

# LASER VISION CORRECTION

*Our Vision is Perfecting & Protecting Yours*

BLACK HILLS  
REGIONAL

THE EYE  
INSTITUTE



# UPCOMING APPOINTMENTS

PHONE 605-718-3937

NAME \_\_\_\_\_

CONSULTATION WITH DR. SCOTT SCHIRBER \_\_\_\_\_

CONTACT LENSES OUT ON \_\_\_\_\_

## Contact Lenses

If you are a contact lens wearer, you should remove your contact lenses 3 days prior to your exam. Contact lenses can affect the shape of your eye, which can affect your measurements.

## SURGERY

- Plan to
- ☐ Have a driver
  - ☐ Dress comfortably
  - ☐ Bring drops
  - ☐ Wear no makeup
  - ☐ Plan to be here 2.5 hours

ONE DAY POST-OP

ONE WEEK POST-OP

ONE MONTH POST-OP

THREE MONTH POST-OP

*\*\*Annual Eye Exam is needed to keep Extended Vision Plan valid. This appointment can be with your local optometrist.\*\**

# TRUST OUR TEAM OF DOCTORS

We are fortunate to have an experienced laser vision team. We will take great care of you and your eyes.

Our doctors are...

- Certified and experienced with similar technology that led to the approval of LASIK for Military and NASA pilots.
- Experienced with several types of eye surgeries such as LASIK, PRK, ICL, and Lens Exchange, allowing the Eye Institute to offer the procedure that is right for you.
- National and international lecturers and have been published in various journals and medical textbooks.

Dr. Khachikian is a board-certified ophthalmologist specializing in cataract surgery, lens implantation, corneal surgery and retractive surgeries such as Lasik, PRK, and refractive lens exchange. He has performed thousands of surgeries and your safety is his number one priority.

Dr. Schirber had LASIK and personally knows what the surgery and recovery process are like. He has your best interests in mind when helping you decide which procedure is right for you.

## DURING YOUR CONSULTATION

We Will:

- Measure your pupil size.
- Perform a Pentacam test to map the shape contour and thickness of your cornea.
- Complete a comprehensive evaluation.
- Perform a cyclo dilated examination which allows us to see the total health of your eyes.
- Test your eye pressure.

## LASER VISION TEAM



Stephen Khachikian, MD



Scott Schirber, OD



# LASIK vs PRK

LASIK and PRK are both forms of laser vision correction, and they are quite similar in that a laser is used. In our experience, the results are the same, with both procedures achieving 20/20 or better for most patients.

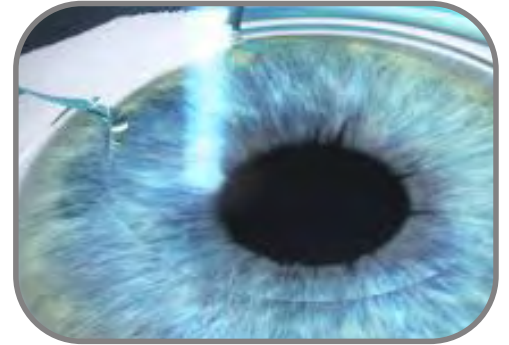
## What's the difference?

In **LASIK**, the first step is the creation of a thin flap of tissue on the cornea using a femtosecond laser. This flap is folded back, and a laser is used to reshape the eye to improve vision. The thin flap is then replaced and allowed to heal.

**PRK**, or surface laser correction, uses the same laser to reshape the eye, but without the creation of a corneal flap. Instead, the skin cells on the surface of the cornea are gently removed, and the reshaping laser is applied. The skin cells regenerate over three to four days.

**The biggest difference between the procedures is the healing and recovery.** With LASIK, many patients will see 20/20 and can return to work the next day! With PRK, most patients will be able to return to work four to five days after the procedure. Vision improves more slowly as the epithelial cells need more time to heal with PRK than with LASIK.

