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That's often the reality for people with dementia, says Case Western Reserve University psychologist Grover "Cleve" Gilmore, dean of the Mandel School of Applied Social Sciences. Individuals lose their ability to distinguish between lights and darks in a low contrast environment as dementia worsens, he adds

Gilmore has spent 30 years reconstructing the visual perception world of those with cognitive problems and has found a correlation between seeing the world and maintaining the ability to do everyday things, such as eating, reading and participating in leisure activities. He has developed a visual perception deficit test that tracks how sensitive people are to visual contrasts.

Visual perception deficits can be compounded when those with early onset dementia develop cataracts. Cataracts can lead to blindness, but as they grow they can also dim the visual world for these individuals, making it harder for them to navigate around the living room furniture, pick up the fork at the dining room table or walk up and down the stairs.

Free eye exams are being offered at University Hospitals Case Medical Center and MetroHealth Medical Center for people over the age of 50 with a diagnosis of dementia, Alzheimer's disease or memory problems and who potentially have cataracts in each eye.

An estimated 10 percent of the population over the age of 65 has cataracts and some form of memory impairments.

These individuals might qualify as one of the 210 participants in a major $2.9 million National Institutes of Health-funded study that is examining how cataract surgery and restoring eye sight can improve doing normal everyday activities. Half the participants will have immediate cataract surgery, and the other half will have the surgery delayed for six months.

"If an individual has cataracts, we plan to see if they benefit from restoring their eyesight," said Gilmore, who is the lead investigator on the five-year study.

Collaborating with Gilmore are co-investigators Jonathan Lass, MD, the Charles I. Thomas Professor and chair of the department of ophthalmology and visual sciences at Case Western Reserve University School of Medicine and director of the Eye Institute at University Hospitals Case Medical Center, Alan Lerner, MD, Director of the Memory and Cognition Center of University Hospitals Case Medical Center and professor of neurology at Case Western Reserve University School of Medicine, and Thomas Steinemann, MD, professor of ophthalmology at the medical school and ophthalmologist in the ophthalmology division at MetroHealth Medical Center.

They will look at how seeing can increase memory.

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