كليفلدند كلينك أبوظبي Cleveland Clinic Abu Dhabi Brought to you by Mubadala

# SEE WHAT MATTERS



## Laser vision correction can offer you freedom from glasses and contact lenses.

The simple surgery, performed in minutes, can correct your eyesight, and offer normal or near normal vision for many patients. No more fumbling for glasses or worrying about contact lenses. See what matters, all day, every day.

#### This information pack covers the following information:

#### Who is suitable for surgery?

- · Common types of refractive disorders
- · The latest vision correction treatment options
- · What to expect before and after surgery
- Frequently asked questions

Cleveland Clinic Abu Dhabi's Eye Institute are experts in eye care. We offer the latest laser eye surgery technology available. This includes the advanced excimer and "bladeless" femtosecond laser systems, which increase accuracy and precision, as well as traditional LASIK and SMILE techniques.

Our team will carry out an individual examination and decide on the most appropriate surgery for you.

#### Is vision correction surgery right for you?

Laser vision correction surgery can restore vision for many people, but not everyone. If you fall into most of the following categories then you may be a good candidate:

- You are at least 18 years old
- You have had stable vision for the past 12 months
- · You do not have a history of corneal disorders or diseases
- · You have no significant medical or ocular problems
- · You are not pregnant or breast feeding
- You dislike your glasses and do not find contact lenses comfortable or convenient
- You understand that laser vision correction may improve your vision significantly but corrective lenses may still be needed for some specific activities in the future, such as driving at night
- You prefer how you look without glasses
- You are tired of the ongoing expenses of buying replacement contact lenses, solutions, cleaners, cases and spare glasses and can view laser vision correction as a good long-term investment



## **Common Types Of Refractive Disorders**

The ability to see clearly, without the need of glasses or lenses, depends on many factors. As light rays enter the eye, they are focused, or "refracted," inside the eye. The shape of the cornea, the power of the lens and the length of the eyeball all determine how well the eye refracts light. In a normal eye, the light is focused sharply on the retina and a clear image is seen at all distances. In people with refractive disorders, a disproportionally shaped eye causes the light to focus in front of, or behind the retina, making objects appear blurred.

#### There are four common types of refractive disorders:

#### Nearsightedness

Nearsightedness (myopia) occurs when the cornea is too steep or the eyeball is too long, allowing light rays to focus in front of the retina instead of directly on it. Images of distant objects are blurred, but close objects may be clear.

#### Farsightedness

Farsightedness (hyperopia) results when the cornea is too flat or the eyeball is too short so that light rays focus directly behind the retina, causing near objects to appear blurred. Farsighted people can focus on distant but not near objects.

#### Astigmatism

Astigmatism occurs when the curvature of the cornea is irregular and is shaped more like a rugby ball rather than a normal round eyeball. This irregularity creates multiple focal points in the eye and makes it difficult to clearly focus on an object.

#### Presbyopia

Presbyopia occurs in middle age when the lens inside the eye loses elasticity and is no longer able to focus on near objects. The majority of people over age 40 will need reading glasses to read small print or to see small, poorly lit objects. Refractive surgery does not stop the natural progression of presbyopia.



## **Treatment Options**

#### Which laser vision correction procedure is right for you?

After your initial consultation, your surgeon will make treatment recommendations based on the type and severity of your refractive disorder, and the health of your eye.

#### LASIK:

Laser in-situ keratomileusis (LASIK) is one of the most commonly performed vision correction procedures. The surgery involves creating a thin flap in the top layer of the cornea, and then reshaping the underlying tissue by laser. The flap is then replaced and serves as a buffer to protect the newly treated tissue from irritants, such as your blinking eyelid. Visual recovery and healing are more rapid than in most other procedures. The new generation of bladeless LASIK surgery offered at Cleveland Clinic Abu Dhabi is the most advanced vision correction procedure available. It allows greater accuracy and control, which means better outcomes for patients.