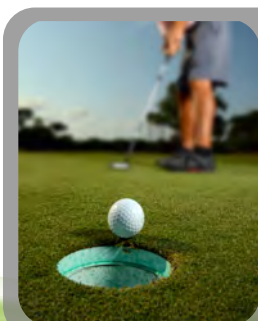
While PRK has a longer recovery, it can have safety advantages for some patients. Finally, we typically prefer PRK for those requiring enhancement years from their original LASIK treatment.



## What's best for me?

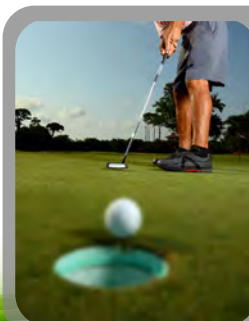
Both LASIK and PRK are great procedures that typically achieve excellent results. The procedure that is best for you will be based on our team of doctor's collective experience of helping thousands of patients achieve improved vision, as well as your input into your desired method of correction.

# UNDERSTANDING REFRACTIVE ERRORS



### NEARSIGHTEDNESS

Nearsightedness, or myopia, occurs when the cornea is too curved or the eye is too long. This causes light to focus in front of the retina, resulting in blurry distance vision.



### FARSIGHTEDNESS

Farsightedness, or hyperopia, occurs when the cornea is too flat. This causes light to focus beyond the retina and results in blurry near vision.

# TECHNOLOGIES



The WaveLight® EX500 Excimer Laser is the only excimer laser to operate at 500 Hz, with an average treatment time of 1.4 seconds per diopter

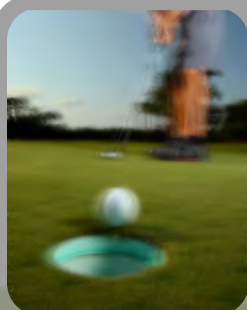
Utilizing proprietary PerfectPulse Technology®, the WaveLight® EX500 Excimer Laser maintains a high pulse frequency with a minimized thermal load: With a powerful 1050 Hz-type multi-dimensional eye tracker, synchronized at 500 Hz, the WaveLight® EX500 Excimer Laser offers exceptional precision:

- Movement tracking with just 2 milliseconds of latency
- Dynamic pupil tracking from 1.5 mm to 8.0 mm

## Wavelight FS200

The Wavelight FS200 creates faster flaps than other technologies, is extremely precise and allows for safe flap creation. It pairs perfectly with the EX500 excimer laser to create a great LASIK experience.

Wavelight Plus is the latest technological advancement in laser vision correction. Using ray tracing and Sightmap measurements, the technology creates a customized laser treatment to optimally reshape the eye.



### ASTIGMATISM

Astigmatism often occurs alongside either farsightedness or nearsightedness. Astigmatism is when the cornea is shaped like a football and causes light to focus on more than one point on the retina blurring or distorting vision.



### PRESBYOPIA

Presbyopia is the natural aging process of the eye that affects everyone, usually starting around age 40. As we age, the natural lens in our eye loses flexibility, decreasing the ability to focus on things up-close, requiring the need for reading glasses.

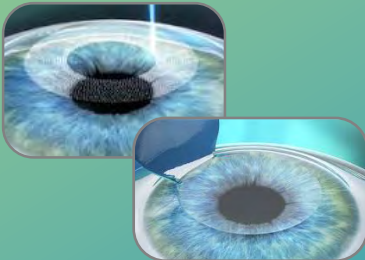
# WHAT IS LASIK?

LASIK has evolved and the Eye Institute utilizes the most advanced technologies available. Laser flap creation, wave-front optimized and topography guided excimer treatment, along with iris registration are advancements over older technologies. The LASIK procedure takes 10-15 minutes, is painless and offers a quick visual recovery.



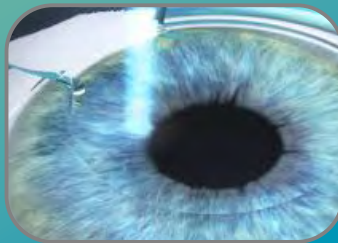
## The LASIK Procedure

### STEP 01



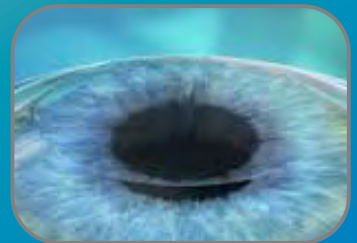
Before the laser is used, numbing drops are applied to the eye. A laser is used to create the corneal flap with the safety and precision of a computer-controlled laser beam. The surgeon then gently folds this flap back to prepare the eye for the treatment laser.

