

Causes of Visual Impairment

Visual impairment can happen to children or adults. In the United States, millions of persons have partial or complete loss of vision. It is important to have regular eye examinations to detect early stages of vision loss. The October 15, 2003, issue of JAMA includes an article about the causes of visual impairment.

CONDITIONS THAT MAY CAUSE VISUAL IMPAIRMENT

SYSTEMIC CONDITIONS

- Diabetes
- **Hypertension** (high blood pressure)
- **Cerebrovascular** (brain blood vessel) disease or stroke
- **Atherosclerotic disease** (cholesterol deposits in blood vessels, including those of the eye)
- Human immunodeficiency virus (HIV)—usually due to infection with **cytomegalovirus**, a virus that affects the eye
- Vitamin A deficiency
- Infections involving the eyes

Some eye infections, including those caused by parasites, are more common in developing countries. Infections in a pregnant woman can affect the fetus. This type of vision loss, present from birth, is called **congenital blindness**.

SPECIFIC EYE CONDITIONS

- Macular degeneration—deterioration of the central part of the **retina**
- Cataracts—clouding of the **lens** of the eye
- Glaucoma—damage to the nerve connecting the eye to the brain caused by increased pressure inside the eye
- Eye injuries
- Tumors involving the eye or surrounding structures in the head and neck

PREVENTION

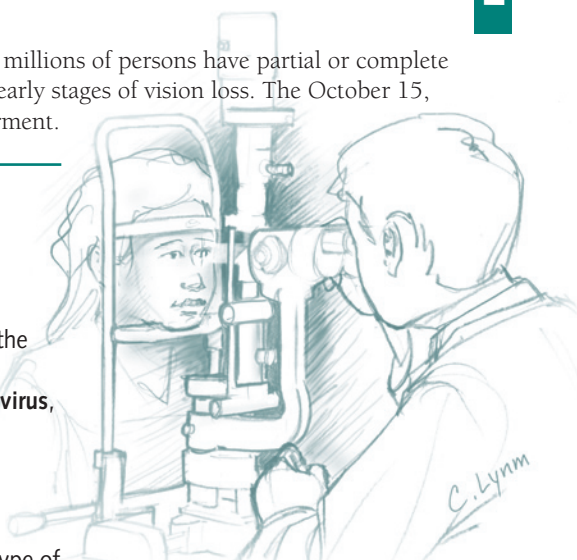
- Schedule regular eye examinations to detect inadequate vision correction, find cataracts, test for glaucoma, and evaluate general eye health.
- Stop smoking. Smoking has been linked to development of cataracts and macular degeneration in addition to all the other health problems smoking causes.
- Treat chronic diseases, especially diabetes. Good control of blood sugar levels will help reduce your chances of developing **diabetic retinopathy**, the eye problem caused by diabetes. Regular screening eye examinations for persons with diabetes may help to detect diabetic retinopathy sooner. This may limit eye damage by making earlier treatment possible.
- Protect your eyes from sunlight and other ultraviolet (UV) light exposure (such as tanning beds). Wearing UV-protective sunglasses and a wide-brimmed hat helps to limit UV exposure to the eyes.
- Wear protective eyewear when working with tools or during recreational activities. Eye injuries are a common cause of vision loss for individuals in the United States.

Janet M. Torpy, MD, Writer

Cassio Lynn, MA, Illustrator

Richard M. Glass, MD, Editor

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- American Academy of Ophthalmology
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www.aao.org
- Lighthouse International
800/829-0500
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To find this and previous JAMA Patient Pages, go to the Patient Page link on JAMA's Web site at www.jama.com. Many are available in English and Spanish. A Patient Page on cataracts was published in the July 9, 2003, issue; one on age-related macular degeneration was published in the November 13, 2002, issue; and one on eye health was published in the February 16, 2000, issue.

Sources: National Eye Institute, American Academy of Ophthalmology, Lighthouse International

