

LASER CATARACT SURGERY





LASER CATARACT SURGERY AT THE BOCHNER EYE INSTITUTE

For over 85 years, the doctors at Bochner Eye Institute have been committed to providing the most advanced, effective, and proven technology and surgical techniques to help people see clearly, and naturally. This tradition continues as they became the first centre in Canada to perform laser cataract surgery with the Catalys™ Precision Laser System in February of 2012.

Traditional cataract surgery is considered to be one of the safest and most successful procedures performed in medicine today even though many of the steps are performed manually, with a blade or needle. Now, with the technological breakthrough of the Catalys femtosecond laser, many of the more challenging steps can be automated, adding unprecedented levels of precision and accuracy to the entire cataract procedure, while potentially making cataract surgery even safer and improving visual outcomes.

Using the laser's 3D imaging, which is more accurate than an MRI, Dr. Raymond Stein plans and customizes the entire procedure to each patient's unique optical characteristics. This customization is especially important when patients elect to have a premium lens implant and astigmatism correction to increase the likelihood of seeing well without glasses following surgery.



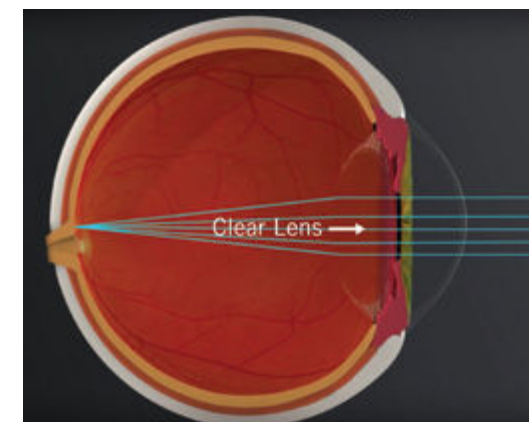
If your vision is getting cloudy, if you are losing your colour perception, if you are having trouble reading or with your night vision, you may be experiencing the early stages of cataracts. The natural lens inside the eye is normally transparent in our youth. As we age, our clear lenses inevitably become cloudy. A cataract is the clouding of this natural lens. Cataracts are a normal part of the aging process. There is no medical treatment

to reverse or prevent the development of cataracts. Once they form, the only way to see clearly again is to have them removed and replaced with an artificial lens, known as an intraocular lens.

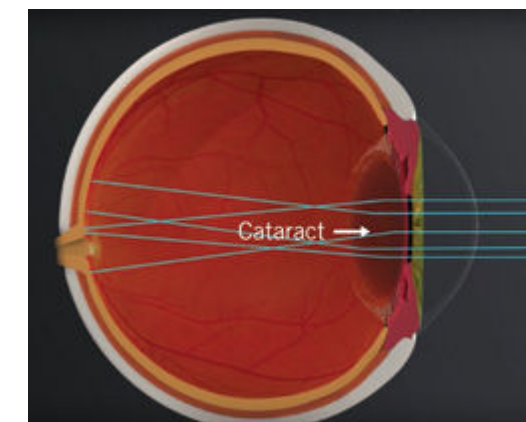
WHAT IS A CATARACT?

In general, when you are bothered by your vision during your daily activities, it is time to think about cataract surgery. Cataracts will typically not damage the eye while growing, so there is no need to rush into the surgery.

You can decide when the time is right for you. Although it is surgery, the risks with modern cataract surgery are very low. You should not be anxious or afraid of the procedure. Laser cataract surgery has improved the precision and our outcomes. Exciting advances in intraocular lenses now provide our patients with a variety of options as to how they can choose to see after cataract surgery.



NATURAL CLEAR LENS



NATURAL LENS WITH CATARACT

THE LASER CATARACT PROCEDURE

At the Bochner Eye Institute, all patients can choose between traditional cataract surgery or laser cataract surgery with a Premium IOL and astigmatism control or reduction.

Laser cataract surgery is performed at the Bochner Eye Institute, the first government approved independent facility in Ontario devoted exclusively to eye surgery. You should expect to be in the surgical suite for approximately 20 minutes.

In addition to using the Catalys femtosecond laser to perform many of the surgical steps traditionally performed by hand, we use the best and latest innovations in cataract surgery, such as “drops only” anesthesia (no injections), sutureless micro-incisions and foldable lens implants.

To begin, Dr. Stein corrects astigmatism with the laser by creating precise incisions in the cornea. This has been found to be more accurate than using a hand-held blade with the Traditional technique.