### STEP 02



A cool laser beam is used to reshape the cornea and eliminate sources of aberration. There are multiple tracking and alignment systems in place to ensure both safety and accuracy throughout your entire procedure.

### STEP 03



Finally, the protective flap that was created in step two is gently placed back in its original position. The cornea begins healing immediately and you can return home.

## YOUR SURGERY DAY

Please plan for the following:

1. Have a driver.
2. Dress appropriately for 66-68 degrees in the Laser Surgery Suite.
3. Eat before you come to surgery.
4. DO NOT wear makeup, perfume, cologne, aftershave or fragrant lotions.
5. Plan to be at our center for at least 2.5 hours.

### Contact Lenses

If you are a contact lens wearer, you should remove your contact lenses at least 3 days prior to your exam and surgery. Contact lenses can affect the shape of your eye, which can affect your measurements.



# WHAT TO EXPECT

## The Day of your procedure

The day of your procedure, we ask that you arrive at your scheduled check in time. We will review your post-operative medications, activity restrictions and answer any remaining questions you may have. Be sure to wear comfortable clothing. You will remain awake through the procedure, during which you can expect to experience little to no pain.

## What to expect:

- 1.) The LASIK procedure will take approximately 10-15 minutes. Actual laser time is seconds. You will feel some eye pressure, but typically no pain. Before surgery, you will be provided a Valium and a relaxing environment.
- 2.) The afternoon or evening after LASIK, your vision slowly improves. You may use your eyes normally.
- 3.) The day after LASIK, your eyes may look bloodshot, feel slightly sore and scratchy and your vision may still be slightly blurry.
- 4.) The days following LASIK, your vision may fluctuate, you may have light sensitivity and you may have halos at night. LASIK increases the chance for excellent vision and has quicker healing than older types of surgery. It is extremely important to avoid rubbing or bumping your eye for the first week after your LASIK procedure.

## RESTRICTIONS

### First 7 days:

1. No rubbing of eyes
2. No eye makeup
3. Night Shield

### First 2 Weeks:

1. No swimming or hot tubs
2. Stay out of oceans, lakes, or rivers

### First Year:

Wear UV sunglasses

## SURGERY DAY – LASIK

Many patients will experience significantly improved vision immediately. \*Patients are given drops to use and protective glasses to wear during sleep for the next several days. We require you have someone drive you home for a day of rest and relaxation. You should wear clear glasses while you are sleeping for the first week after surgery. You will see an Eye Institute doctor for your 1-day post-op visit. You can be seen by your family eye doctor or an Eye Institute doctor for your post-op care after your 1-day visit.



## DAY ONE – AFTER LASIK

Your vision is significantly clearer, if not already 20/20.\*

You have a postoperative exam to ensure everything is healing correctly. Most patients are able to drive and return to work and their everyday activities, and will continue to notice improvements in their vision.



## DAY TWO – AFTER LASIK

You are feeling great and seeing better than ever. Your eyes may get a little tired in the afternoon and you may use drops if your eyes become dry. Your future is looking clear and bright.\*

*\*Individual results vary.*

# LASIK FAQs

## **Does LASIK hurt?**

Because the cornea is numbed with eye drop anesthesia, patients report little to no discomfort during the procedure. Some patients experience some scratchiness of grittiness for a few hours following, while others did not experience any discomfort at all. We ask everyone to go home and take a nap immediately after his or her LASIK procedure. For any discomfort that remains after your nap, Advil or Tylenol is usually sufficient.

## **When will I be able to see?**

Many patients notice an immediate improvement in their vision and have functional vision the very next day. Full visual results are typically reached within one to three weeks but individual results do vary.

