

# Optic Nerve Pit

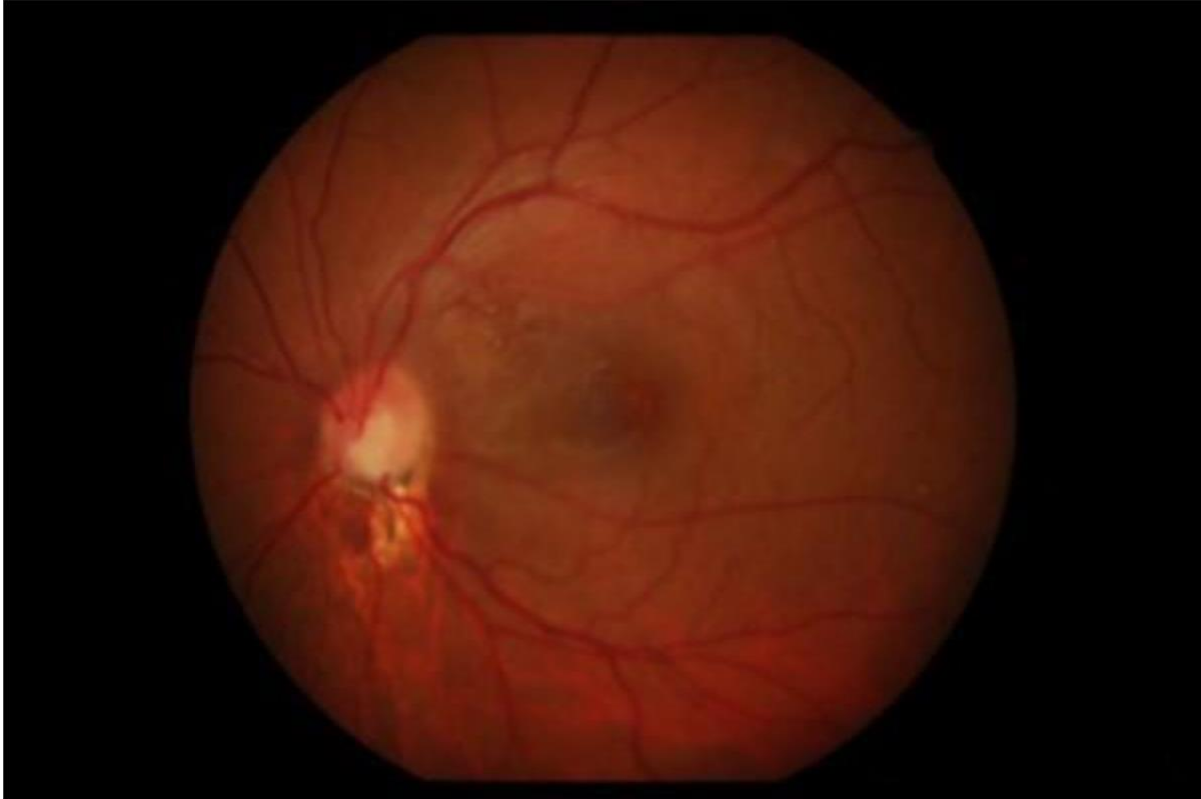
## WHAT IS AN OPTIC NERVE PIT?

An optic nerve pit is a small pocket or hole near the optic nerve (the nerve that connects the eye to the brain). It happens when the eye does not develop properly before birth. About 1 in 11,000 people have an optic nerve pit. Usually, it affects one eye, but in 15% of children, it can be seen in both eyes.

See Figure 1, which shows a normal optic nerve with an orange-pink circle and a yellow-white center. See Figure 2, which shows a nerve with a pit. There is an extra area of lighter color at the bottom of the orange-pink circle; this is the pit.



**Fig. 1:** Normal optic nerve.



**Fig. 2:** Optic nerve pit. See how it is lighter in color at the bottom. This is where the hole or pocket forms in the nerve.

### HOW IS THE OPTIC PIT DIAGNOSED?

An optic nerve pit is most often diagnosed by an ophthalmologist during a routine eye exam.

If the optic nerve pit affects the vision, extra testing may be used like fluorescein angiography (a special test that uses a dye and a camera to look at the blood flow in the back of the eye) or optical coherence tomography (OCT, a special test that looks at the thickness of the back of the eye).

## WHAT IS THE EFFECT OF THE OPTIC PIT ON VISION?

The pit itself usually does not affect vision, and most people do not have any symptoms for a long time, if ever. However, about half of patients with symptoms start having vision changes in their 20s or 30s.

Vision problems occur when fluid builds up under the center part of the retina (the inner lining of the back of the eye). If fluid builds up under the retina, it can cause blurry vision, distorted/stretched/wavy vision, and objects to appear smaller than they are.

## WHAT IS THE TREATMENT OF THE OPTIC PIT?

Unfortunately, there is no treatment for the optic pit itself or a way to prevent fluid build-up. However, monitoring and regular follow-up with your ophthalmologist are necessary to look for fluid build-up and blurry vision because that may be treatable.

In some cases, the fluid under the retina goes away on its own with rest and monitoring. In other cases, eye surgery may be needed to remove the fluid. However, even with the right treatment, vision may not fully return to normal.

If you have more questions about an optic nerve pit, speak with your ophthalmologist.

For more scientific information on optic pits, see [https://eyewiki.org/Optic\\_Pits](https://eyewiki.org/Optic_Pits).

**Updated 06/2023**