

REDUCING THE PREVALENCE OF DEMENTIA



Recent studies on the cognitive benefits of eye care.

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DEMENTIA PREVENTION, INTERVENTION, AND CARE: 2024 REPORT OF THE LANCET STANDING COMMISSION

Livingston G, Huntley J, Liu KY, et al¹
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ABSTRACT SUMMARY

The 2024 update of the *Lancet* Commission on dementia summarized the research conducted since the group's 2020 report. This installment of CRST's "The Literature" column focuses on the vision-related findings presented by Livingston and colleagues. The *Lancet* Commission found strong evidence that untreated vision loss is a risk factor for dementia. For example, a US study involving 16,690 participants found that vision impairment was responsible for 1.8% of the dementia risk.² The *Lancet* Commission's 2024 report also included a meta-analysis of 14 prospective cohort studies involving more than 6 million adults over the age of 50 years who were cognitively intact at baseline.³ Those with untreated vision impairment were at 47% greater risk of developing dementia.

DISCUSSION

A question raised by the *Lancet* Commission's 2024 report is whether the observed association between an increased risk of dementia and vision loss can be attributed to the

STUDY IN BRIEF

- A 2024 update of the *Lancet* Commission on dementia added untreated vision loss and high low-density lipoprotein cholesterol to the group's earlier list of 12 potentially modifiable risk factors. According to the group, modifying these risk factors might prevent or delay nearly half of all dementia cases. As the global population ages, incorporating these insights into public health policies and individual health care plans could enhance outcomes for individuals at risk of developing dementia.

WHY IT MATTERS

The *Lancet* Commission's recommendations help guide the priorities of policymakers, governments, and organizations. The 2024 report's emphasis on untreated vision loss may attract additional resources to ophthalmology.

vision loss, the illness underlying it, or shared neuropathologic processes in the brain and retina. In a UK Biobank study of 300,823 people included in the report, those with cataracts were at increased risk of dementia, and no difference in dementia risk was found between participants who underwent cataract surgery and healthy controls.⁴ On the other hand, a Korean longitudinal health insurance database study of more than 6 million people included in the report found that the risk of dementia increased with the severity of vision loss, which suggests that either vision loss itself was a causative factor or there was a dose-response effect.⁵

Whatever the causes of dementia, its prevalence increases as global life expectancy rises. The *Lancet* Commission emphasized that the modification of various lifestyle factors such as physical inactivity, smoking, excessive alcohol consumption, air pollution, traumatic brain injury, social isolation, depression, hypertension, obesity, diabetes, hearing loss, and low education level could mitigate people's risk of developing dementia—potentially preventing or delaying nearly half of all cases. The group's 2024 report added untreated vision loss and high low-density lipoprotein cholesterol to this list of risk factors.

CATARACT SURGERY AND COGNITIVE BENEFITS IN THE OLDER PERSON: A SYSTEMATIC REVIEW AND META-ANALYSIS

Yeo BSY, Ong RYX, Ganasekar P, Tan BKJ, Seow DCC, Tsai ASH⁶

Industry support for this study: None

ABSTRACT SUMMARY

This systematic review and meta-analysis sought to clarify the association of cataract surgery with cognitive impairment and dementia. The analysis included 24 published studies with a total of 558,276 participants that assessed the effect of cataract surgery on cognitive outcomes.

Cataract surgery was associated with a 25% reduction in the risk of long-term cognitive decline compared to participants with untreated

cataracts. The cognitive benefit remained consistent across various analyses. Patients who underwent cataract surgery and healthy controls without cataracts had a similar risk of long-term cognitive decline. Additionally, cataract surgery was linked to a 4% improvement in short-term cognitive test scores among individuals with normal cognition. No significant association was found among participants who had preexisting cognitive impairment.

DISCUSSION

Vision impairment has a well-established association with cognitive decline, but the cognitive benefits of cataract surgery are unclear. This meta-analysis suggests that cataract-related visual impairment may be a modifiable risk factor for cognitive decline. The

procedure's cognitive benefits should be investigated further. ■

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STUDY IN BRIEF

- ▶ A systematic review and meta-analysis found that cataract surgery was associated with a 25% reduction in the risk of long-term cognitive decline compared to participants with untreated cataracts.

WHY IT MATTERS

This study highlights the potential role of cataract surgery in reducing the risk of cognitive decline and dementia.