

# **SmartSight™**

## ***Making the Most of Remaining Vision***

Is it difficult for you to read the newspaper, see price tags or set dials? Are you bothered by glare? If you answered “yes” to any of these, then SmartSight is for you. Making the most of the vision you have is smart. You may benefit from tips about lighting and from the tools, techniques and resources of vision rehabilitation. Losing vision does not mean giving up your activities, but it does mean applying new ways of doing them. SmartSight can help.

### **Patterns of Vision and Vision Loss**

**Central vision** is the vision we use when we look directly at something. It gives us the greatest detail for reading print or recognizing faces. Macular degeneration (AMD) affects central vision, but spares peripheral vision. Diabetic retinopathy can affect central or peripheral vision.

**Peripheral vision** is the vision we use to see everything around the edges. While not detailed, like central vision, it is important for getting around. Glaucoma affects peripheral vision first. Strokes can affect one side of the peripheral vision. Using peripheral vision for details requires magnification.

**Contrast sensitivity** is the ability to distinguish between objects of similar tones or color intensity, such as milk in a white cup, a blue sock from a black one, or facial features. All eye problems can decrease contrast sensitivity.

**Depth perception** is the ability to judge the position of objects in space. New vision loss in one eye can affect depth perception.

**Visual processing:** Like a camera, our eyes have a lens that focuses light onto the retina (like the film in a camera), and an optic nerve that carries the images to our brain. Our brain “develops” the images into what we experience as vision. Impairments in any of these elements affect our vision in different ways.

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**The Experience of Vision Loss**

It always comes as a shock to learn that your vision loss is irreversible. Acknowledging the anger and frustration of new vision loss and getting help working through these feelings are important. Pushing these feelings inside can result in depression, noted by fatigue and lack of interest. Address this problem with treatment and counseling, and make the changes needed to stay active.

**You Are Not Alone**

We all need support in times of loss. A good support group helps you realize that your value to yourself and others does not depend on your vision. You are worth what it takes to make the most of the vision you have.

**The Phantom Visions of Charles Bonnet Syndrome (CBS)**

About 20 percent of people with vision loss see lifelike images they know are not real: flowers, people, patterns, etc. This is called Charles Bonnet Syndrome. It is not a loss of mental capacity; it is just part of vision loss for some.

**Making the Most of Remaining Vision —  
*Making Things Brighter***

*Improve lighting.* Let natural light shine on your work. Use a gooseneck lamp with a 45-65W indoor floodlight or full spectrum bulb. Carry a penlight.

*Reduce glare.* Indoors, cover polished wood tables and shiny counters; wear yellow or plum clip-on or fitover glasses. Outdoors, try dark yellow, amber or plum glasses and a visor.

*Increase contrast.* Use a black ink, gel or felt tip pen instead of a ballpoint. Put coffee in a white cup, oatmeal in a black bowl, white soap in a dark soapdish. Use plain tablecloths so items don't get lost in the pattern.

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### ***Making Things Bigger***

*Move closer.* Sit close to the TV, and up front at performances.

*Enlarge.* Get large checks and large-print playing cards, bingo cards, cross-words, phone dials, TV remotes, calendars, keyboards and books.

*Magnify.* Magnifiers come in many powers and types, suited to different people and different tasks: hand-held types for price tags and menus, for example, and stand-types and CCTVs (closed circuit TVs) for sentences.

### ***Finding and Using Your “Next-Best Spot”: Scotomas and PRLs***

“Scotoma” means blind spot. The Preferred Retinal Locus (PRL) is the “next-best spot” when there is a blind spot in the center. It may be on one side or above or below the original “center” of your vision. To find yours, imagine that the object you want to see is in the center of a large clock face. Move your eyes along the clock numbers and notice when you see the center object most clearly. Use that same viewing direction for other objects.

### ***Organizing***

Separate black clothes from blue. Designate spots for the items in your refrigerator, and for your keys and wallet. Minimize clutter.

### ***Labeling***

Mark thermostats and dials with high contrast markers from a fabric store; mark medications with markers or rubber bands; safety-pin clothing labels.

### ***Substituting: Let’s Hear it for Ears!***

Get books and magazines on tape free on loan. Also look for talking watches, clocks, calculators, glucometers and computers (check the Resources at the end of this document).

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### **Participating**

You are loved because you are you, not for your eyes. Don't isolate yourself. Keep playing golf; your friends will watch your ball. Keep your social group or volunteer job. It might require lighting, large print cards, a magnifier or a ride. Ask. There is nothing independent about staying home to avoid asking for help.

