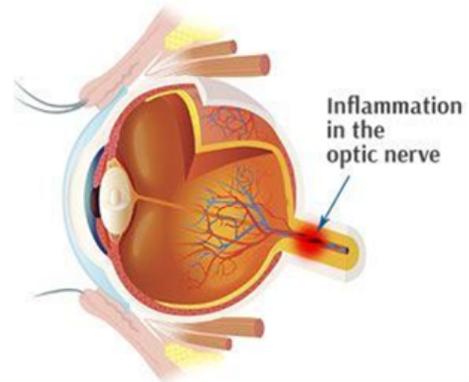




# Optic Neuritis

## What is optic neuritis?

**Optic neuritis is inflammation of the optic nerve.** In optic neuritis, the covering around the optic nerve (**myelin**) is damaged by inflammation (**demyelination**), which typically results in blurred or dark vision.



[http://www.northshoreeye.com.au/wp-content/themes/ypo-theme/images/optic\\_neuritis.jpg](http://www.northshoreeye.com.au/wp-content/themes/ypo-theme/images/optic_neuritis.jpg)

## What causes optic neuritis?

Your immune system normally protects your body from infections. However, it can become confused and attack your own body (**autoimmune reaction**). Most cases of optic neuritis are caused by an autoimmune reaction to the optic nerve, but optic neuritis can be directly caused by certain infections.

Optic neuritis can be caused by systemic conditions or infections, or may not have any known cause (**idiopathic**). **Many diseases can cause optic neuritis, including multiple sclerosis (MS).** Multiple sclerosis is an autoimmune disease that specifically attacks your brain and spinal cord. **Optic neuritis is frequently a manifestation of MS, and sometimes the very first sign of the disease.** Optic neuritis can also be caused by other neurological inflammatory diseases such as **neuromyelitis optica (NMO)** or **myelin oligodendrocyte glycoprotein (MOG)-associated disease.**

## How does optic neuritis affect me?

### Vision Loss

**In optic neuritis, the eye itself is not affected, but the optic nerve behind the eye is inflamed.** This may cause blurred vision, darkened vision, decreased color vision, or decreased peripheral vision. **The most common symptom of optic neuritis is decreased vision,** which happens suddenly or quickly over the course of 1-3 days. Many people describe the blurring and

darkening of their vision as “dimming” or like “the brightness is turned down.” **Optic neuritis does not affect your glasses prescription.**



[http://www.sonjabiggs.net/blog/assets/0\\_0\\_0\\_0\\_568\\_213\\_csupload\\_59895147.jpg?u=635110737829633998](http://www.sonjabiggs.net/blog/assets/0_0_0_0_568_213_csupload_59895147.jpg?u=635110737829633998)

## Eye Pain

**Most people with optic neuritis will have eye pain or discomfort when looking in different directions.** When the optic nerve is inflamed and the eye moves, there may be pulling on the optic nerve that can cause irritation. **This pain typically goes away after several days.**

## Other Vision Problems

- **Decreased color vision** is also common. Colors are often described as “washed out.”
- **Difficulty seeing contrast is also common.**
- Some people will see flashes of light, sparkles, or shifting squares. Some people will have episodes of blurred vision lasting up to an hour triggered by exercise or hot temperatures, which may continue after the episode of optic neuritis has resolved because of residual damage to the optic nerve.

## Why do I need to see a neuro-ophthalmologist?

Neuro-ophthalmologists specialize in diseases of the optic nerve. While a neuro-ophthalmologist may do the same tests as your regular eye doctor, **a neuro-ophthalmologist is experienced in sorting out the differences between optic neuritis and other optic nerve diseases.**

- Your doctor may test your **visual field** and may scan your optic nerves using specialized machines in the office.
- Your doctor will order an **MRI of the brain with special views of the orbits** (where the majority of the optic nerve runs), which can confirm optic neuritis when the nerve looks bright after intravenous contrast is injected.
- Your doctor may order other tests, such as blood tests or a chest X-ray, to look for different causes of optic neuritis.

If your symptoms and eye exam are typical for optic neuritis, your doctor may choose to order very few tests at first. If your symptoms are unusual, your doctor may order other tests.

### Why does my doctor say I may have multiple sclerosis (MS)?

**There has been a lot of research that links the most common form of optic neuritis with multiple sclerosis.** Most people with multiple sclerosis will have an episode of optic neuritis in their lifetime. While not everyone who gets optic neuritis will develop multiple sclerosis, **people who have optic neuritis have a greater risk for having MS in the future, compared to those who have never had an episode.** Because early detection and treatment may keep you from having more severe problems, it is important to follow your doctor's advice.

