Clear Lens Extraction (CLE)

How it works: This procedure is approved for very high corrections. Phakic IOLs are used in patients with correction -3.00 diopters to -20.00 diopters of correction, with limited amounts of astigmatism.

Who can benefit?: This procedure may be used for patients who have farsightedness or nearsightedness combined with astigmatism. Presbyopic patients can also benefit.

Multifocal Lenses

How it works: In 2005 new technology became available for patients desiring both uncorrected distance and near vision after lens implant surgery. These specially designed lenses allow the light to be processed in such a way as to facilitate distance and near vision without glasses. Not everyone is a candidate for this technology, and certain side effects may occur.

Who can benefit?: Generally these lenses are used in patients over 40 who suffer from cataracts or extreme levels of nearsightedness or farsightedness.

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THE MORAN EYE CENTER

The University of Utah’s John A. Moran Eye Center is one of the top eye care and vision research centers in the world and the largest eye center between Texas and the West Coast. It serves the eight million residents of the Intermountain West and is home to the University of Utah School of Medicine’s Department of Ophthalmology and Visual Sciences. The center specializes in the treatment and research of all eye diseases. The center’s refractive surgery program is known for its comprehensive and conservative approach to laser and non-laser vision correction. Based at the Moran Eye Center’s Midvalley location, the refractive surgery division is committed to educating patients about the risks and benefits of vision correction surgery. The program is recognized as a regional referral center for patients with complex LASIK cases or who have experienced complications following refractive surgery. The refractive surgery training program and fellowship is consistently rated as one of the top 2 or 3 in the U.S.
Presbyopia is a condition where with age, the eye exhibits a progressively diminished ability to focus on near objects. Astigmatism occurs when the eye focuses on more than one spot on the retina, resulting in blurring of vision. Astigmatism can occur with myopia (nearsightedness), hyperopia (farsightedness), or a combination of these conditions.

In a nearsighted person, the cornea is too steep or the eye is too long and the focal point is in front of the retina resulting in blurred vision. In a farsighted person, the focus of the eye is behind the retina. People who are farsighted may have trouble seeing at distance and near.

Who can benefit? LASIK candidates must fall within established parameters for refractive error, corneal thickness and pupil size. The best way to find out whether or not you’re a candidate for LASIK is to have a thorough examination by a qualified refractive surgeon.

How it works: LASIK involves creating a thin flap on the cornea. Pulses of the laser reshape the cornea.

LASIK utilizes the excimer laser to reshape the cornea under a protective layer of tissue. The excimer laser uses cool ultraviolet light to treat the cornea. It does not treat beyond the cornea and is extremely precise. The procedure allows for rapid visual recovery within 24 hours, and there is minimal postoperative discomfort.

Who can benefit? LASIK - Laser In-situ Keratomileusis. This revolutionary technique uses excimer laser technology to precisely reshape the cornea, effectively treating vision problems. As a result of LASIK, many patients have found their vision restored up to, or better than, 20/20.

A word of caution before you throw out your glasses or contacts: LASIK treatment is not for everyone. There are good and bad candidates for LASIK. The purpose of this brochure is to explain which patients are eligible for LASIK and to introduce other types of vision correction procedures that may better suit your needs.

What is LASIK? If you are one of the 70 million people currently diagnosed with myopia (nearsightedness), hyperopia (farsightedness), astigmatism, or a combinations of these conditions, you probably have heard of LASIK. In the past, a microkeratome blade was utilized to create the LASIK flap. While this technology works very well, it carries a higher risk of complications. LASIK flaps at the Moran Eye Center are created exclusively with the femtosecond laser which allows for a more consistent and reproducible procedure and safer, more precise outcomes.

How it works: The flap-cutting laser creates a pulse of energy for the duration of a femtosecond or 10^-15 seconds. The short duration prevents any damage to the surrounding tissue. The femtosecond laser produces thousands of pulses to create a perfectly shaped flap on the cornea.

If you are not eligible for LASIK, all is not lost. There are a variety of other vision correction procedures that may offer a solution.

All Laser LASIK

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Other Laser Procedures

Advanced Surface Ablation-Photorefractive Keratectomy (PRK)

How it works: This procedure uses an excimer laser to gently and accurately reshape the surface of the cornea similar to LASIK, but no flap is created. The patient goes home with a soft contact lens bandage over the eye for 3-5 days. Visual recovery with PRK is about one to three weeks. Statistical outcomes for PRK are equivalent to LASIK outcome statistics.

Who can benefit? Most patients who are eligible for LASIK can have PRK. This technique may be preferred for patients with thinner corneas or severe dry eyes.

Photorefractive Keratectomy (PRK)

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Non-Laser Procedures

Collagen Cross-Linking

Keratoconus is a degenerative cornea disorder resulting in varying degrees of thinning and steepening of the cornea. Keratoconus makes LASIK or PRK unfeasible. This disorder often requires the use of rigid gas permeable lenses for adequate vision. Severe cases may necessitate a surgery called INTACS or even corneal transplantation. Collagen cross-linking (CXL) is a relatively simple, outpatient procedure and is becoming a promising alternative to these more invasive cornea surgeries.

Corneas are treated with riboflavin eye drops and then exposed to ultraviolet A (UVA) light. This induces the formation of chemical bonds between the cornea collagen fibers which increase the strength and stiffness of the cornea.