



Consumer's Guide to Choosing Your Refractive Surgeon

Flaum Eye Institute at the University of Rochester
Refractive Surgical Center

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There are many things to consider when looking for a doctor to perform your refractive surgery. You can open the newspaper any day and see ads for many surgeons and surgical centers. Some advertise low fees, some advertise numbers of surgeries performed. The choice of refractive surgery may be one of the most important decisions you may make in your life. You owe it to yourself to make your decision based on fact and logic, not dollar cost. Despite what the advertising might want you to believe, there is a huge difference in quality of surgery between different surgeons. We are fortunate to have one of the world's best refractive surgeons right here in Rochester - Dr. Scott MacRae.

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Things to carefully look for when choosing a refractive surgeon and refractive surgery center:

❑ A fellowship-trained corneal specialist with years of experience performing refractive surgery. Look for a surgeon who is involved in developing tomorrow's technologies, who lectures internationally, who teaches other surgeons and who is called upon to see other surgeon's problem patients. Not everyone can be "the first" or the "most experienced". Carefully investigate your surgeon's background.

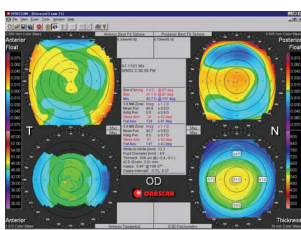
Dr. Scott MacRae is one of the most experienced and respected refractive surgeons in the world. He has over twenty five years experience as a cornea specialist, fifteen years of experience having limited his practice to refractive surgery, and has performed over 15,000 refractive surgical procedures. He has written two texts on customized refractive surgery, publishes regularly in the scientific literature, regularly lectures around the world and has served as a senior editor of one of the world's most respected refractive surgery professional journals.



- ❑ A complete and thorough eye and general health history including a discussion of your personal visual needs and desires.

Every patient's expectation of refractive surgery is different. A primary goal of the Flaum Eye Institute Refractive Surgery Center team is to understand what you want from refractive surgery and if that expectation is realistic. We look at and listen very carefully to your individual visual needs. An assessment of your overall health is just as important. Certain systemic medical conditions such as uncontrolled diabetes and severe rheumatoid arthritis can make refractive surgery an unacceptable risk.

- ❑ An analysis of corneal architecture including corneal topography and Orbscan II corneal analysis that creates color-coded maps of the front and back surface shape of the cornea as well as surface power and thickness looking for any abnormalities.



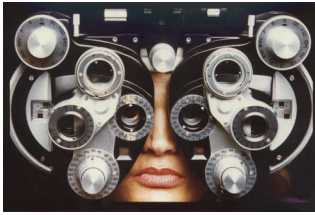
The basic concept of refractive surgery is to change the shape of your cornea to change the focusing power of your eye. Therefore, a full understanding of the shape of your cornea is vital to determining if refractive surgery is safe for you. The doctors at our Refractive Surgery Center feel that the Orbscan is an essential tool in assessing corneal shape and health. If we have any question about your corneal shape, we will cross-check it with another corneal topography system.

- ❑ Wavefront sensing, such as Technolas Perfect Vision's Zywave, being used to analyze your prescription and all the optical aberrations of your eyes to determine the best treatment options for you.

Wavefront sensing is revolutionizing the field of refractive surgery and it was invented right here at the University of Rochester's Center for Visual Science. The clinicians and scientists at University of Rochester have been key participants in its development and advancement. The team at Flaum Eye Institute Refractive Surgery Center uses wavefront sensing to assess the subtle optical quality of your visual system. If it is determined that you are not a good fit for conventional refractive surgery, you might be a candidate for Zyoptix Customized Ablation, also developed with the help of the Flaum Eye Institute Refractive Surgery Center team.



- ❑ A careful analysis of your nearsightedness, farsightedness and/or astigmatism. For completeness, this should be done before and after dilating drops are placed in your eyes. Some patient's prescription will differ after the dilating drops temporarily "freeze" your eye's natural focusing mechanism. These two measurements should then be compared to the "no questions asked" measurement from the Zywave wavefront sensor to determine your prescription before designing your treatment plan.



Completely understanding every detail of your prescription is vital to proper treatment. The team at the Refractive Surgery Center will analyze your nearsightedness or farsightedness in three different ways. The amount and orientation of your astigmatism will be analyzed up to six different ways. The importance of this attention to detail cannot be understated when it comes to permanent surgical change of your eyes.

- Exact measurements of the thickness of your cornea using an instrument known as an ultrasonic pachymeter to determine if you have enough corneal tissue to be safely treated.

In order to change the shape of the cornea to correct vision, the excimer laser removes tissue from the eye. The higher the prescription, the more tissue removed. A precise measurement of corneal thickness will allow the doctors at Flaum Eye Institute Refractive Surgery Center to assess which refractive surgical procedure might be safest for you.

