



How to Teach People With Low Vision

Julie Garden-Robinson, Ph.D., R.D., L.R.D., Food and Nutrition Specialist

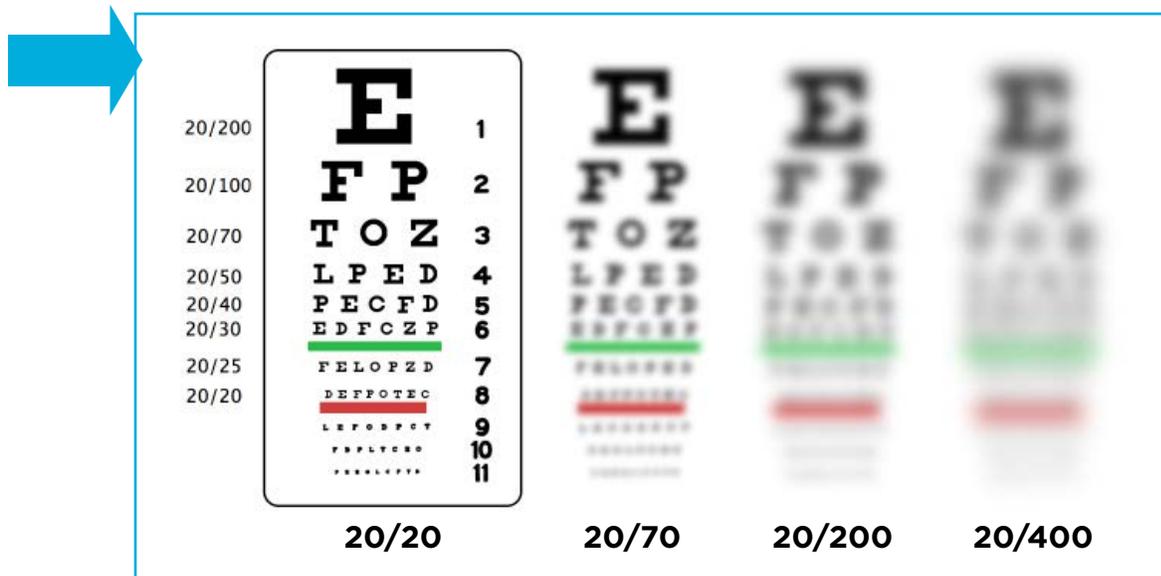
Sherri Stastny, Ph.D., R.D., C.S.S.D., L.R.D., Associate Professor, Health, Nutrition and Exercise Sciences

Casey Kjera, Program Assistant (former)

What is Low Vision?

- Perfect vision is 20/20. The American Optometric Association defines low vision as vision from 20/70 to 20/400.
- Low vision cannot be corrected with glasses, contact lenses or surgery.
- Low vision interferes with daily living activities such as reading and driving.

This is How Low Vision Looks



Common Symptoms of Low Vision

- Loss of central vision
 - Central vision is the fine, sharp, straight-ahead vision that is needed for reading, driving and recognizing faces.
- Loss of visual field
 - Visual field is the total area in which you can see objects using peripheral (side) vision while looking at a central spot.
- Loss of color vision
- Loss of ability to adjust to glare
- Loss of ability to see in dark areas



Causes of Low Vision

Four Main Causes Leading to Low Vision:

- Macular degeneration affects your sharp, central vision so what you see is blurry and performing tasks such as reading and driving become hard to do.
- Cataracts are a clouding of the lens in the eye that affects your vision by creating a cloudy image.
- Glaucoma is a disease that affects the optic nerve and leads to low vision and even blindness.
- Diabetic retinopathy damages the blood vessels in the retina of the eye, which causes vision loss and even blindness.

Risk Factors for Low Vision

- Uncontrolled diabetes
- Poor diets
- Smoking
- Poor health habits
- Aging

Statistics on Low Vision

- 3.5 million Americans have low vision.
- 180 million people worldwide have low vision.
- The number of people affected is expected to double in the coming years.

The NDSU Extension Service does not endorse commercial products or companies even though reference may be made to tradenames, trademarks or service names.

NDSU encourages you to use and share this content, but please do so under the conditions of our Creative Commons license. You may copy, distribute, transmit and adapt this work as long as you give full attribution, don't use the work for commercial purposes and share your resulting work similarly. For more information, visit www.ag.ndsu.edu/agcomm/creative-commons.

For more information on this and other topics, see www.ag.ndsu.edu

County commissions, North Dakota State University and U.S. Department of Agriculture cooperating. North Dakota State University does not discriminate on the basis of age, color, disability, gender expression/identity, genetic information, marital status, national origin, public assistance status, race, religion, sex, sexual orientation, or status as a U.S. veteran. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708. This publication will be made available in alternative formats for people with disabilities upon request, (701) 231-7881.

How to Adapt the Teaching Environment for Those With Low Vision

What is the best font to use?

- The best font to use is Times New Roman because it is easiest to focus on for people with low vision. Do not use other fonts such as **Berlin Sans FB** or *Lucida Calligraphy*.

What is the best size font?

- 16 to 18 point font is best because it is big enough for most people with low vision to read. Anything smaller is too little for them to read.

What is the best style font to use?

- **Bold** font is easiest to read; do not use *italicized* or standard.

How much should you enlarge standard font?

- Use a 150 to 165 percent enlargement setting on a photocopier. For documents on the computer, enlarge the font before printing.

What colors should you use?

- White letters on a black background are easiest for people with low vision to read because this combination cuts down on glare and gives high contrast. Black letters on a white background also are more difficult to read. Do not use colored letters on a colored background.

For more information, see the resources at the National Eye Institute at <https://nei.nih.gov>.