#### PRK:

Photorefractive keratectomy (PRK) is also a commonly performed refractive procedure. This surgery also uses utilizes an excimer laser to reshape the cornea, but instead of lifting a small flap to reach the sub-layer of the cornea, the outer layer is removed completely. This skin layer regrows in about three to five days. You may need to wear a "bandage contact lens" for a few days to shield the newly treated surface from irritants, such as your blinking eyelid. With PRK, vision is not restored as quickly as it does with LASIK and patients experience slightly more discomfort while healing. However, our surgeons do recommend some patients undergo PRK instead of LASIK because it often leads to better long-term results in some people.

#### SMILE:

Small Incision Lenticule Extraction (SMILE) offers the latest cutting-edge technology in refractive surgery. This procedure is less invasive than other surgeries, and can offer vision correction in patients with a high myopic prescription, which were previously treated by standard LASIK laser eye surgery. During the procedure, eye anesthetic drops are used to completely numb the eye, and the VisuMax laser places a series of pulses in the centre of the cornea with precise 3D placement accuracy. These pulses form bubbles that are less than 100/1th the width of a human hair, and which outline the tissue that needs to be removed to effectively change the shape of the cornea. The laser then creates a tiny connecting tunnel through which the surgeon draws out this tissue. Vision doesn't return as quickly as it does with LASIK and it may take several weeks to obtain full vision results. It is recommended for those with higher prescriptions and those that are more prone to dry eyes.



## What To Expect

How well you see without glasses or contact lenses following laser vision correction depends on your vision before the procedure. In most cases, you will be able to obtain the same vision correction with laser surgery as you had with glasses or contact lenses. People with mild prescriptions generally have the best success in obtaining normal vision. People with more severe vision prescriptions may require glasses or contact lenses for some situations, such as night driving.

Success rates at the Cleveland Clinic Abu Dhabi Eye Institute are very high. Our surgeons have performed thousands of procedures and complication rates are less than 1 percent.

Most people who undergo a procedure for vision correction agree that it has had a positive impact on their quality of life.

#### **Before Surgery**

If you are considering having laser vision correction, the best way to learn more is to come in for a consultation at Cleveland Clinic Abu Dhabi's Eye Institute. Your consultation will begin with a meeting with one of our Clinical Optometrists. They will review your medical history with you and answer your initial questions. Next, we will perform basic tests of your eyes, including checking corneal thickness, assessing your refraction and possibly dilating your pupils. Once all testing is completed, your Optometrist will discuss which laser vision correction procedure would work best for you. If you are a suitable candidate, you will meet with your Refractive Surgeon who will discuss the procedure with you in more detail and answer any questions you may have.

It is important that you do not wear your contact lenses for 2 weeks before your appointment (three weeks if you wear rigid gas permeable lenses) and that you bring your glasses with you so we can review your prescription.

#### After Surgery

The team at Cleveland Clinic Abu Dhabi's Eye Institute will ensure you receive the highest quality postoperative care. To help you achieve maximum visual results, plan on scheduling a minimum of three follow-up appointments after your surgery. These will need to occur one day after surgery, one week after surgery and three months after surgery.



## What To Expect After Surgery

Your vision may be blurry and hazy for the first day. Plan to have someone drive you home after your procedure. You may experience some discomfort or sensitivity to light for the first several hours after LASIK and the first several days after PRK. Your vision may fluctuate between clear and blurry for the first few weeks. You may need to wear glasses for night driving or reading until your vision stabilizes. Your eyes will be dry even if they do not feel that way. Your vision may improve after using drops prescribed by the ophthalmologist. These drops may burn or cause temporary blurring of vision. Do not use any drops not approved by your ophthalmologist.

#### Are there any restrictions after surgery?

It generally takes about two to four weeks for the eye to stabilize following surgery. Some special precautions to prevent injury or infection should be taken during the initial postoperative period, including:

• Do not rub your eyes for the first week. Wear the eye shield/goggles that you receive in your

postoperative kit when you are sleeping for the first three nights.

- Do not let tap water get in your eyes for a week.
- Do not go swimming for 10 days.
- Do not wear eye makeup for one week.
- Do not get your hair colored or treated for 10 days.
- Do not exercise for two days. Once you have resumed sports activities, wear eye protection for the first month.
- Do not take a shower or wash your hair until the next day. Avoid getting soap in the eye when bathing and washing your hair for one week. Also, avoid getting products such as hair spray and shaving lotion in your eyes during this early healing period.
- Wear sunglasses when you go out on a sunny day to protect your eyes from UV exposure for the first several months, especially if you had PRK.

