



What is cognitive impairment?

Cognitive impairment is when a person has trouble remembering, learning new things, concentrating, or making decisions that affect their everyday life. With mild impairment, people often notice changes in cognitive functions but are still able to perform everyday activities. Severe levels of impairment can lead to losing the ability to understand the meaning or importance of something and the ability to talk or write, resulting in the inability to live independently.⁸

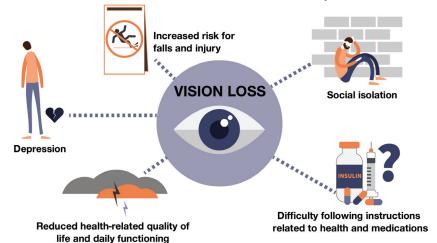
What is vision impairment?

Vision impairment is a measure of the type and severity of limitations in vision, including blindness. Vision impairment can range from mild impairments in visual acuity to total blindness (no light perception). Vision impairment must be managed over the lifespan to maintain the activities of daily living. With proper training, equipment, and accommodations, people with uncorrectable vision impairment can lead independent, productive, joyful lives. However, many individuals do not receive the resources they need to overcome vision-related disability.4

Seeing the Way to Better Health: *Brain Health and Vision Health*

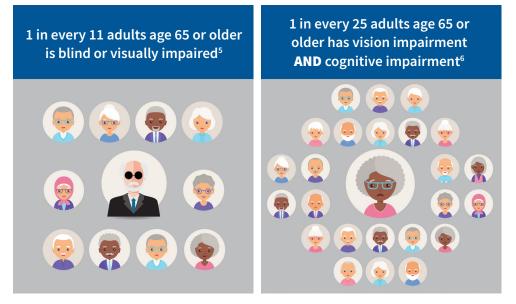
Vision impairment and cognitive impairment are issues that disproportionately affect older adults, individuals with chronic disease, minority populations, individuals living in poverty, the uninsured and underinsured, and those with less than a high school education.^{1,2} It is critical that programs addressing cognitive health consider the impact of co-occurring vision and cognitive impairment on functional abilities and quality of life.³ Because vision health represents a potentially modifiable risk factor for cognitive impairment and a potential contributor to the functional toll of cognitive impairment, attention to vision health is an important aspect of public health and cognitive health programs.

Vision loss can lead to adverse health consequences⁴:



Ensuring individuals with cognitive impairment are treated for correctable vision impairment with surgery and/or eye glasses is critical. Individuals with cognitive impairment and uncorrectable vision impairment may benefit from vision rehabilitation services to improve vision-related and cognitive function.⁷

Common issues in older adult health:



This publication was supported by Cooperative Agreement Number 5-NU38OT000286-02, funded by the Centers for Disease Control and Prevention (CDC). Its contents are solely the responsibility of the authors and do not necessarily represent official views of the CDC or the US Department of Health and Human Services.

INTEGRATING vision and eye health strategies into other programs and activities can help improve quality of life for people with cognitive impairment.

BRAIN HEALTH CAMPAIGNS:



Integrate messaging about vision and eye health into programs that promote brain health to

various populations, including those at high risk and minority populations. Prevention messaging can include knowing family history of eye health, eating healthy, maintaining healthy weight, wearing protective eyewear, not smoking, washing hands before removing contact lens, and practicing workplace eye safety.³

HEALTHY AGING PROGRAMS:



Integrate vision screening and early detection activities, improve access and utilization of eye care

services, and incorporate eye health awareness messages into programs that promote healthy and active aging.

CAREGIVER SUPPORT PROGRAMS:

Support caregivers by providing them with vision and eye health resources. These resources should

include measures to prevent vision loss by receiving recommended eye care services.³ They should also include contact information for low vision rehabilitation programs to assist those with uncorrectable vision impairment.

