



What you should know about LASIK and Femto-LASIK

Understanding Laser Vision Correction







The strong desire to see clearly

Laser Vision Correction with a proven procedure

Sharp vision is something everyone desires. Not all of us, however, have good eyesight. Eye conditions such as nearsightedness, farsightedness and astigmatism, so-called refractive errors, are very common.

Over half the world's population relies on eyeglasses or contact lenses to see well. For many people, they are a suitable solution. Others consider them an inconvenience that interferes with their daily lives. They want to enjoy good vision without needing to wear glasses or contacts.

Today, most refractive errors can be effectively treated with Laser Vision Correction. LASIK, and its advanced form Femto-LASIK are very widely performed procedures.

Whether Laser Vision Correction is right for you, depends on various factors. Consult your eye doctor to determine the best option for your vision needs.

How the eye works

Understanding vision

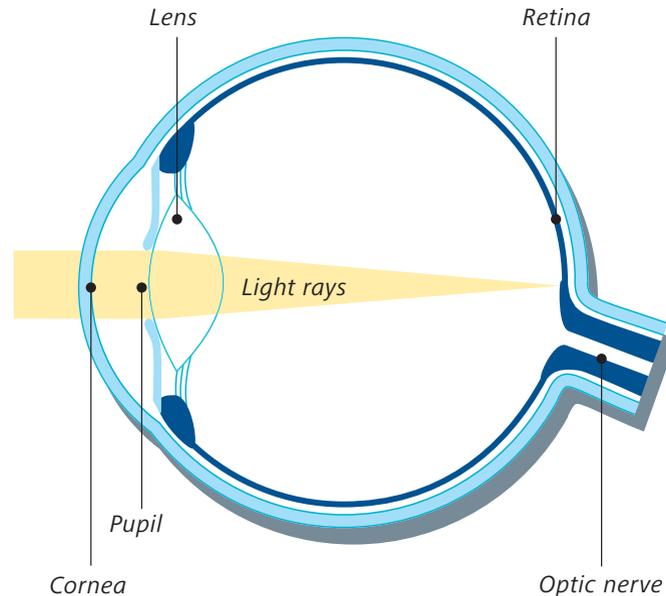
The human eye is truly remarkable in its design. Each eye is unique. Each eye condition is also unique. Vision quality is largely determined by the size and shape of our eyes.

With a healthy eye, light rays entering the eye are focused directly on the retina to form a sharp image, which is then sent to the brain via the optic nerve, resulting in a visual image.

When the eye's dimensions are not well-aligned, the light rays are not correctly focused. This results in a refractive error such as nearsightedness, farsightedness and astigmatism (an irregular curvature of the cornea). Refractive errors are very widespread and affect people of all ages.

Normal vision

With normal vision, the eye's dimensions are well-aligned. Light rays are focused directly on the retina to create a clear image.



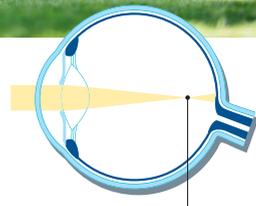
Common vision disorders

Refractive errors

Refractive errors occur when the curvature of the cornea, the main determining factor of refractive power, is not aligned with the length of the eye. As a result, the light rays are prevented from focusing directly on the retina.

Nearsightedness (myopia)

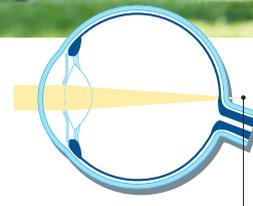
When the eyeball is too long, the light rays are focused in front of the retina. Distant objects appear blurry, those up close are clear.



Light rays are focused in front of the retina

Farsightedness (hyperopia)

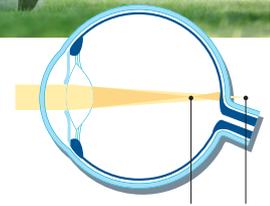
When the eyeball is too short, the light rays are focused behind the retina. Nearby objects appear blurry, distant ones are clear.



Light rays are focused behind the retina

Astigmatism

The cornea's irregular shape causes light rays to focus on more than one point. Overall vision appears blurry or distorted.

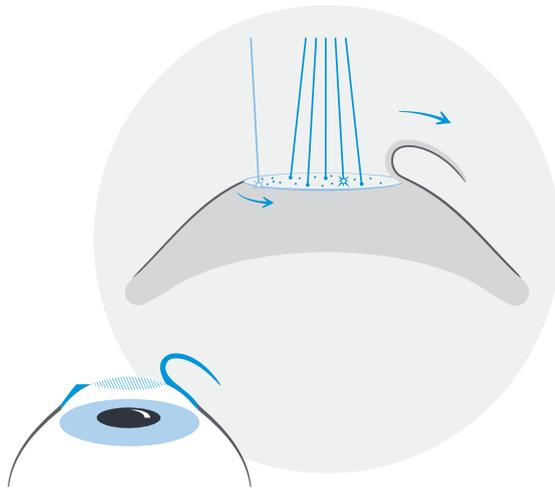


Light rays are focused in front of and behind the retina

A widely practiced surgery

Characteristics of LASIK and Femto-LASIK

Since its introduction in the early 1990s, laser-assisted in-situ keratomileusis, or LASIK for short, has become the most widely performed laser treatment method for correcting refractive errors.