## **When can I return to work, drive and to my normal activities?**

You can resume most normal activities such as driving or working, the day after your procedure. Exercising and more vigorous activities can be resumed after the first week. Eye makeup cannot be worn for one week. Swimming or contact sports such as basketball or racquetball should be delayed for three weeks.

## **What if my eye moves during the treatment or I blink?**

During the procedure a device will gently hold your eyelids open, which will prevent you from

blinking. In addition, we incorporate advanced eye tracking technology. The laser will be constantly and minutely adjusted to the position of your eye at any given time. In fact, every four to six milliseconds the eye's location is measured and the laser is automatically aligned. If, at any time, your eye moves too quickly or out of range, the laser will pause and wait for your eye to move back into position.

## **Will I need to wear glasses after?**

Most patients who have undergone LASIK at the Eye Institute no longer need glasses for their daily activities. However, if you're over 40 and do not elect MonoVision, there is a possibility that you will need reading glasses because of the natural aging process of the eye. This condition, presbyopia, occurs as you get older.

## TAKE THE NEXT STEP

Call us today and schedule your FREE Consultation to determine if you are a candidate!

**Call 605-718-3937 or visit  
[www.blackhills.com](http://www.blackhills.com)**



# LASIK DROP SHEET



Laser Vision Center  
(605) 718-3937

EXAMPLE:



Purchase drop  
on the day of  
surgery.



Valium will be provided, on  
the day of surgery.

**Pred-Moxi**  
Shake well before each use

**Artificial Tears**  
Preservative Free.  
no Brand preference.

**DAY of Surgery	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
Pred-Moxi	Pred-Moxi	Pred-Moxi	Pred-Moxi	Pred-Moxi	Pred-Moxi	Pred-Moxi
Hourly While Awake	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Tears Hourly						

WEEK 1  
4x daily

Tears As Needed

WEEKS  
2-4

# WHAT IS PRK?

## PHOTOREFRACTIVE KERATECTOMY

Instead of creating a flap as in LASIK, a solution is used to loosen the cells on the surface of the eye. This layer, called the epithelium, is then gently removed, and the advanced tracking and laser are applied just as it would be in LASIK. After the procedure, a soft-contact lens is placed in the eye to protect the healing epithelial layer. Total surgery time is approximately 10 minutes, both eyes can be done on the same day, and no stitches are required. The surgery is performed while the eye is numb and an instrument is used to prevent blinking.



## The PRK Procedure

### STEP 01



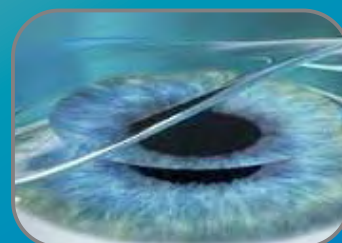
Numbing eye drops are applied so the epithelium, a thin skin covering the cornea, can be painlessly removed to prepare the eye for the treatment laser.

### STEP 02



A cool laser beam is used to re-shape the cornea and eliminate sources of aberration. To ensure both safety and accuracy, there are multiple tracking and alignment systems in place throughout the entire procedure.

### STEP 03



Your surgeon covers the treated cornea with a bandage contact lens. Within days, new epithelial cells grow back, and the bandage contact is removed.

## YOUR SURGERY DAY

# PRK

Please plan for the following:

1. Have a driver.
2. Dress appropriately for 66-68 degrees in the Laser Surgery Suite.
3. Eat before you come to surgery.
4. DO NOT wear makeup, perfume, cologne, aftershave or fragrant lotions.
5. Plan to be at our center for at least 2.5 hours.

### Contact Lenses

If you are a contact lens wearer, you should remove your contact lenses at least 3 days prior to your exam and surgery. Contact lenses can affect the shape of your eye, which can affect your measurements.



# WHAT TO EXPECT

## The Day of your procedure

The day of your procedure, we ask that you arrive at your scheduled check in time. We will review your post-operative medications, activity restrictions and answer any remaining questions you may have. Be sure to wear comfortable clothing. You will remain awake during the procedure, during which you can expect to experience little or no pain.

