

## What Is LASIK Eye Surgery?

**LASIK (laser-assisted in situ keratomileusis) is the most common type of refractive eye surgery to correct vision problems.**

### Vision Problems That Can Be Treated by LASIK Eye Surgery

LASIK eye surgery can treat a range of vision problems, including **myopia** (nearsightedness), **hyperopia** (farsightedness), and **astigmatism** (irregularly shaped surface of the eye). Normal age-related loss of close-up vision (**presbyopia**) cannot be reversed with LASIK, although a modified treatment called monovision can be performed so that one eye is corrected for distance and the other for near.

### How Does LASIK Eye Surgery Work?

In LASIK, an ophthalmologist uses a laser to reshape the **cornea** (clear front part of the eye). A small flap is made in the upper cornea with either a small blade or a laser. The flap is lifted up and the laser is then used to reshape the deeper cornea by removing precise amounts of tissue. The goal of the surgery varies depending on the type of vision problem. If a patient is nearsighted, the goal is to flatten the cornea by removing tissue from the central cornea. If a patient is farsighted, the goal is to make the cornea steeper by removing tissue from the peripheral cornea. LASIK can also correct astigmatism by reshaping the cornea into a more symmetrical, spherical shape. It is a quick procedure (often less than 15 minutes) that requires only numbing drops, with no need for general anesthesia, stitches, or bandaging.

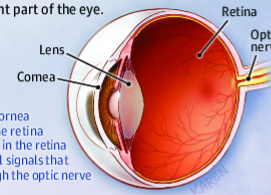
### Risks of LASIK Eye Surgery

Complications following LASIK are uncommon. Eye infections and inflammation are rare but serious complications that can be treated with medications. Some patients experience dryness, glare, light sensitivity, and halos around lights. These are usually temporary and tend to disappear over time but may be permanent for some people.

Not everyone has 20/20 vision after LASIK. More than 95% of people who have LASIK eye surgery are satisfied with the outcome of the surgery. Some patients may require a touch-up treatment, called an enhancement, to make additional improvements. Some find that they may still need glasses for some activities, such as reading. Uncommonly, some people do not find that their vision is improved following LASIK.

**LASIK eye surgery** is a procedure in which a laser is used to reshape the cornea of the eye to correct certain vision problems.

The **cornea** is the clear front part of the eye.

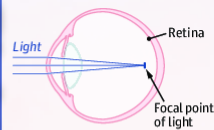


Light bends through the cornea and lens and focuses on the retina in the back of the eye. Cells in the retina convert light into electrical signals that are sent to the brain through the optic nerve and perceived as images.

### Changes in the shape of the cornea affect vision

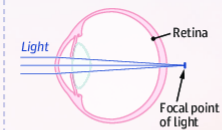
#### Myopia (nearsightedness)

The eye is too long and light focuses in front of the retina, and distant objects are blurry.



#### Hyperopia (farsightedness)

The eye is too short and light focuses behind the retina, and near objects are blurry.

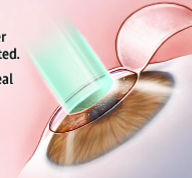


#### Astigmatism

The eye is irregularly shaped and light focuses incorrectly; all objects are blurry.

### During LASIK eye surgery

- 1 A thin corneal flap is made in the upper layers of the cornea, and the flap is lifted.
- 2 A laser reshapes the underlying corneal tissue so that light can better focus on the retina.
- 3 The corneal flap is then placed back in its original position.



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**Authors:** Malcolm M. Kates, BS, BA; Sonal Tuli, MD  
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