

LASER EYE SURGERY: BENEFITS AND RISKS

For many people, laser eye surgery can correct their vision so they no longer need glasses or contact lenses. Laser eye surgery reshapes the cornea, the clear front part of the eye. This changes its focusing power.

There are different types of laser eye surgery. LASIK - laser-assisted in situ keratomileusis - is one of the most common. Many patients who have LASIK end up with 20/20 vision. But, like all medical procedures, it has both risks and benefits. Only your eye doctor can tell if you are a good candidate for laser eye surgery.

Why is it so popular? LASIK has advantages over other vision correction procedures, including a relative lack of pain afterward and the fact that good vision usually is achieved by the very next day.

An instrument called a microkeratome is used in LASIK eye surgery to create a thin, circular flap in the cornea. Another, newer way of making the flap is with a laser.

The surgeon folds the hinged flap back out of the way, then removes some corneal tissue underneath using an excimer laser. The excimer laser uses a cool ultraviolet light beam to precisely remove ("ablate") very tiny bits of tissue from the cornea to reshape it.

When the cornea is reshaped in the right way, it works better to focus light into the eye and onto the retina, providing clearer vision than before. The flap is then laid back in place, covering the area where the corneal tissue was removed.

Both nearsighted and farsighted people can benefit from the LASIK procedure. With nearsighted people, the goal is to flatten the too-steep cornea; with farsighted people, a steeper cornea is desired. Excimer lasers also can correct astigmatism by smoothing an irregular cornea into a more normal shape.

If you are considering LASIK eye surgery, your first step is to choose a LASIK surgeon. To decide whether you're a good candidate for LASIK, your eye doctor will perform an eye exam to determine if your eyes are healthy enough for the procedure, what kind of vision correction you need and how much laser ablation is required.

Your doctor also will look for signs of dry eye disease, which must be treated and cleared up before LASIK can be performed. Even if your eyes have a normal tear film, your eye surgeon as a precaution may recommend treatment to reduce your risk of developing dry eyes after LASIK.

Also, a corneal topographer usually is used; this device measures the curvature of your eye and creates a kind of "map" of your cornea. With new wavefront technology associated with custom LASIK, you also are likely to undergo a wavefront analysis that sends light waves through the eye to provide an even more precise map of aberrations affecting your vision.

Finally, the doctor will ask you about any health problems you have or medications you take. Some health conditions will disqualify you altogether for LASIK, but others may just postpone the procedure until a later date.

While many people are good candidates for laser eye surgery, these procedures aren't for everyone.

Complications occur in less than five per cent of cases, according to the Royal College of Ophthalmologists. Some people have a problem with dry eyes in the months after surgery and artificial tear supplements might be needed in the long term.

Many patients have experienced glare or halo effects when night driving, particularly just after treatment. This is more likely the higher the correction that has been made, but is rarely severe. In rare cases, excessive thinning of the eye wall can cause the shape of the eye to be unstable after treatment. Severe loss of vision is very unusual, but some patients could require corneal surgery or hard contact lenses to restore vision.

Literature:

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