, orientation and mobility specialists, diabetic educators and vision researchers. Attendees can earn continuing education credit for their respective licensures and certifications. Courses are submitted to the Council on Optometric Practitioner Education (COPE), ACVREP, ACCME and ANCC for approval, and Envision is an Approved Provider of Continuing Education by the American Occupational Therapy Association (AOTA). Envision 08 was approved for 38 hours of COPE CE for optometrists and 64 hours of ACVREP and AOTA continuing education units.

Dr. Alfred A. Rosenbloom, chair emeritus of the Chicago Lighthouse's Low Vision Clinic, delivered the low vision rehabilitation keynote address at Envision 08. Dr. Rosenbloom addressed the evolutionary growth of the multidisciplinary field of low vision care and the continuing need for high quality education in this area.

He said, "Today, low vision services are being driven by the demographic imperative of the aging population and the high incidence of vision-destroying diseases. The evolution of the team approach to a broadened service results in the definition of low vision rehabilitation as a process which comprises a range of services directed in a coordinated manner toward helping visually impaired persons achieve fulfilling and realizable goals in those activities affected by their vision loss. Low vision trends reflect a convergence of social, cultural, economic, demographic and clinical-scientific factors that have spurred (and will continue to spur) its growth and prominence. The Envision Conference has become the national leader in multidisciplinary low vision rehabilitation programs. The high quality, scope, depth and timeliness of the lectures and the workshops are exceptional. I highly recommend any professional engaged in the care of the low vision patient attend."

Alfred A. Rosenbloom, OD, MA, DDS, is a diplomate in low vision of the American Academy of Optometry. Dr. Rosenbloom was director of the Chicago Lighthouse's Low Vision Clinic from its founding in 1956 to 2000, and continues to see patients.

Please contact Michael Epp, Director, Outreach & Continuing Education, with questions about the Envision Conference at (316) 440.1515 or email michael.epp@envisionus.com.

RESEARCH Highlights

James B. Nolan, Ph.D.
Director of Research, Envision

Driving With Impaired Vision: A Hot Topic at the Envision 08 Conference

At the recent Envision Conference, Dr. Eli Peli of the Schepens Eye Research Institute, Harvard Medical School served as moderator for a research session entitled "Driving with Impaired Vision." This session included numerous speakers who discussed issues pertaining to low vision driving and driving with bioptic telescope assistive devices.

Bioptic telescopes are small telescopes mounted at the top of the carrier lens in spectacles. The scopes are used intermittently for tasks such as reading road signs,

"Bioptic telescopes have been utilized as an aid for driving by individuals who might otherwise not be licensable due to their reduced visual acuity."

— Dr. Henry Greene

determining the status of traffic signals and briefly scanning the road ahead for hazards, traffic flow patterns, signage and pedestrians. Dr. James Nolan of Envision noted that "forty-seven states in the United States currently allow for the usage of bioptic telescopes, at some level, for the purpose of aiding low vision drivers in the licensure and driving process."

While some states allow for the telescopes to be used for reaching certain required acuity standards during the licensure process, other states allow telescopes to be used during driving situations only while licensing is determined without the telescope. Dr. Henry Greene from the Department of Ophthalmology at the University of North Carolina noted that bioptic telescopes "have been utilized as an aid for driving by individuals who might otherwise not be licensable due to their reduced visual acuity."

Bioptic devices are produced in both the Galilean optical design and the larger Keplerian design with magnification based on the power of the scope. Most states that allow for their use in the licensure process will not allow for magnification strength greater

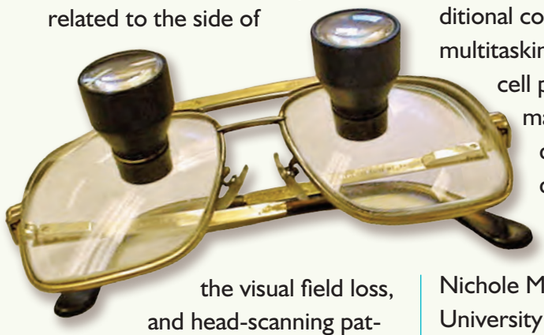
James B. Nolan, Ph.D.

than a 4x power scope. According to Dr. Greene, "the clinical factors including visual acuity, response to magnification, central field loss, contrast sensitivity and ocular dominance can impact the individual response to bioptic telescopes and hence can inform the appropriate choice of device." Furthermore, "the telescopes should

continued on next page

be selected to address the visual needs of the user, fit in such a way as to maximize their functionality, all while complying with the legal aspects of their use."

