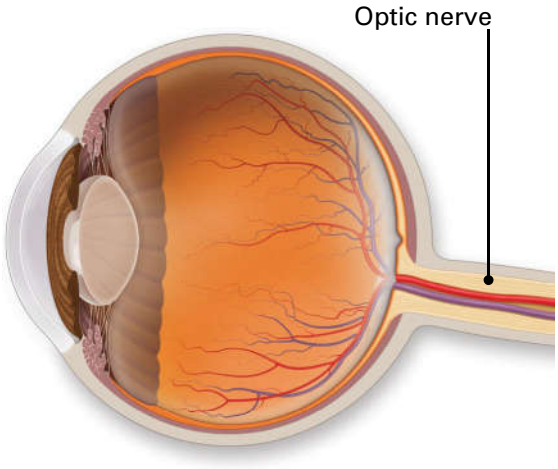
Ischemic Optic Neuropathy (ION)

What is ischemic optic neuropathy?

Ischemic optic neuropathy (ION) is when blood does not flow properly to your eye's optic nerve, eventually causing lasting damage to this nerve. With ION, you suddenly lose your vision in one or both of your eyes.

The optic nerve carries signals from your eyes to the brain. Your brain then turns these signals into the images you see. When blood flow to the optic nerve is reduced or blocked, the nerve does not get enough oxygen or nutrition. The optic nerve stops working properly, and eventually dies.

ION can affect your central (detail) vision or side (peripheral) vision—or both. Because a damaged optic nerve cannot be fixed, any vision loss from ION is usually permanent. Usually, people with severe ION still have some peripheral vision.



Decreased blood flow to the eye's optic nerve can cause loss of vision.

What are ION symptoms?

If blood flow to your optic nerve is reduced, your vision will darken for a few seconds or minutes then return to normal. This is called a transient ischemic attack (TIA). This kind of attack can happen before ION begins. If you have TIA symptoms, call your ophthalmologist or primary care doctor right away. Finding and treating the problem as soon as possible can help prevent further vision loss from ION.

Who is at risk for getting ION?

While anyone can get ION, you are more likely to develop it if you:

- are over 50 years old
- have high blood pressure
- have diabetes
- smoke cigarettes
- have clogged arteries
- have glaucoma
- have migraine headaches
- have swelling of arteries in the head (called temporal arteritis)

How is ION diagnosed?

Your ophthalmologist will do an eye exam to look for warning signs of ION. He or she will dilate (widen) your pupils with eye drops and then check for swelling of the optic nerve and blood vessels in the back of your eye.

Your ophthalmologist may also test your side (peripheral) vision and measure the fluid pressure within your eye.

How is ION treated?

If your ION is caused by swelling of arteries in your head (temporal arteritis), your ophthalmologist may have you take steroid (prednisone) pills. This medicine may prevent ION from developing in your other eye.

Your doctor may want to treat any other health problems you have that put you at risk for ION. He or she may prescribe medicine for high blood pressure, diabetes, clogged arteries, migraine headaches, or other health problems.

There is no treatment to improve vision loss from ION. However, your ophthalmologist may suggest useful materials and ways to help you see with low vision.

Summary

Ischemic optic neuropathy (ION) is when blood does not flow properly to your eye's optic nerve. When the optic nerve does not get enough oxygen or nutrition, the nerve is damaged and you lose vision, usually permanently.

If blood flow to your optic nerve is reduced, your vision will darken for a few seconds or minutes then return to normal. This is called a transient ischemic attack (TIA). This kind of attack can happen before ION begins. If you have TIA symptoms, call your ophthalmologist or primary care doctor right away. Finding and treating the problem as soon as possible can help prevent further vision loss from ION.

ION is usually treated with medication. Low vision tools and tips are important ways to make the most of your remaining vision.

If you have any questions about your eyes or your vision, speak with your ophthalmologist. He or she is committed to protecting your sight.

Get more information about ischemic optic neuropathy from EyeSmart—provided by the American Academy of Ophthalmology—at **aao.org/ion-link**.

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