If you have any questions after your surgery or if you experience pain, sudden decrease in vision, red eye or discharge, contact us immediately.

Above all, enjoy your new freedom. The freedom to read your alarm clock without fumbling for your glasses. The freedom to exercise without worrying about your contact lenses. And the freedom to see clearly all day, every day.



## **Frequently Asked Questions About Refractive Surgery**

#### Can I have both eyes treated at the same time?

Yes. Many patients prefer to minimize the time off work and reduce the amount of healing time they experience after surgery, so they have both eyes treated during the same visit.

#### How long will my surgery take?

The procedure itself takes 20 to 30 minutes, but there will be some tests done before and after so plan to be in the clinic for about two to three hours.

#### Can I drive myself home after surgery?

No. Your vision may be blurry for a few hours after the procedure and you will be given a mild oral sedative prior to surgery, so someone will need to drive you home. Many people are able to drive within a few days, as their vision settles.

#### Will I have to limit my activities after surgery?

You should avoid strenuous activity or visually demanding tasks up to one week after surgery, until the cornea heals and vision stabilizes.

#### Can I play sports right after the procedure?

No. Strenuous activities, contact sports and swimming should be avoided for two weeks.

#### How soon can I use eye make-up?

You should avoid using eye make-up for the first week after surgery to reduce the risk of infection.

#### Can I get water in my eyes?

No. You should avoid getting water in your eyes for about two weeks after surgery, so be careful when washing your face and hair.



#### What are enhancements (touch-ups)?

Your vision after surgery will be perfect or potentially less than perfect. The laser is extremely accurate at resculpting the shape of your eye, but healing varies from person to person. Usually, this imperfection can be fixed with a minor procedure called an enhancement or touch-up. If needed, the enhancement is typically performed three months or so after the initial surgery. These enhancements are needed in about 10 percent of all cases.

#### Is refractive surgery covered by insurance?

Refractive surgery is an elective surgery and, therefore, usually is not covered by insurance companies. Some plans will cover surgery depending on the strength of your glasses.

#### What are the most common complications?

The most common complication is either over-correction or under-correction, both of which can be treated.

Individual variation is part of any refractive surgical procedure. While everyone hopes for perfect vision, perfection is not always the result. Your expectation should be a reduced dependence on glasses and contact lenses, realizing that they may still be needed for some activities. Dry eyes are also common in the early post-operative period. Sight-threatening complications are very rare.

### Will my vision be stable? Is it possible that my vision could be worse than before? Could my vision gradually decline?

Although rare, there is a slight chance that your vision could be worse or gradually decline due to various factors. Our corneal refractive surgeons make sure to choose the right candidates and the right procedure for each patient. The follow up appointments are important to determine stability in vision and if a decline is noticed, further treatment is usually possible.

#### Will I be able to wear contact lenses if I still need them after refractive surgery?

Yes. In most cases, corneal refractive surgery does not interfere with the use of contact lenses. It is best to not wear contact lenses until the cornea has fully recovered since there is an increased risk of dry eyes after refractive surgery and contact lenses can worsen these symptoms.



#### Will I need to use eye drops?

Depending on your specific procedure, eye drops will be needed for anywhere from three days to six months, but not permanently. Long term use of artificial tears may be needed for dry eye problems.

#### When will I need to get my eyes checked again after surgery?

Follow up visits are typically one day and four to seven days after surgery. Then there will be routine checks every three months for the first year. After that, you will have your routine annual eye exams.

## **Book An Appointment:**

If you are interested to learn more about laser vision correction at Cleveland Clinic Abu Dhabi, contact us today to get your first appointment with one of our clinical optometrists and refractive surgeons. Our dedicated refractive coordinator will walk you through the entire journey and answer any questions you have.

**Email:** refractivesurgery@clevelandclinicabudhabi.ae **Contact Number:** 800 8 2223 (CCAD)