

# Optic Neuritis

## Definition:

Optic neuritis is inflammation of the optic nerve. It may cause sudden, reduced vision in the affected eye. Sometime inflammation involves optic nerve behind lamina cribrosa (not visible through routine eye examination), then it is called retro-bulbar neuritis.

## Causes, incidence, and risk factors:

The exact cause of optic neuritis is unknown.

The optic nerve carries visual informations from your eye to the brain. Sudden swelling of this nerve can damage the insulation (myelin sheath) surrounding each nerve fiber. This can result in permanent visual loss.

Conditions that have been linked with optic neuritis include:

- Autoimmune diseases, including lupus, sarcoidosis, and Behcet's disease
- Cryptococcosis, a fungal infection
- Bacterial infections, including tuberculosis, syphilis, Lyme disease, and meningitis
- Viral infections, including viral encephalitis, measles, rubella, chickenpox, herpes zoster, mumps, and mononucleosis
- Respiratory infections, including Mycoplasma pneumonia and common upper respiratory tract infections
- Multiple sclerosis

## Symptoms:

- Loss of vision in one eye over an hour or a few hours
- Changes in the way the pupil reacts to bright light
- Loss of color vision
- Pain when you move the eye

## Signs and tests:

A complete medical examination can help rule out related diseases. Tests may include:

- Visual acuity testing
- Color vision testing
- MRI of the brain including images of the optic nerve
- Visual field testing
- Examination of the optic disc using indirect ophthalmoscopy

## Treatment:

Vision often returns to normal within 2 - 3 weeks with no treatment.

Corticosteroids given through a vein (IV) or taken by mouth may speed up recovery. Higher doses should be used cautiously, as they can have serious side effects.

Further tests may be needed to determine the cause of the neuritis. The condition causing the problem can then be treated.

**Expectations (prognosis):**

People who have optic neuritis without a disease such as multiple sclerosis have a good chance of recovery.

Optic neuritis caused by multiple sclerosis or other autoimmune diseases such as systemic lupus erythematosus has a poor visual prognosis.

**Complications:**

- Body-wide side effects from corticosteroids
- Vision loss

About 1 in 5 patients with a first episode of optic neuritis will develop myelin sheath inflammation elsewhere in the body, or will develop multiple sclerosis.