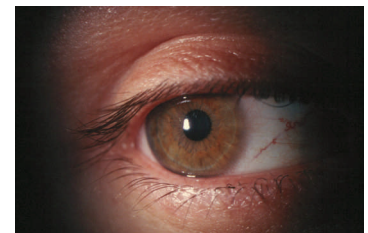
- Multiple computerized measurements of your pupil size under bright and dim light conditions to help assure safety and avoid potential night vision problems.



People who have very large pupils may be at risk for night vision problems after refractive surgery. The Refractive Surgery Center team will measure your pupil size precisely several different ways including with the Procyon Pupillometer. These test will help determine if you can be treated in a way to reduce the risk of seeing glare, starbursts and halos at night.

- A complete evaluation of your eye health from the front of the eye to the back, looking for any pre-existing conditions such as dry eye, glaucoma or cataracts that might make treatment inadvisable.

We are comfortable saying that refractive surgery doesn't appear to increase your risk for cataracts, glaucoma or retinal disease nor would it prevent you from being treated for any disease that might develop later in life. That being said, the safest patients for refractive surgery are patients with healthy eyes. During the pre-operative evaluation, we'll test for a wide range of eye conditions to determine if treatment is safe for you. If treatment is not appropriate, we'll tell you, without any hesitation.



❑ The latest generation flying spot excimer laser technology, such as the Technolas Zyoportix 217z 100 excimer laser, that uses iris image recognition eye tracking technology to adjust for subtle eye movements during treatment. More accurate alignment of the treatment results in better vision. The laser should be calibrated prior to each patient treatment, not just once or twice a day.

FDA clinical data shows that the Technolas Zyoportix 217z 100 excimer laser is the most accurate laser available for refractive surgery. The laser itself cannot treat your eye however. It requires an experienced surgeon, like Dr. Scott MacRae, to program your correction and make the decisions required to customize the treatment to your specific needs. Excimer lasers require a great deal of calibration to increase the precision of your treatment. Some doctors calibrate their lasers only once per day, after turning them on in the morning. The surgical team calibrates Flaum Eye Institute Refractive Surgery Center's laser before every single patient treated.



❑ Use of a state-of-the-art instruments to create the corneal flap with LASIK including options for traditional microkeratome created flaps and all-laser femtosecond laser created flaps for better accuracy and patient safety.



The microkeratome is the precise, bladed device used to create a flap of tissue at the start of the LASIK procedure. When used by a skilled surgeon, it is a very safe way to perform LASIK surgery. Dr. MacRae has performed over 10,000 surgeries with this device. With certain shape or thickness corneas however, there is an increased degree of risk that we feel is unacceptable when using the microkeratome. Our Ziemer LDV Femtosecond Laser for blade-free flap creation provides better control of flap design and thickness increasing safety for our patients. During your pre-operative examination, we will discuss which technique for flap creation is safest for you and your eyes. Having this option makes your surgery safer and more precise.

❑ A practice dedicated to both the advancement of refractive surgery and your personal well being. The doctors should not be afraid to say “no” if refractive surgery is not safe for you and should be motivated more by the safety and long-term health of your eyes than by the financial bottom line.

The doctors at our Refractive Surgery Center tell patients that they should not have refractive surgery for any of a long list of reasons. They advise upwards of 20% of patients who are seen for evaluation not to have surgery. Each of us only has one pair of eyes and they need to last us a lifetime. Your visual welfare and the safety of your eyes is paramount to the team at Flaum Eye Institute Refractive Surgery Center.

❑ A qualified and highly trained patient education staff who will leave no question unanswered and no concern unaddressed.

The mission of the Flaum Eye Institute Refractive Surgery Center team is to provide you with the highest quality care possible and the cornerstone to that commitment is to fully educate you so that you can make the right decision about refractive surgery. No matter where you are in your refractive surgical journey, everyone at the Refractive Surgery Center will be available to address your concerns and answer your questions.



❑ Be wary of sliding scale professional fees for your surgery. It takes the same amount of time to properly care for a patient with a light prescription as it does for one with a complex prescription. Know exactly what is included in your surgical fee and if there are any hidden fees or “add-on” charges.

At the Flaum Eye Institute Refractive Surgery Center, our surgical fees are very straightforward. The fee for Zyoptix customized ablation surgery is \$2400 per eye and for conventional surgery, the fee is \$1900 per eye . If the doctors determine that All-Laser LASIK is the safest for you, there is an additional fee of \$300 per eye. Our surgical fee covers your follow-up care for one year and the eye medications needed after treatment. It covers any necessary re-treatments to maximize your vision for two years after surgery. You won't be offered service contracts or find any additional fees to confuse your decision. Understanding that this is a large investment, we has multiple financing options available through Chase HealthAdvantage.

The bottom line is that you only have one pair of eyes and your vision is your most precious sense. It is important to carefully consider your options when it comes to refractive surgery: Your surgeon; The philosophy of the practice; The quality of the support staff. All of these are very important decisions for what is truly, “the visual event of a lifetime”.

Please feel free to contact us at 585-273-2020 or via email at strongvision@urmc.rochester.edu you have specific questions or require any additional information.

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