### **Driving**

If vision loss threatens your driver's license, do not despair. Seek creative solutions. To assess your driving, ask yourself: Do cars appear unexpectedly? Do drivers honk at you? Are you having fender-benders? If your answer is "no," you are probably safe. Pick your times and routes carefully and consider yellow, amber or plum sunglasses for glare. If you answer "yes," consider the following transportation alternatives:

### ***Transportation Alternatives: Creative Solutions***

Use the many transportation alternatives that exist so you can continue going places. Hire a driver, share your car, arrange for a taxi, buy gas for a friend who drives, use senior and public transit systems. Try a three-wheel bike or battery-powered scooter at walking speed. Walking is wonderful if you are able. Set the pace for your peers by using these alternatives now. The future will offer even more solutions.

### **For Family and Friends**

Your loved one with vision loss needs to be empowered to do as much as possible independently. Recognize the great challenge of vision loss, but don't take over their tasks. Instead, help identify the adjustments they need to make to maximize their independence, and trade tasks as appropriate.

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### **Vision Rehabilitation**

Vision rehabilitation can help you make the most of your vision. Comprehensive services include a low vision evaluation and rehabilitation training. To locate services near you, contact VisionConnection (see Resources). Ask if services include:

- A low vision evaluation by an ophthalmologist or optometrist
- Prescription for devices. Are some devices loaned before purchase, or returnable?
- Rehabilitation training: reading, writing, shopping, cooking. Training for lighting and glare? Home assessment? Mobility? Resources and support groups?
- Are services free, billed to Medicare or other insurances? If not, what is the charge? (Note: Medicare covers most services, but not devices.)

### **Resources**

#### **Books and magazines on tape, loaned by mail free; tape player provided:**

- U.S. National Library Service: 800-424-8567, [www.loc.gov/nls](http://www.loc.gov/nls)
- Canadian National Institute for the Blind Library: 800-268-8818, [www.cnib.ca](http://www.cnib.ca)

#### **Books and magazines on tape, to keep, free:**

- American Printing House for the Blind: 800-223-1839, [www.aph.org](http://www.aph.org)
- Choice Magazines (bimonthly articles, unabridged): 888-724-6423

#### **Large print books and checks:**

- Books on loan, by mail, free: National Association for Visually Handicapped (NAVH): 212-889-3141, [www.navh.org](http://www.navh.org)
- Large-print checks and registers (from your bank or check catalog)

#### **Large-print materials—crosswords, bingo cards, address books, calendars:**

If not near you, by catalog

- NAVH: 212-889-3141, [www.navh.org](http://www.navh.org)
- Eschenbach: [www.eschenbach.com](http://www.eschenbach.com)
- LS&S: 800-468-4789, [www.lssgroup.com](http://www.lssgroup.com)
- Gold Violin: 877-648-8400, [www.goldviolin.com](http://www.goldviolin.com) (go to “20/20 vision”)

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### **National organizations, for support, information, and research updates:**

- Association for Macular Diseases: 212-605-3719, [www.macula.org](http://www.macula.org)
- Macular Degeneration Partnership: 888-430-9898, [www.amd.org](http://www.amd.org)
- MD Support: [www.mdsupport.org](http://www.mdsupport.org). Also video: *Learning to Live with Low Vision*.
- National Eye Health Education Program of National Institutes of Health: Offers free materials, e.g. *What You Should Know About Low Vision*, also in Spanish [www.nei.nih.gov](http://www.nei.nih.gov).

### **Vision Rehabilitation Self Help Books:**

- *Making Life More Livable*, M. Duffy, NY: American Foundation for the Blind, 2001; 800-232-3044.
- *Macular Degeneration: The Complete Guide to Saving and Maximizing Your Sight*, L. Mogk, MD, & M. Mogk, PhD, NY: Ballantine 2003; available in bookstores and at [www.amazon.com](http://www.amazon.com).
- *Overcoming Macular Degeneration: A Guide to Seeing Beyond the Clouds*, S. Solomon, MD, & J. Solomon, NY: Avon, 2000; available in bookstores and at [www.amazon.com](http://www.amazon.com).

### **To Locate Vision Rehabilitation Professionals and Services:**

**Veterans:** U. S. Dept. of Veterans Affairs: 877-222-8387, [www.va.gov/blindrehab](http://www.va.gov/blindrehab).

**Everyone:** Contact SmartSight's partner VisionConnection for directory of services at [www.visionconnection.org](http://www.visionconnection.org). In the "Help Near You" section, search under both "low vision services" and "vision rehabilitation," or call 800-829-0500, and ask the questions listed under Vision Rehabilitation above.

For more detailed information on low vision, rehabilitation and coping with vision loss, visit the American Academy of Ophthalmology Web site, [www.aao.org/aao/patient\\_ed/smartsight.cfm](http://www.aao.org/aao/patient_ed/smartsight.cfm).



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