At a glance

- Generally quick visual recovery
- Most frequently performed procedure
- Treatment standard for more than 20 years
- Widely available and performed by many surgeons
- Femto-LASIK: the entire procedure is done with lasers only

With LASIK, a flap is created and folded back.



Comparing the two proven procedures

Treatment steps of LASIK and Femto-LASIK

With traditional LASIK, a controlled blade (microkeratome) is used to create the flap (a kind of hinged piece of corneal tissue). With advanced bladeless Femto-LASIK, a highly precise flap is quickly created with a femtosecond laser.

Prior to treatment

Anesthetic eye drops are applied to the eye. An eyelid holder prevents the eye from blinking during the procedure.



Scan the QR code to see how the procedure is performed.

www.zeiss.com/LASIK-treatment

STEP 1

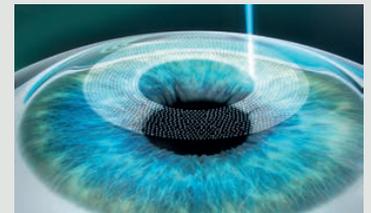
Preparing the treatment

A microkeratome is positioned in preparation of the flap cut.

LASIK



Femto-LASIK



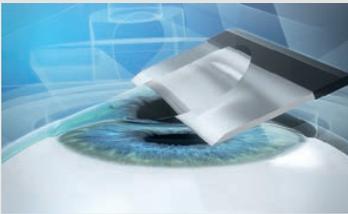
Creating the flap

A flap is created with a highly precise femtosecond laser.

STEP 2

Creating the flap

The microkeratome creates a flap, a hinged corneal piece of tissue.



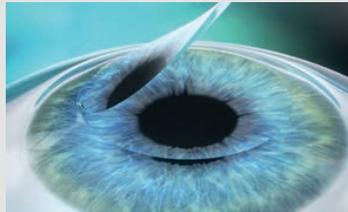
Relocating the patient

The patient is conveniently moved from the femtosecond laser to the excimer laser.

STEP 3

Folding back the flap

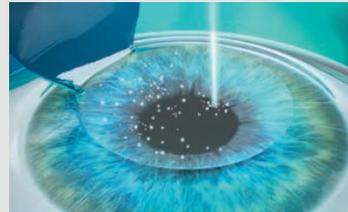
The flap is gently folded back, exposing the inner corneal tissue to be treated.



STEP 4

Correcting the error

An excimer laser reshapes the corneal tissue, correcting the refractive error.



STEP 5

Repositioning the flap

The flap is returned to its original position, protecting the eye like a natural bandage.



Learn more about what to expect

Answers to frequently asked questions

If you are considering LASIK or Femto-LASIK surgery, you probably have many questions. Some of the most frequent ones are addressed here. This information is not intended to replace consultation with your eye doctor.

Is LASIK or Femto-LASIK right for me?

Eligibility for Laser Vision Correction depends on many factors. Only your eye doctor can determine whether LASIK, Femto-LASIK or possibly another treatment option is best suited for you.

What advantages does Femto-LASIK offer?

The fast and highly precise femtosecond laser enables the surgeon to quickly and predictably create a hinged corneal flap without a blade. The patient is then comfortably relocated to the excimer laser to complete the treatment.

Is it safe?

Complications after LASIK or Femto-LASIK surgery are rare, but cannot be completely ruled out. As with all medical procedures, there is always a risk of possible side effects. Your eye doctor will discuss these with you.

How do I prepare?

If you wear contact lenses, most surgeons recommend switching to glasses a few weeks before surgery. You are advised not to apply makeup, lotions or perfume the day you have surgery. Also, it is suggested that you arrange to have someone bring you home afterward.



How long does the procedure take?

The treatment procedure itself only takes about 15 minutes for both eyes.

What happens after surgery?

A protective bandage or eye shield is placed over the eye to avoid rubbing it. Eye drops and possibly other medication may be prescribed to prevent infection and aid the healing process. A post-op examination the next day is customary, as are further examinations for the following weeks or months.

When can I return to my normal activities?

You will be able to resume most of your normal activities and return to work within the first week.

How long is the recovery time?

Complete visual recovery usually takes two to three weeks.

What does it cost?

The cost of LASIK and Femto-LASIK surgery varies from country to country. Several other factors can influence the cost. Most insurance companies do not cover the procedure.

This brochure is only for basic information. It is not to be considered medical advice or a substitute for obtaining your own medical consultation, during which you will be informed also about possible risks, side effects and restrictions of refractive surgery.



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