## What to expect:

- 1.) The procedure will take approximately 10-15 minutes. Actual laser time is 15-60 seconds. You will feel some eye pressure, but typically no pain. Before surgery, you will be provided Valium and a relaxing environment.
- 2.) After PRK, it is normal to have foggy or "smoky" vision. You should go home and take a 2-3 hour nap. You may take the prescribed medication and cold packs for any discomfort. A clear bandage contact lens will be inserted immediately after surgery and will be removed 5 days following treatment by your doctor.
- 3.) The afternoon or evening after PRK, your vision will fluctuate and your eyes may look bloodshot. You can use your eyes normally. Discomfort and light sensitivity are normal.
- 4.) Your vision will fluctuate for the first 3-4 days. The third day after surgery is usually the blurriest. Typically vision achieves a functional level on the fourth or fifth day.

## RESTRICTIONS

### First 7 days:

1. No rubbing of eyes
2. No eye makeup
3. Night Shield

### First Year:

Wear UV sunglasses

### First 2 Weeks:

1. No swimming or hot tubs
2. Stay out of oceans, lakes, or rivers

## PRK

### WEEK ONE – AFTER PRK



Many patients will experience some improved vision. \* For the next several days, patients are given drops to use and protective glasses to wear during sleep. A postoperative exam is scheduled to ensure everything is healing correctly. You should wear clear glasses while you are sleeping for the first week after surgery. You will see an Eye Institute doctor for your 1-day post-op visit. You can be seen by your family eye doctor or an Eye Institute doctor for your post-op care after the 1-day visit.

### WEEK TWO-FOUR – AFTER PRK



Vision typically improves each week. Some shadowing or ghosting in vision is normal and will gradually lessen. By the end of week 4, most patients have approximately 90% of their clarity.

### MONTHS TWO-THREE – AFTER PRK



Most patients notice stabilization of their vision during this time. Dry eye and night vision also improve. Most patients will achieve 20/20 or better during this period.\*

*\*Individual results vary.*

# PRK FAQs

## **What's the difference between PRK vs LASIK?**

The biggest difference between PRK and LASIK is that LASIK involves the creation of a thin-flap within the cornea. This flap is then folded back and a laser is used to reshape the eye to improve vision. This flap is then replaced and the eye begins healing. In PRK no flap is created. The epithelium, or thin skin layer on the cornea, is gently removed and a laser is applied to reshape the eye. A protective contact lens is then placed and the eye begins healing. The results of LASIK and PRK are the same, however the recovery of LASIK is quicker than PRK. Most patients having LASIK are able to return to work the next day, while patients having PRK are typically able to return to work four to five days after treatment.

## **Why wouldn't I qualify for LASIK?**

Patients with thin corneas or very dry eyes are typically better candidates for PRK. Also, those with higher risk professions (military, police, etc.) or hobbies (boxing, martial arts, etc.) are good candidates for PRK.

## **When will I be able to see?**

Many patients notice an immediate improvement in their vision. Most patients achieve functional vision to return to work on the fourth day. Vision gradually improves as the epithelium heals.

## **When can I return to work, drive and to my normal activities?**

You can resume most normal activities such as driving and working within one week after your procedure. Eye makeup cannot be worn for one week. Swimming or contact sports such as basketball or racquetball should be delayed for two weeks.

## **Will I need to wear glasses after?**

Most patients who have undergone refractive surgery no longer need glasses for their daily activities. However, if you're over 40 and do not elect MonoVision, you will need reading glasses because of the natural aging process of the eye. This condition, presbyopia, occurs as you get older.

## **TAKE THE NEXT STEP**

Call us today and schedule your FREE Consultation to determine if you are a candidate!

**Call 605-718-3937 or visit  
[www.lasikrapidcity.com](http://www.lasikrapidcity.com).**



# PRK DROP SHEET

Laser Vision Center  
(605) 718-3937

## Oral Supplements

### Vitamin C:

Take 500mg 2x/day, starting day of surgery and continue for 1 month after surgery.