Driving and subsequent licensure may be a viable option for those patients who exemplify differing forms of hemianopias as well. Alex Bowers of the Schepens Eye Research Institute at Harvard Medical School noted that "22 states in the United States prohibit those with hemianopia from driving, resulting in a loss of independence and quality of life." In a simulator study of 12 drivers with complete homonymous hemianopia and without hemi-spatial neglect, Bowers noted, "we found widely varying levels of detection performance (varying from 10 percent to 90 percent) for pedestrian figures on the side of the visual field loss, lateralized biases in lane position related to the side of the visual field loss, and head-scanning patterns strongly influenced by the side of the visual field loss." These results can be taken in combination with an additional study that involved on-road driving in Belgium. Bowers stated that, "we evaluated the potential benefit of peripheral prism visual field expansion glasses as a visual aid for drivers with hemianopia." The results indicated that, "the drivers had better reactions to unexpected events (e.g., pedestrians and other traffic on the road) when using the peripheral prism glasses than when wearing fake prism glasses." Bowers further noted that, "the results of our simulator and on-road studies provide evidence of widely varying levels of compensation and detection abilities amongst drivers with hemianopia, suggesting that fitness to drive should be evaluated on an individual basis."



While low vision drivers have physical constraints to deal with, it should be mentioned that additional constraints (for example, multitasking; i.e., talking on the cell phone and driving) may make driving even more difficult and potentially dangerous. Regarding "cognitive load" implications while driving, Nichole Morris of Wichita State University reported on a study with her colleagues that addressed the effects of secondary tasks, such as multitasking, on driver look-out behavior and driving performance. Morris noted that, "results of the study reveal that driving performance is significantly more impaired while performing a secondary manipulation task, such as a task requiring mental organization of a string of letters, than performing a verbal rehearsal task of equivalent difficulty, such as memorizing a six-word string and verbally repeating them, and that visio-spatial tasks, tasks such as mentally rehearsing a route, and verbal secondary tasks produce the same level of interference with overall driving performance."

"The results of our simulator and on-road studies provide evidence of widely varying levels of compensation and detection abilities amongst drivers with hemianopia, suggesting that fitness to drive should be evaluated on an individual basis."

– Dr. Alex Bowers

Bioptic driving is not unique to the United States. Aart Kooijman from the University of Groningen and the Royal Visio, National Foundation for the Visually Impaired and Blind in the Netherlands discussed his demonstration project to assess the viability of implementing bioptic driving in the Netherlands between 2004 and 2006 with the hopes of introducing bioptic driving as a legal option for visually impaired people in the Netherlands. In their study, nine subjects eventually passed official on-road tests of practical fitness to drive. According to Kooijman, "The project convinced the participating professionals, in particular, the driving instructors, driving examiners and the licensing authority, that people with moderately reduced visual acuity can be trained to achieve an adequate level of proficient and safe driving as assessed by the national driving licensing professionals when using a bioptic telescope for the road conditions in the Netherlands." As a final note on this project, Kooijman's goal of implementing bioptic driving as a legal option for visually impaired people in the Netherlands has been met. According to Kooijman, "the request has been granted and the legal procedures for implementation are in process."

Note: all quotes are referenced directly from presenter speeches listed below and their submitted presentation abstracts.

Eli Peli, OD, MS
Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, MA, *Moderator*

Henry Green, OD, FAAO
Department of Ophthalmology, University of North Carolina,
"Clinical and Technical Considerations in Prescribing Bioptic Telescopes for Driving"

James Nolan, Ph.D.
Envision, University of Kansas Department of Ophthalmology
"Current Perspectives on Bioptic Driving: A Review of State Licensure Regulations"

Aart C. Kooijman
University of Groningen, Groningen and the Royal Visio, National Foundation for the Visually Impaired and Blind, Huizen, The Netherlands
"Demonstration Project Introducing Bioptic Driving in the Netherlands"

Dr. Alex Bowers
Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, MA
"Driving with Hemianopia: Simulator and On-Road Studies"

Nichole Morris
Wichita State University
"Sources of Secondary Task Interference with Driving: Executive Processes or Verbal and Visio-Spatial Rehearsal Processes?"

