

IMPROVING LIMITED VISION

A multitude of optical and high-tech devices offer a new outlook to patients with degenerative eye diseases.

by Ted Kreiter

When a stronger eyeglass prescription may no longer improve vision, there is still a place to turn for help with age-related eye disorders. Low-vision ophthalmologists and optometrists specialize in making the most of whatever sight a person still has. Now, an array of optical and electronic devices allow the severely vision-impaired to read, shop, go to movies, pursue hobbies and continue their jobs.

"Most people who are considered blind are not blind," says Dr. Lynne Noon, a low-vision optometrist practicing in Arizona. "They have a lot of useful vision. They just need low-vision devices such as closed-circuit television, magnifiers, or special glasses."

The largest percentage of low-vision patients suffer from macular degeneration, but many also have lost vision due to retinitis pigmentosa, diabetic retinopathy or other eye problems. Dr. Noon says low-vision practitioners

can't return patients to 20/20 vision, but they can provide improved vision to 99 percent of patients they see.

"People come into my office quite often who have recently had a vision loss or they've maybe had limited vision for quite a while and they don't think anything can be done," she says. "They're depressed when they come in, and I think when they leave, they realize how many options are available to them and that they can remain independent."

Through the use of low-vision aids, Dr. Noon says, "Most everybody with low vision can accomplish all their tasks, except maybe driving a car. And in some states, that may be possible."

Let There Be Light

Lighting is half the story in treating low vision, according to Dr. Noon. Improved lighting can make a night-and-day difference for most patients. As we age, our light requirement for seeing properly increases every decade. But it is the quality and placement of light that matters most for low-vision patients.

Dr. Noon recommends white incandescent bulbs such as the GE Reveal bulb, which is closest to natural sunlight. Incandescent light is best because it is cooler, she says. Halogen bulbs are too hot to be used

close to the face.

For reading or working, Dr. Noon recommends using a 60 or 75 watt bulb positioned within a foot of the page or work materials. "That is typically enough light. You don't want to make the mistake of putting a 150-watt bulb in and then getting a lot of glare," she says. Glare is the enemy of low-vision patients.

To avoid glare when working or reading, windows should be behind or to the side. A computer or TV should not face a window that may reflect light onto the screen. Working and reading lights should be placed in a gooseneck-type lamp to prevent shadows. In addition, the light should come over the shoulder of the side with the better eye.



Among more advanced devices providing improved vision for patients with degenerative eye disease are wearable video magnifiers such as the JORDY (above), which enables the wearer to read and watch television and movies.



Getting the big picture: closed-circuit TV (left) enlarges print up to 60 times for easier reading of books, magazines and newspapers. Portable magnifiers like the Pico (above) help low-vision patients shop and perform other common daily tasks.

Magnification and Contrast

Glasses are the simplest low-vision aid," Dr. Noon says. "A lot of the time, people are told when they go for a regular eye exam that their glasses are as strong as they can be. But I deal in much stronger lenses. Glasses that magnify up to 20 power are available."

But magnifying glasses have drawbacks, she adds. "The stronger you make them, the closer you have to hold things." Fortunately, new technology has provided improved forms of magnification. Dr. Noon often recommends the Pico, a portable electronic magnifier that patients can carry with them to the grocery store to read labels or small type in magazines, books, or telephone directories. Electronic magnifiers increase size and also enhance contrast. "It's important because these people need contrast enhancement. You can't get contrast with glasses or a telescope," Dr. Noon says.

For improving distance vision, doctors may prescribe bi-optic telescopes, which are simply small telescopes attached to eyeglasses. "There are 40 states in which people are allowed to drive using bi-optic telescopes," Dr. Noon says, "and I think soon that will probably be the case in almost every state."

Another wearable device particularly helpful for patients with advanced macular degeneration is the JORDY, a Space Age-looking pair of sunglasses that is actually a video magnifier. By allowing people to see as if looking through a camcorder, it can help them watch television and movies, write checks, and recognize faces.

No single vision device will be a cure-all, however. Most people need four to five different low-vision aids to accomplish every task, Dr. Noon explains. "What you are going to use at the house with closed-circuit TV, you are not going to take to the grocery store. What you may use to see far away is not what you are going to be using for near. So you have to change people's mindset that one pair of glasses is going to do everything."

Thousands of low-vision products are now on the market. Most insurance companies and Medicare will not cover them, but they will pay for low-vision services. To find a low-vision practitioner, Dr. Noon recommends first asking your optometrist or ophthalmologist. If they can't help, call your state optometric association. ♣