**Omega 3:** Take 2-3grams daily of Omega 3 supplements day of surgery and continuing for 1 month after surgery.

EXAMPLE:



Purchase drop  
on the day of  
surgery.



Hydrocodone rx will be sent to your pharmacy to use after surgery

Valium will be provided on the day of surgery.

**Pred-Moxi-Brom**  
Shake well before  
each use

**Artificial Tears**  
Preservative Free.  
no Brand preference.

You will use the **purple** cap drop until empty, minimum 1 week, then switch to **pink** cap drop continuing the taper regimen.

**WEEK 1**  
4x daily

**DAY of Surgery	DAY 2	DAY 3	DAY 4	DAY 5	DAY 6	DAY 7
Pred-Moxi-Brom	Pred-Moxi-Brom	Pred-Moxi-Brom	Pred-Moxi-Brom	Pred-Moxi-Brom	Pred-Moxi-Brom	Pred-Moxi-Brom
4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	4 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

## Tears Hourly

**WEEK 2**  
3x daily

DAY 8	DAY 9	DAY 10	DAY 11	DAY 12	DAY 13	DAY 14
Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone
3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	3 times per day <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>

## Tears As Needed

**WEEK 3**  
2x daily

DAY 15	DAY 16	DAY 17	DAY 18	DAY 19	DAY 20	DAY 21
Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone
2 times per day <input type="checkbox"/> <input type="checkbox"/>	2 times per day <input type="checkbox"/> <input type="checkbox"/>	2 times per day <input type="checkbox"/> <input type="checkbox"/>	2 times per day <input type="checkbox"/> <input type="checkbox"/>	2 times per day <input type="checkbox"/> <input type="checkbox"/>	2 times per day <input type="checkbox"/> <input type="checkbox"/>	2 times per day <input type="checkbox"/> <input type="checkbox"/>

## Tears As Needed

**WEEK 4**  
1x daily

DAY 22	DAY 23	DAY 24	DAY 25	DAY 26	DAY 27	DAY 28
Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone	Prednisolone
1 time per day <input type="checkbox"/>	1 time per day <input type="checkbox"/>	1 time per day <input type="checkbox"/>	1 time per day <input type="checkbox"/>	1 time per day <input type="checkbox"/>	1 time per day <input type="checkbox"/>	1 time per day <input type="checkbox"/>

## Tears As Needed

# LASER VISION PLAN OPTIONS

## Standard Enhancement Plan

Includes:

- \* All-Laser LASIK or PRK.
- \* Enhancements for one year.

*\*Please check your price sheet for more information.*

## Extended Enhancement Plan

Includes:

- \* All-Laser LASIK or PRK.
  - \* Enhancements needed in the future.
- You must have an annual exam to keep coverage valid.

