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PHOTOREFRACTIVE KERATECTOMY (PRK)

PATIENT INFORMATION BOOKLET

Please read this entire booklet. Discuss its contents with your doctor so that questions are answered to your satisfaction.

Introduction

This booklet contains information to help you decide whether or not to have Photorefractive Keratectomy (PRK) laser surgery for the correction of your refractive error(s). Glasses, contact lenses or other refractive procedures such as Laser in Situ Keratomileusis (LASIK) also correct refractive errors.

If you have refractive errors in both eyes, it may be necessary to have both eyes treated. It is possible and may be medically appropriate to treat each eye differently, one eye PRK, one eye LASIK. Simply stated your eyes are different in terms of prescription and each is considered and treated based on individual characteristics. Certainly, it is possible that both eyes could and likely will be best served using the same refractive procedure.

Your doctor will advise you, as to not only the best treatment option but also which laser platform is best suited for your refractive needs. In some cases the doctor will advise against all currently available treatment options. Only an eye care professional can determine the appropriateness of your candidacy for refractive surgery.

What is Modern Photorefractive Keratectomy?

PRK is performed worldwide to correct myopia, hyperopia and astigmatism. The PRK procedure is performed using topical anesthetic eye drops and involves the surgical removal of the surface layer of the cornea known as the epithelium. Topical anesthetic drops are extremely effective making significant discomfort during the procedure very rare. The epithelial layer is typically only 50 microns thick and is removed by the laser or a specialized instrument designed for this specific purpose. After the superficial epithelial layer is removed the computer-controlled cool-beam excimer laser reshapes the cornea correcting your specific refractive error.

How Do PRK and LASIK Differ?

In the LASIK procedure a device called a microkeratome creates a hinged flap in the superficial layers of the cornea. This flap is lifted, the cornea is reshaped and the flap is returned to its original position. In the PRK procedure as earlier described, only the outer-most layer of the cornea is mechanically removed prior to the reshaping of the cornea. A protective contact lens is placed over the treated cornea facilitating a more comfortable healing process. Most LASIK patients do not require the protective contact lens. Due to the healing process the visual recovery is initially delayed in the PRK patient. PRK patients require more frequent postoperative visits to monitor corneal healing. Statistically, visual outcomes for PRK and LASIK are virtually identical. Otherwise, the reshaping of the cornea is the same in both PRK and LASIK procedure.

Benefits

- PRK protects the structural integrity of the cornea
- PRK is a corneal tissue sparing procedure
- Larger treatment zones are possible
- Minimized or eliminates flap related risks and complications
- Comparable visual outcomes to LASIK at 3-6 months
- Appears to have slightly lower enhancement rates compared to LASIK

Risks

This booklet is intended to provide a basic overview of PRK. It does not provide a comprehensive list of all risks and potential benefits of PRK or any other refractive procedure. As with all surgical procedures there are associated risks with PRK.

Please review your consent form(s) prior to the day of your procedure.

Risks that you should understand and consider prior to electing to undergo PRK include but are not limited to:

- Slightly higher incidence of infection compared to LASIK
- Increased risk of haze in PRK compared to LASIK
 - Significantly decreased risk with the use of Mitomycin
- Longer visual recovery required compared to LASIK
 - Clarity and acuity better initially in LASIK patients
- Postoperative discomfort noted more frequently in PRK patients compared to LASIK patients
- Depending on your job you will likely require at least a week off work
- More office visits are required compared to LASIK patients
- Patient compliance with postoperative medications and instructions are imperative
- PRK patients require more patience and understanding of the healing process compared to LASIK patients

During the First Week Following PRK

- Pain and discomfort may last several days after PRK. Symptoms are controlled by following postoperative instructions and strict compliance with prescribed medications.
- Expect blurry vision
- Expect tearing and burning
- Expect increased light sensitivity
- Avoid environments that increase your risk of infection, such as pools and hot tubs
- Avoid rubbing your eye(s) and use proper eye protection when necessary
- Expect to wear a protective contact lens as directed by your doctor

The First Month Following PRK

- Continue to follow instructions provided by your doctor, this may include continued use of medications and eye protection
- Expect fluctuations and differences in vision as you continue to heal
- You may require additional visits to monitor healing
- Be patient, everyone and every eye heals differently
 - Avoid comparisons with others who have had LASIK, PRK or other refractive procedures

Complications (potential)

This booklet does not provide a comprehensive list of potential complications and is intended to provide only basic information. Please review your consent form(s) and discuss questions and concerns with your doctor.

For informational purposes a few potential complications are listed below:

- Infection
- Discomfort
- Scarring
- Haze
- Visual Outcome (especially within the first month) may not meet your expectations
- Slow healing in some patients

Indications and What Makes a Good Candidate for PRK

Discuss your specific refractive error(s) with your doctor

Most commonly PRK is indicated for individuals who:

- Have refractive error(s) that is/are within FDA approved parameters for correction
- Have thin corneas, especially those with thin corneas and large pupils
- Understand the risks vs. potential benefits of refractive surgical procedures
- Understand the differences between LASIK and PRK
- Demonstrate willingness to comply with prescribed postoperative instructions and medications

Summary of Important Information

PRK differs from LASIK in several important ways:

- Mechanical removal of surface cells instead of cutting a flap
 - Avoiding potential flap risks and complications
- More postoperative discomfort, tearing and burning
- Requires a protective contact lens for the first 5-7 days
- Slower visual recovery
- Requires a longer healing period which may include missed work and limitation of certain types of activities
- More postoperative visits are required
- After 3 months PRK and LASIK patients enjoy similar outcomes
- PRK may be the only safe treatment option for certain patients
- PRK patients may have a slightly lower enhancement rate than LASIK patients
- Strict compliance with prescribed medications and postoperative directions is imperative for all patients who undergo refractive surgery but especially important for PRK patients