Noted research scientists in attendance at 2008 Envision Conference

James B. Nolan, Ph.D., Director of Research, Envision

Vision scientists from as far away as The Netherlands gathered at the Envision Conference, recently held in San Antonio, Texas Sept. 4-6, 2008. The Envision 08 research selection committee received a record number of research abstract submissions dedicated to advancing clinical and low vision rehabilitation applications. Fifty-four submissions were ultimately selected for oral and poster presentations. Envision 08's research presentations were delivered by prominent professionals in the vision science field. Notable scientists moderating sessions at this year's conference included Eli Peli, OD, MS of the Schepens Eye Research Institute, Department of Ophthalmology, Harvard Medical School, Boston, MA; Don Fletcher, MD of the Smith-Kettlewell Eye Research Institute and the Frank Stein and Paul S. May Center for Low Vision Rehabilitation at the California Pacific Medical Center, San Francisco; James Nolan, Ph.D. from Envision and the University of Kansas Department of Ophthalmology; Matt McMahon, Ph.D. from Second Sight Medical Products, Inc; J. Vernon Odom, Ph.D., Professor of Ophthalmology and Physiology at the West Virginia University Eye Institute, Morgantown, WV; George Timberlake, Ph.D. from the Department of Ophthalmology at the University of Kansas Medical Center; Ron Schuchard, Ph.D. of the ASR® Device Study Group and Atlanta VA Rehabilitation R&D Center of Excellence, Emory University; and Robert Massof, Ph.D. of the Wilmer Eye Institute, Johns Hopkins University School of Medicine, Baltimore, MD.

The highlight of the research program was a keynote address given by Dr. Robert Massof who informed conference attendees about the importance of proper research methodology in outcomes-based studies with his talk entitled, "Measuring the Effectiveness of Low Vision Rehabilitation".

Envision 09 will be held Sept. 9-12, 2009 at the Westin Riverwalk Hotel in beautiful San Antonio, Texas. Abstract submission is now open at www.envisionconference.org and you can count on another outstanding research program at this year's conference.

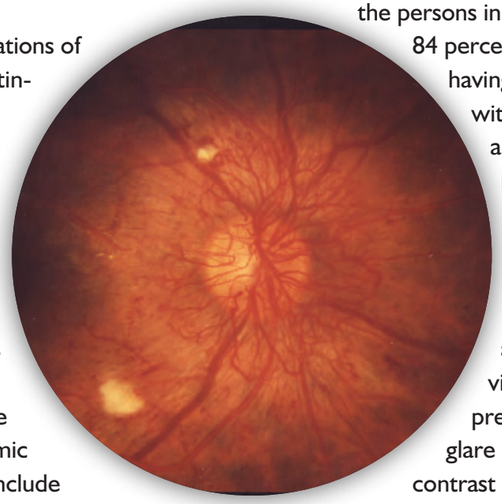
If you have questions regarding research abstract submission, please contact James Nolan, Ph.D. at james.nolan@envisionus.com.

GUEST COLUMN

William L. Park, OD, FAAO

Interdisciplinary Low Vision Rehabilitation of Diabetic Visually Impaired Patients

As a common cause of vision loss in the US, diabetic retinopathy has an estimated prevalence among patients of 40.3 percent for any degree of retinopathy, and an 8.2 percent incidence of severe retinopathy. More significantly, studies reveal that diabetic retinopathy is a primary cause of preventable blindness. As a result, prevention and screening methods are vitally important in avoiding potential blindness.[1]



Manifestations of diabetic retinopathy are most often asymptomatic until vision loss occurs. Diabetes is a progressive disease with systemic risks that include increased risk of falls, impaired range of motion, neurological and cardiovascular disease, peripheral neuropathy, compromised wound healing, decreased blood flow and amputation. All implications could be precipitated by a lack of general well being, depression, poor diet, obesity and lack of exercise. This is further complicated by other co-morbidities that impact overall health and participation in activities of daily living.[2-3]

Diabetic retinopathy can be extremely debilitating. Patients with diabetes who are at high risk for developing retinopathy should be targeted as a primary audience for education, counseling and early referral for low vision rehabilitation.