PROFESSIONAL DEVELOPLEMENT ACTIVITIES:



In training programs for professionals who promote cognitive health or work with patients with cognitive

impairment, include information about seeking care for the treatable forms of vision impairment such as cataracts and refractive errors. In addition, add content around managing other agerelated eye conditions like age-related macular degeneration, diabetesrelated retinopathy, and glaucoma.³

RESOURCES:

Building Public Health Capacity to Enhance Vision and Eye Health: A Toolkit for Public Health Agencies and Their Partners

This toolkit can help public health agencies and their partners assess the level of vision impairment in their communities, build effective partnerships, and implement effective and sustainable interventions to improve vision and eye health. www.cdc.gov/visionhealth/programs/ vision-eye-health-tool.html

Healthy Eyes Presentation Series

This presentation series can build awareness about eye and vision basics, common adult vision disorders, eye safety precautions and proactive behaviors for a lifetime of healthy vision. In addition, there are disease specific toolkits on the Prevent Blindness website. preventblindness.org/health-eyespresentation-series/

Healthy Brain Initiative: State and Local Public Health Partnerships to Address Dementia, The 2018-2023 Road Map

This road map outlines how state and local public health agencies and their partners can continue to promote cognitive health, address cognitive impairment for people living in the community, and help meet the needs of caregivers.

www.cdc.gov/aging/healthybrain/ roadmap.htm

Living Well with Low Vision

This online resource educates those with loss of vision on how to maintain their independence and quality of life. lowvision.preventblindness.org/

Resources for Health Educators

These toolkits offer disease- and audience-specific programs for health educators. www.nei.nih.gov/learn-about-eyehealth/resources-for-health-educators

Vision and Eye Health Surveillance System (VEHSS): A National Data System for Vision and Eye Health

Get the latest state and national data on vision and eye health. www.cdc.gov/visionhealth/vehss/ index.html

For more information: www.preventblindness.org

June 2020

REFERENCES

- 1. Saydah SH, Gerzoff RB, Saaddine JB, Zhang X, Cotch MF. Eye Care Among US Adults at High Risk for Vision Loss in the United States in 2002 and 2017. JAMA Ophthalmol. 2020;138(5):479-489. doi:10.1001/jamaophthalmol.2020.0273
- 2. Blazer DG, Yaffe K, Liverman CT, Committee on the Public Health Dimensions of Cognitive Aging; Board on Health Sciences Policy; Institute of Medicine, eds. Cognitive Aging: Progress in Understanding and Opportunities for Action. Washington (DC): National Academies Press (US); 2015.
- Saydah SH, Gerzoff RB, Taylor CA, Ehrlich JR, Saaddine JB. Vision Impairment and Subjective Cognitive Decline–Related Functional Limitations United States, 2015–2017. MMWR Morb Mortal Wkly Rep 2019;68:453–457. DOI: <u>http://dx.doi.org/10.15585/mmwr.mm6820a2</u> external icon
- 4. National Academies of Sciences, Engineering, and Medicine Making Eye Health a Population Health Imperative: Vision for Tomorrow. The National Academies Press: Washington, DC, USA, 2016 (pgs. 271, 231, 111, 1, 32, xviii).
- 5. Prevent Blindness (2012). Vision Problems in the US website. http://www.visionproblemsus.org/. Accessed March 20, 2020.
- Whitson HE, Cousins SW, Burchett BM, Hybels CF, Pieper CF and Cohen HJ. (2007). The Combined Effect of Visual Impairment and Cognitive Impairment on Disability in Older People. Journal of the American Geriatrics Society, 55: 885-891. doi:10.1111/j.1532-5415.2007.01093.
- 7. Whitson HE, Whitaker D, Potter G, et al. A Low-Vision Rehabilitation Program for Patients with Mild Cognitive Deficits. JAMA Ophthalmol. 2013;131(7):912–919. doi:10.1001/jamaophthalmol.2013.1700
- 8. Centers for Disease Control and Prevention. Cognitive impairment: A Call for Action, Now! website. https://www.cdc.gov/aging/healthybrain/index.htm. Accessed on April 20, 2020.