**An MRI of the brain is recommended in optic neuritis because it can help determine the risk for developing MS in the future, and determine if you need additional treatment.**

- Your doctor may recommend that you see a neurologist to be screened for multiple sclerosis, even if you do not have any other symptoms. Studies have shown that 75% (3 out of 4) people with optic neuritis and additional brain abnormalities on MRI will develop MS within 15 years.
- In people who have a normal MRI at the time of their optic neuritis episode, 25% (1 out of 4) people will develop MS within 15 years.

### How is optic neuritis treated?

**In typical cases of optic neuritis, no treatment is necessary.** Research has shown that there is **no difference in final vision, or the likelihood of developing MS in the future, between people with optic neuritis who were treated and those who were not treated.** Treatment can speed up

recovery; however, the treatment for optic neuritis has many side effects and is therefore not recommended for everyone. Treatment may be recommended in:

- **Abnormal MRI.** If your MRI is abnormal, your doctor may recommend treatment.
- **Atypical cases.** If your symptoms are unusual, or if your vision is severely affected, your doctor may recommend treatment, regardless of the MRI results.

Typically, **treatment consists of intravenous (IV) steroids** for 3 days, followed by pills taken by mouth (**oral steroids**) for an additional 10 to 15 days. There is evidence that **only using oral steroids (prednisone) in doses of 60-80 mg per day INCREASES the risk of recurrence of optic neuritis.** Alternatively, your doctor may recommend oral steroids at high doses similar to IV steroids for the first 3 to 5 days.

Depending on your overall health, steroid treatment may not be safe for you. Steroids have many side effects including fluid retention, increased blood pressure, increased blood sugar, weight gain, increased appetite, mood and behavior problems, stomach irritation, and glaucoma. Over the long term, steroids can decrease your ability to fight off infection, worsen diabetes, thin your bones, skin, and hair, increase bruising, form cataracts, and increase fat deposits.

## What is my prognosis?

- **Most people with typical cases of optic neuritis will get better with or without treatment.** Vision typically begins to recover within a few weeks.
- **92% of people with typical cases of optic neuritis will recover most of their vision.**
- However, **most people will continue to report some mild decreased quality of their vision,** even though they may still read the small letters on the 20/20 line in the doctor's office. These changes are typically related to reduced color vision, distorted vision, or difficulty with contrast (distinguishing shades of light and dark).
- **Up to 35% of people with optic neuritis will have further episodes in the same eye or other eye.** As of now, there are no medications, supplements, or other treatments proven to reduce the risk of recurrence unless you have been diagnosed with multiple sclerosis or another neurological disease requiring immune suppression.
- **The prognosis may be worse depending on the cause of the optic neuritis.** Infections such as syphilis, tuberculosis, Lyme disease, and autoimmune diseases such as neuromyelitis optica (NMO), myelin oligodendrocyte glycoprotein (MOG)-antibody

disease, sarcoidosis, and lupus can also cause optic neuritis. In these cases, the vision may not improve as much or at all. Many of these patients require specific treatments directed at the underlying cause (if an infection) or more aggressive treatment with steroids and other drugs that treat autoimmune inflammation.

## How often do I need to have checkups for optic neuritis?

Your doctor will check your eyes and vision when you are first having symptoms (**acute phase**). After determining if you need treatment, other testing, or a referral to a neurologist, your doctor may recheck your eyes and vision after a few weeks to months. Once your vision has stabilized and as long as you do not have any new episodes, you can have routine eye exams.

## Additional Reading/Resources

### Websites

- **Optic Neuritis, by the National Library of Medicine on MedlinePlus**  
(<https://www.nlm.nih.gov/medlineplus/ency/article/000741.htm>)
- **Optic Neuritis, by the Mayo Clinic**  
(<http://www.mayoclinic.org/diseases-conditions/optic-neuritis/basics/definition/con-20029723>)
- **Optic Neuritis, by the American Academy of Ophthalmology's EyeSmart Project**  
(<http://www.aao.org/eye-health/diseases/what-is-optic-neuritis>)

### Support Groups

- **National Multiple Sclerosis Society:** <http://www.nationalmssociety.org/>
- **Multiple Sclerosis Foundation:** <http://www.msfocus.org/>
- **Optic Neuritis Facebook Support Group:**  
<https://www.facebook.com/Optic-Neuritis-Support-Group-102550039819362/>

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