In a study of diabetic patients at Johns Hopkins, Park[4] found of all the persons in this study, 84 percent expressed having difficulty with orientation and mobility and safe travel, secondary to decreased visual fields and/or visual acuity, presence of glare sensitivity, contrast sensitivity loss and absence of binocularity and depth perception. This was further complicated by significant systemic co-morbidities present in this study, establishing interdisciplinary staff concern for functioning and performance in overall safety, general well being and quality of life issues.[5-7]

Other studies have shown that there is a variance in disease prevalence and the use of eye care by racial, ethnic and age populations in individual states' populations.[8]

A recent survey of US nurses and physicians identified five key goals that need to be accomplished to improve diabetic outcomes.

1. Reduce barriers to effective therapy
2. Promote effective self-management
3. Improve psychological care for persons with diabetes
4. Enhance communication between healthcare providers and people with diabetes
5. Promote communication and coordination between health care providers[9]

The diabetic epidemic emerged in the 20th century and remains unrestrained into the 21st century. It has already taken on extraordinary implications on the US population through its acute, chronic and visual complications, disability and premature death. Trend data suggests that the burden will continue to increase and the effort to prevent and delay the complications of diabetes is urgently necessary.[10]

It is clear that the historic criteria of blindness does not accurately reflect the level of vision necessary to function effectively in today's society. Economic blindness is the level of impairment that effects employability and/or the ability to live independently, and has been shown to occur at a visual acuity of 20/69.[11]

We have found that early referral for low vision rehabilitation, even with near normal to mild visual impairment, greatly assists in the educational and rehabilitative process of patients with progressive ocular, neurological and systemic disease, both short-term and over time.

Referral for low vision rehabilitation of the diabetic patient (and other visually impaired patients) is often poor and untimely, resulting in decreased quality of life, decreased job performance, lack of adequate diabetic management, depression, and has a significant negative socioeconomic impact to healthcare costs and society.[6-7,12]

Overcoming this dilemma can be accomplished by providing early education for resources, coordination of interdisciplinary care, maintaining the capability to perform home occupational and avocational tasks, appropriate use of assistive devices for ADL/IADLs and addressing psychosocial and psychological manifestations before they seriously compound quality of life issues for that person.

An evaluation by a low vision rehabilitation team consisting of a low vision practitioner (optometrist or an ophthalmologist), a certified low vision therapist, and/or an occupational therapist in the same clinical environment, can dramatically and expeditiously initiate improvement in visual function and provide patient education about resources, therapeutic interventions and environmental adaptations along with enhancing quality of life. It is also acutely clear that a clinical endeavor as simplistic as a meticulous refraction and change in their habitual prescription may greatly improve visual acuity and performance in ADLs and instrumental activities of daily living (IADL) function.

William L. Park, OD, FAAO, is in private practice in Wichita, Kan. Dr. Park is committed to outreach efforts in stemming the epidemic of diabetes. He works exclusively with patients referred for low vision evaluation, low vision rehabilitation and neurological vision loss. He is a past Director of Low Vision Services, Lions Research & Rehabilitation Center, Wilmer Eye Institute-Johns Hopkins University. Dr. Park can be reached at William L. Park, OD, LLC, www.parklowvision.com, 610 N. Main, Suite 201 Wichita, Kan. 67203, (316) 440-1690 or drpark@parklowvision.com.

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Case report: **A timely referral in maintaining quality of life**

William L. Park, OD, FAAO

A 62-year-old woman was seen for low vision rehabilitation as a result of visual impairment due to proliferative diabetic retinopathy. Chief goals were to read labels, directions, draw up her own insulin, balance her checkbook, see her computer and if at all possible, drive and return to work.

