

Naval Hospital Bremerton Refractive Surgery Center

Pre Surgical Information Sheet

What to expect

- You will have a minimum of three different appointments at our clinic before your day of surgery if you are found to be a good candidate. Today you will be seen by a technician to have many diagnostic tests and measurements done to measure stability as well as making sure your eye anatomy fits the criteria for corneal refractive surgery. In some cases, unfortunately you may not make it past this first step due to thin corneas, abnormal corneas, a prescription that is unstable or other unforeseen circumstances.
- We want to do as many surgeries as possible, but there are risks with any type of surgery and there are those patients where the risks are too high and against FDA regulations to proceed. In some cases you may have to come back at a later date to have multiple tests repeated before you go to the next step of your evaluation.
- The next step is to have a dilated eye exam, where our doctors will check the health of the external and internal structures of your eyes and get final prescription measurements. If you are deemed a good candidate after this exam you might be told that you can book a tentative date for surgery. Your surgery date is tentative as your chart is heavily reviewed by our surgeons, optometrist, nurse and administrative staff to make sure that you are in fact a good candidate for surgery at that time.
- This procedure is elective and can be canceled at any time if we feel that the risk is too great to where you might not have an optimal outcome. If deemed a good candidate, along with a tentative surgery date, you will be given an appointment to come to our clinic the day before your surgery. At this appointment you will spend up to four hours with our clinic nurse and your surgeon for an informed consent. You will be given further education and time to ask any unanswered questions not covered in this education sheet and the booklet provided.

Corneal Refractive Surgery

The clear front surface of the eye is called the cornea. The cornea is comprised of different layers that do different jobs. In corneal refractive surgery, it is important to get to the toughest and strongest part of the cornea called the stroma. The stroma can be permanently reshaped by a laser to try to reduce your dependency on glasses. The stroma is covered by a top layer of skin called the epithelium. The epithelium heals quickly and cannot be permanently reshaped. It needs to be removed or moved out of the way to get to the stroma so that the stroma can be sculpted according to your prescription.

Both PRK and LASIK are refractive surgery techniques used to remove (PRK) or move (LASIK) the top surface skin cells of the cornea, so that an ultraviolet (excimer) laser can be applied to reshape the stroma.

PRK VS. LASIK

PRK (Photorefractive Keratectomy)

In PRK, the surgeon creates a corneal abrasion removing the top layer of cells from the cornea (called the epithelium) over the treatment area. This is done mechanically, with a soft rotating surgical brush, after topical numbing drops are applied. The second step of PRK is identical to LASIK: an excimer laser is used to reshape the underlying corneal tissue.

After the laser ablation, a soft contact lens is placed over the eye as a bandage while the corneal epithelium grows back in place, which usually takes about 3 to 5 days. During this period, you will usually experience mild to marked discomfort with blurry vision. Because of the greater amount of healing that needs to take place after PRK, it can take several weeks before vision is clear and stable after the procedure.

IntraLase LASIK (Laser Assisted In Situ Keratomileusis)

The IntraLase LASIK method creates a corneal flap beneath the epithelium by applying tiny, rapid pulses of laser light. Each pulse of light passes through the top layers of your cornea and forms a microscopic

bubble at a specific depth and position within your eye that is determined by the doctor. As the IntraLase laser moves back and forth across your eye, a uniform layer of bubbles forms just below the corneal surface. Your doctor creates your corneal flap by gently separating the tissue where these bubbles have formed. The corneal flap is then folded back so the doctor can perform the excimer laser treatment, and folded precisely back in place once the excimer treatment has ended.

What to expect day of surgery:

1. Your paperwork will be reviewed while you are waiting, and any corrections or additions that are needed will be made.
2. Your identification will be confirmed at several stages along the process and we will ask if you have any allergies to any medications, what type of procedure you are scheduled to undergo and which eye(s) will be treated.
3. Our team will prepare you with several eye drops and sterile soap wash prior to entering the laser suite. If the surgeon determines you have significant astigmatism, you may also have “marking” done on the surface of your eye.
4. You will be brought into the laser suite, where you will have a seat on a “dentist-like” chair and have the non-operative eye patched (this is for safety reasons).
5. The surgeon and surgical team will all be wearing a mask and hair cover.
6. For your comfort and to reduce any unnecessary head movement, you will have a special pillow placed under your head.

(LASIK only)

- A suction ring will be placed on the eye. Once it is centered, the surgeon will call for suction to be applied. The suction holds the eye still while a special laser creates a flap on the surface of the cornea. ***When the suction is on, it will be difficult for you to see; things may turn gray or dark. This is a temporary effect from the suction and is normal. Your vision will return when the suction is released. The suction device may be a bit uncomfortable, but will only last a few minutes.***
- After the flap is created, suction will be turned off and the ring removed.
- An eyelid spreader will be placed into the operative eye to keep the eyelid open.
- This flap of tissue (Lasik flap) will be gently folded back so that your surgeon can apply the excimer laser.

(PRK only)

- An eyelid spreader will be placed into the operative eye to keep the eyelid open.
- A brush will be used to remove the top layers of skin from the surface of your cornea. It will not be painful because you will have topical numbing medication applied. Once the tissue is removed, your surgeon will apply the excimer laser.

(PRK and LASIK)

7. You will be asked to focus on a flashing red/orange light and the procedure will begin. The flashing red light may get a little blurry during the procedure, which only lasts a few seconds to a few minutes depending on your prescription. ***The procedure is painless.*** The laser is not a “hot laser” it is ultraviolet and will not burn you.
8. You will hear a popping noise next to your right ear. This is just the sound of the laser at work. You may also smell a faint odor during your procedure. This is the tissue being removed from your cornea. A couple of eye drops will be instilled into your eye following your procedure. For some patients, a bandage contact lens will be applied for temporary use only. Our staff, at your follow up visit, will remove this lens. Please note that your vision will be blurry immediately after the procedure, but will improve with time.
9. All patients will have a postoperative exam performed prior to being released. As soon as you get home you should begin taking your medication as directed and take a nap for at least 2 hours to allow the healing process to begin.