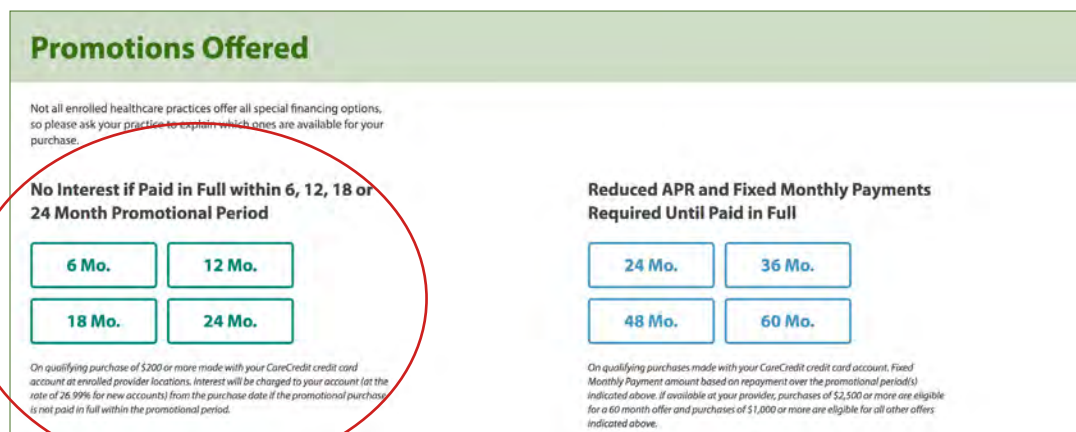
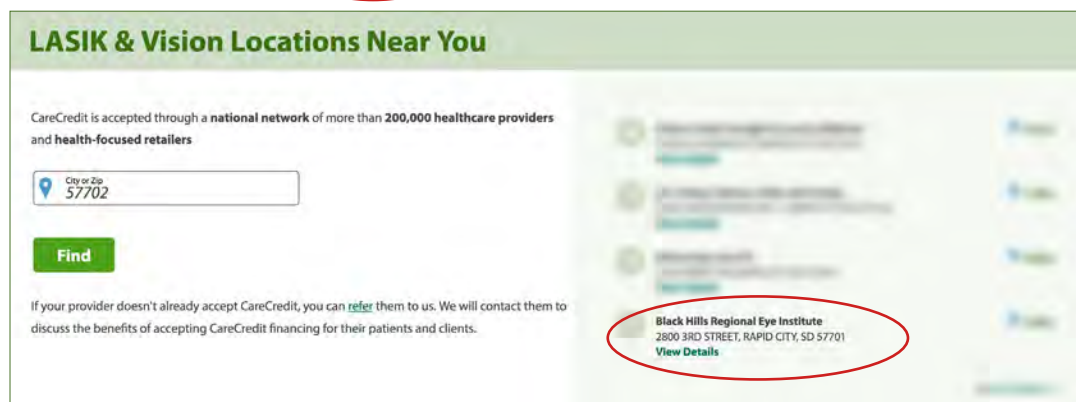
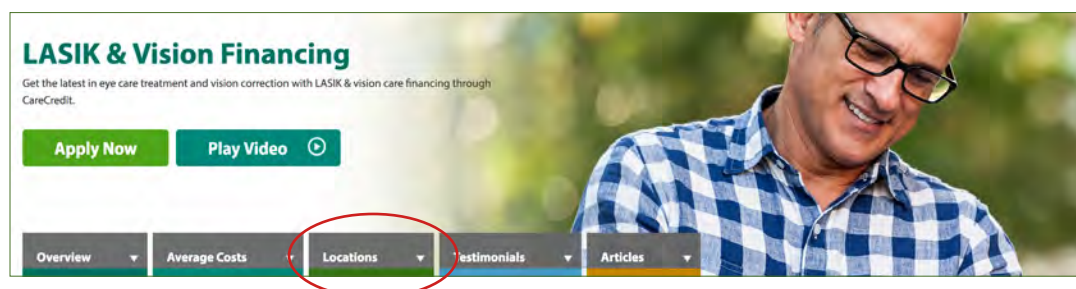
# FINANCING

The Eye Institute utilizes Care Credit to provide interest deferred payment options for up to 24 months..



With Care Credit, LASIK can be less than \$100 a month per eye. Visit [www.carecredit.com/lasik](http://www.carecredit.com/lasik) for more information.

**Flex Spending.** LASIK is a qualified expense for Flex or Health Savings Plans.





## Customer Review

### First Thoughts After LASIK Surgery...

“ I feel like a ROCKSTAR.  
Surprised I can see  
so well so soon  
~ Erica A ”



## Customer Review

### First Thoughts After PRK Surgery...

“ The process was smooth; the staff is knowledgeable and very helpful. I really liked Dr. Schirber he answered all of my questions honestly, and when it came to surgery, I knew what going on and what to expect the whole time. I wish I would have had this done five years ago. It's Awesome! ~ Andy W. ”



## Customer Review

“ I had a great experience!  
From my preop appointment to the day after surgery, everything was great! The staff is very knowledgeable and friendly.  
I would 100% recommend BHREI for any and all eye care!  
~ Kimberly ”



## Customer Review

“ I had a good experience there.  
I did laser surgery and was out in about 30 minutes.  
The doctor and her assistant explained everything.  
~ Cindy ”