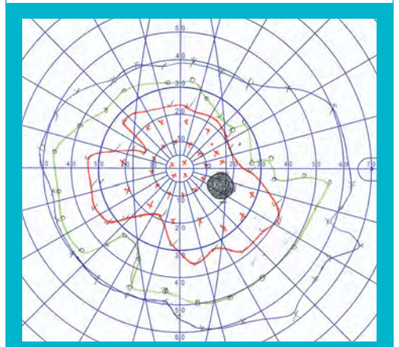
Referred by her retinal specialist, there was a myriad of systemic difficulties that affected her life and included: coronary artery bypass (3 procedures), peripheral neuropathy resulting in a history of falls (with a subsequent right foot fracture stepping off a curb she didn't see), decreased endurance, decreased range of motion of all limbs and balance difficulty.

Visual acuity was variable due to her long standing diabetes mellitus (25 years) and her overall health. Multiple visits would be necessary to establish reliability in the prescription for best visual acuity to be achieved.

Contrast sensitivity was severely impaired, to the level in which this patient needed more than 4x contrast to recognize low contrast objects. As a result, this loss of contrast posed serious implications for future falls and traveling safely down stairways. Simplistic tasks such as facial recognition were either impossible or problematic.

After four visits, best corrected visual acuity (BCVA) was established as 20/70 (primarily due to poor diabetic management).

The patient was subsequently referred to occupational therapy for education on insulin management, filters for enhancement of contrast and reduction of glare, assistive devices (high plus readers, video magnification, hands-free magnifiers) for reading, participation in avocations and diabetes management. Activities of daily living and safety were addressed at an in-home assessment.



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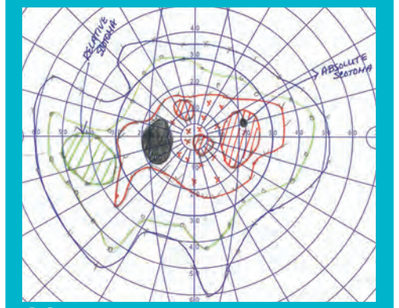

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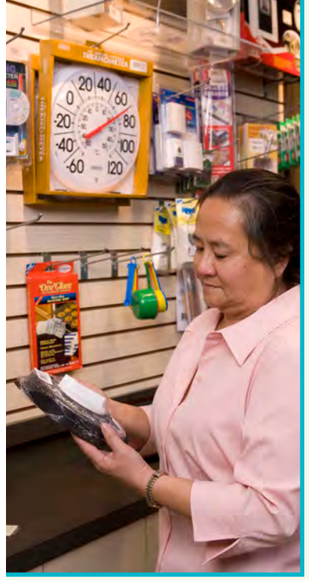
An on-site work assessment established patient's vocational responsibilities and resultant recommendations. The patient was made aware over the course of 11 visits by the low vision practitioner and occupational therapist of her visual performance capability in performing her occupational role as a radiology technician using assistive devices vs. early disability retirement. Of paramount concern was her psychological status short-term and long-term following any job-related decision.

The patient was further counseled on her visual field loss caused by the effect of the treatment and management of her retinal disease, and the implications posed by this on safe travel, orientation and mobility, driving and overall personal safety.

Ultimately, DK was resolved and happy with her choice of retirement and with the beginning of a new phase of her life; enjoying her retirement on her terms, without compromise of her avocations, lifestyle or general well being, as a result of her benefiting from low vision rehabilitation.

For most visually-impaired individuals, low vision rehabilitation is seldom solely about magnifiers and assistive devices, but rather resolving all their issues. This case greatly illustrates, more significantly, the importance of an interdisciplinary team approach in achieving patient goals.



ENVISION Low Vision Rehabilitation

UPDATE

Envision Everyday, Envision Low Vision Rehabilitation Center move

The Envision Low Vision Rehabilitation Center and Envision Everyday adaptive aids store have moved to a new location in downtown Wichita, Kan. The new Low Vision Rehabilitation Center, store and supporting programs have expanded space to serve more people with low vision. One immediate benefit of the new and expanded space is the new activities of daily living training area, Independence Boulevard. Independence Boulevard is the only low vision simulated environment of its kind in Kansas, simulating a grocery store, restaurant, streetscape and fully-functioning apartment living area. Patients can learn how to accomplish everyday tasks while training with certified low vision specialists and licensed occupational therapists. In the future, Independence Boulevard will also offer the perfect venue to conduct pre- and post- activities of daily living measures for Envision's low vision rehabilitation research programs.

