

# The LASIK QuickStart Guide

Five Things Your Eye Surgeon Wants You to Know Before Going
Under the Laser by: Dr Khor Wei Boon

ASIK (Laser-Assisted In Situ Keratomileusis) has become synonymous with laser vision correction. This surgical treatment has allowed millions of people worldwide to be free from glasses and contact lenses. But despite the fact that LASIK has been around since the 1990s, patients still continue to have misconceptions about this common procedure. As an eye surgeon with two decades of experience, I would like to share five key points that will help you to make an informed decision and set realistic expectations about your LASIK journey. Let us get into these right away!



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#### 1. LASIK is Eye Surgery!

It is a common misconception that LASIK is merely a "procedure" and not an actual surgery. Over the years, I have had more than one patient confidently tell me they underwent a "minor procedure" to correct their vision, only to be surprised when I explained that it was, in fact, a type of refractive surgery. One patient even exclaimed to me, "Was it a surgery, doc? It was so simple; I didn't think it was a surgery!"

The truth is that LASIK is a form of eye surgery. It involves creating a thin flap in the cornea, reshaping the underlying tissue with a laser, and repositioning the flap to promote natural healing. While the procedure is quick, minimally invasive and performed on an outpatient basis, LASIK still requires precise surgical techniques, specialised equipment, and careful preoperative planning and postoperative care to ensure consistently good results. And because it is a surgery, patients do need to understand the benefits of LASIK, and to balance that with the small risk of side effects and complications.

## 2. LASIK is Effective for Myopia, Astigmatism and Hyperopia, but it Cannot Prevent Presbyopia ("Lao Hua")

Myopia, hyperopia and astigmatism are all forms of refractive error, where light rays that enter the eye do not focus properly on the retina - the light-sensing layer at the back of the eye. LASIK is especially effective in correcting myopia and astigmatism, and the majority of patients will achieve 6/6 vision (the ability to read the smallest line on the vision chart) without the need for glasses. Imagine waking up in the morning without having to reach for your glasses, or being able to travel without the hassle of packing contact lenses and solutions!

While LASIK can correct refractive errors, it does not prevent presbyopia, the age-related decline in near vision that typically begins in your 40s. The ability to focus on near objects depends on the flexibility of the eye's lens and the strength of tiny muscles that adjust its shape, much like an autofocus mechanism. As we age, the lens hardens

and the muscles weaken. This causes a gradual loss of near focus. Unfortunately, no surgery, including LASIK, can reverse or prevent this ageing process.

Thankfully, all is not lost. Patients with existing myopia and presbyopia may choose to have monovision correction with LASIK. In monovision, one eye has full correction of the refractive error, which results in good distance vision, while the other eye is left slightly myopic, so that the point of focus remains at near. While it might take some time to adapt to monovision, many patients find it reduces their dependence on reading glasses, and offers a practical solution for presbyopia.

#### 3. LASIK is Safe, but No Surgery is Risk-Free

LASIK is one of the safest eye surgeries available today - thanks to decades of experience with the surgical technique, detailed understanding of how LASIK affects the eye, and continuous advancements in technology. But as with any surgery, there is always the potential for side effects and complications.

Even when the surgery goes well, some patients may experience temporary side effects such as dry eyes. This is part of the healing process, and will typically recover over weeks and months. An even smaller number of patients may experience changes in night vision. For example, lights may not appear so focused at night, with halos or starbursts appearing around streetlights or car headlights. These changes may improve over time, but they may never completely go away. If you rely heavily on night driving or similar activities in dark environments, it is important to consider how such changes might affect your work and daily activities.

Also, as with any surgery, there remains a small risk of complications. These complications may include infection or damage to the cornea, which are fortunately very rare when LASIK is performed by a skilled and experienced surgeon. To put it into perspective, you are more likely to win first prize in 4D (where the odds are 1 in 10,000) than you are likely to suffer these complications!

#### 4. Not Everyone is Suitable for LASIK

When people find out that I am a LASIK surgeon, the first question they usually ask is: "Is LASIK safe?" My answer is always "Yes!" (refer to point 3).

Invariably, the next question they ask is: "Then why haven't you done it yourself?!"

The answer is that not everyone is a good candidate for LASIK. One of the reasons LASIK is so safe is the rigorous screening process we use to ensure patients are suitable. This process helps to maximise the chances of achieving excellent results while minimising the risks of complications or side effects.

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Ideal LASIK candidates should meet the following criteria:

- At least 18 years old, although 21 or older is preferred to ensure your prescription has stabilised.
- No significant changes in spectacle or contact lens prescription for at least 1-2 years.
- In good health, with no systemic conditions like diabetes or autoimmune diseases that may impair healing.
- No significant eve conditions, such as corneal scarring, infections, cataracts or glaucoma.
- Not currently taking medications like oral steroids or isotretinoin for acne, which can affect healing.
- Not pregnant or breastfeeding, as hormonal changes can cause temporary vision fluctuations.

During screening, patients will undergo a thorough eye examination and specialised tests to determine the thickness, shape and overall health of the cornea. While LASIK can theoretically correct up to -10 dioptres of myopia and -5 dioptres of astigmatism, this very much depends on whether the cornea is healthy and thick enough to support such high amounts of laser correction.

### Lasik Eye Surgery





second laser is used to reshape the cornea precisely





The cornea flap is renositioned, like closing the cover of a book

#### 5. LASIK is Not the Only Option for Laser **Vision Correction**

While LASIK is widely known as a form of laser vision surgery, it is not the only option available. For patients who are not suitable for LASIK or have concerns about it, there are excellent alternatives, such as lenticule extraction and surface ablation. Let us take a look at these alternatives.

#### • Lenticule Extraction: A Flap-Free Option

Lenticule extraction involves using a precise laser to create a thin, lens-shaped sliver of tissue (called a lenticule) within the cornea. This lenticule is then removed through a small keyhole incision. Removing the lenticule changes the shape of the cornea in a way that corrects the eyes' refractive errors. Because this technique does not create a corneal flap like LASIK does, it is an excellent option for patients who participate in high-impact sports, such as martial arts or rugby, where the risk of a flap displacement might be a concern.

#### Surface Ablation: Ideal for Thinner Corneas

Surface ablation techniques, such as transPRK, involve reshaping the cornea by applying the laser directly to its surface, without the need for a LASIK flap. This makes it particularly suitable for patients with thinner corneas who might not be ideal candidates for LASIK. Despite a longer healing time compared to LASIK, surface ablation delivers visual results that are just as good as LASIK or lenticule extraction.

Both lenticule extraction and surface ablation are safe, effective alternatives for when LASIK treatment is not right for you. With these alternative options at your disposal, you can still achieve your dream of clear vision without the need for glasses or contact lenses.

#### Conclusion

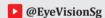
Not everyone is ready to undergo surgery to correct their prescription. Some are perfectly happy with their eyesight. But if you are someone who finds it a hassle to wear glasses or contact lenses, then LASIK is one way to correct your vision. Whether it is waking up to a world in focus, or enjoying travel or sports without glasses, LASIK can finally allow you to live, work and play without limits. PRIME



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