## Customer Review

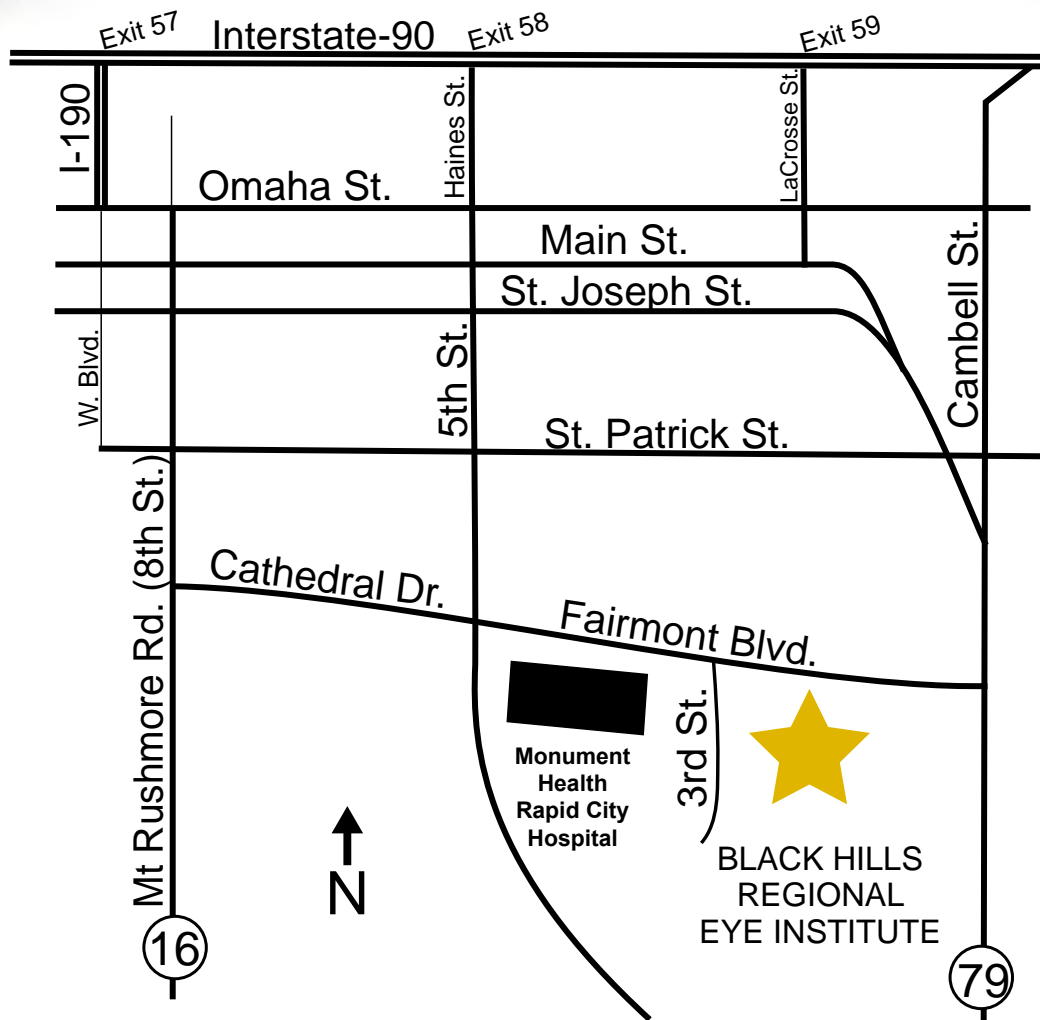
“ Friendly! Efficient! Attentive!  
Caring! I'm the 3rd family member to get lasik there in 3 years, recommend and encourage people to get it done and to get it done at the BHREI!!  
~ Paige ”



## Customer Review

“ It was a good experience.  
The staff and doctors were all very friendly and open to discuss anything.  
Very comfortable and professional experience  
~ Jesse ”





**We also offer Laser Vision Consultations at our Gillette, WY clinic:  
3100 West Lakeway, Suite 2 • (307) 686-0883**