Envision welcomes new orientation and mobility specialist

Tyler C. Hamilton, MA, COMS, joined the Envision Low Vision Rehabilitation Center this January. Tyler has a BS in Psychology from Stephen F. Austin State University, a BA in Sociology from the University of Arkansas Little Rock, and a Masters in Rehabilitation for the Blind from the University of Arkansas Little Rock. Tyler is certified by the Academy for Certification of Vision Rehabilitation and Education Professionals (ACVREP) as a Certified Orientation and Mobility Specialist (COMS). Tyler will provide orientation and mobility to patients of all ages referred to the Envision Low Vision Rehabilitation Center and Envision employees, participating in the outreach support programs offered by Envision. Tyler recently worked as COMS for Lions World Services for the Blind in Little Rock, Arkansas.

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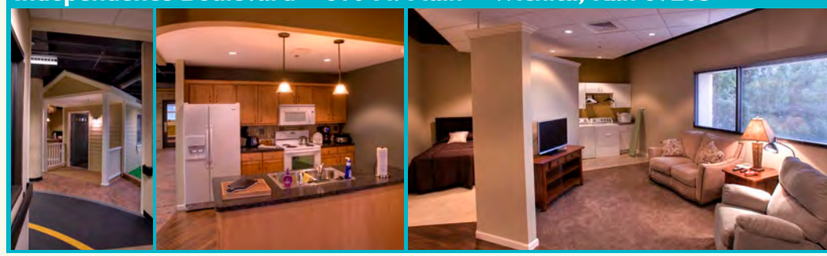

Members of the Pioneers of Perspective support group are entertained by members of the Collegiate Middle School Choir.

Envision has expanded support group offerings

Envision Low Vision Rehabilitation Center has several monthly support groups available to patients, caregivers and people who are blind or low vision. Two support groups work with children experiencing vision loss: Route 4-12, for children ages 4-12, and Laughing Out Loud (LOL) for teens through transition age 22. Pioneers of Perspective is for adults over the age of 50. Proyecto Enfoque reaches out to the Hispanic community and Envision After Hours is for Envision employees who are visually impaired. Envision is also a major supporter of the Kansas Association for Parents of Visually Impaired Children (KAPVI), an organization designed to assist parents and families of children with visual impairments. Please call **(316) 440-1600** for more information.

ENVISION® Low Vision Rehabilitation

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To submit an article or case study to be considered for publication in Visibility, please contact Michael Epp, Director of Outreach & Continuing Education, (316) 440-1515 or michael.epp@envisionus.com.

A student learns how to use JAWS, a screen reading software, during the 2008 Envision AT Camp.

Fourth annual Assistive Technology Camp for visually impaired youth

For children with visual impairments, assistive technology (AT), such as screen readers and magnification software, is key to accessing a computer. As part of Envision Low Vision Rehabilitation Center's pediatric programs, the fourth annual Envision Assistive Technology Camp will be held this year in June. This week-long residential camp provides assessment and instruction in vocational computer skills utilizing the latest in assistive technology software and hardware. Call **(316) 440-1600** for more information.

InSight Education Resource Guide – Low Vision Education Program

Many elementary school children may not know how to respond or interact with individuals who are blind or low vision. For this reason, Envision has created the InSight Education Resource Guide, a curriculum supplement aimed at educating 2nd – 5th graders about vision loss. Lesson plans and activities teach that people who are visually impaired can do almost anything a sighted person can do, just differently. Initial feedback from four Wichita, Kan. schools has been extremely positive. Guest speakers are available upon request and lesson plans can be found online at www.envisionus.com. Contact David Austin, Manager of Public Relations & Events, **(316) 440-1518**, **david.austin@envisionus.com**, to learn more about this program.

Students from Gammon Elementary learn sighted guide techniques during a recent classroom presentation.

About Envision Low Vision Rehabilitation

The Envision Low Vision Rehabilitation Center provides comprehensive, multidisciplinary low vision rehabilitation and services for people with vision loss. The center's goal is to help patients maximize their independence and realize their best functional vision. The center achieves this by offering a comprehensive low vision rehabilitation program unique to the needs of each patient.

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