The laser then creates a perfectly round opening (capsulorhexis) in the thin capsular membrane that surrounds the cataract, which studies have shown to be 99% more accurate than manual capsulorhexi. This contributes to better centration of the intraocular lens which can result in better quality of vision without glasses.

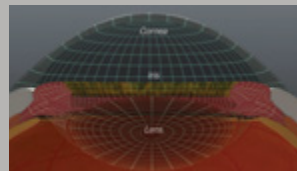
In order to gently remove the cataract, the laser is used to fragment or break the cataract into microscopic pieces. This allows Dr. Stein to use 96% less ultrasound energy removing the cataract, which can lead to faster visual recovery and less trauma to the delicate structures in the eye.



THE SIX STEPS OF LASER CATARACT SURGERY

STEP ONE

Precise mapping of the cornea, iris and lens.



STEP TWO

Precise laser astigmatism incisions.



STEP THREE

Perfectly round opening in the cataract.



STEP FOUR

Laser fragmentation (softening) of the lens.



STEP FIVE

Gentle removal of the softened lens.



STEP SIX

Insertion and placement of the IOL.

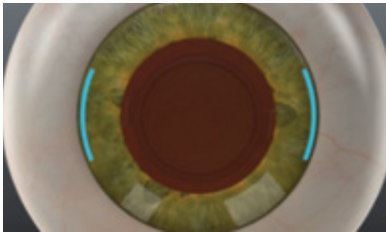


ASTIGMATISM CORRECTION



Manual Blade Incision

vs.



Laser Incision

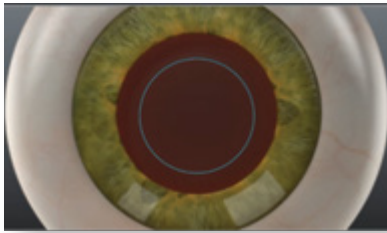
The laser technique allows for a more precise correction of astigmatism with corneal incisions made at an exact depth, location, and length. Correction of astigmatism allows for a greater chance of clear vision without glasses.

CENTRAL OPENING IN THE CATARACT



Manual Capsulorhexis

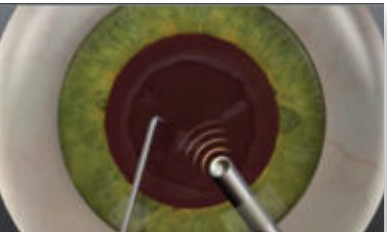
vs.



Laser Capsulorhexis

Unlike with a manual technique, the laser performs a perfectly centered and perfectly round central opening on the surface of the cataract. It is through this opening that the cataract is removed and the implant inserted. The fact that the laser performs this step in less than 2 seconds eliminates any mishap that could occur if the patient were to move during the procedure.

FRAGMENTATION OF THE CATARACT



Manual Lens Division

vs.



Laser Lens Division

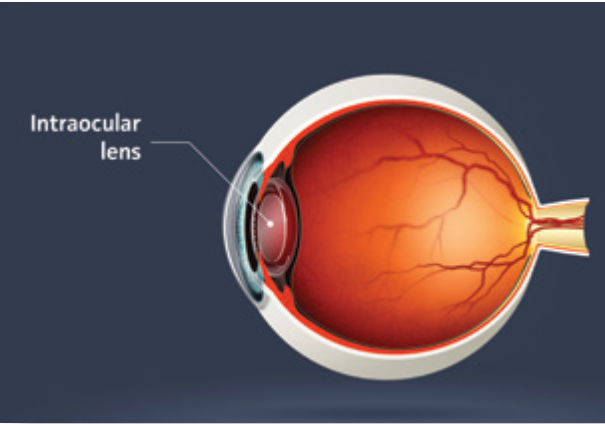
The laser is able to soften the cataract by dividing the lens into very small pieces prior to entering the eye with instruments. This allows for a more gentle removal of the cataract leading to less trauma to the delicate internal structures of the eye. This may be the most significant advantage the laser offers.

INTRAOCULAR LENSES FOR CATARACT

Intraocular lenses, or IOLs, are soft, foldable lenses that are inserted into the eye in order to replace the natural lens that developed the cataract.

IOLs are available to provide patients with a wide range of visual clarity and focusing capability. Our goal is to give you the best overall quality of postoperative vision with the lens that is best suited for your eye.

Standard Monofocal IOLs (OHIP covered) will usually result in the need for glasses for both distance and near vision. Premium Aspheric Monofocal IOLs provide a single zone of clear focus and are usually implanted to provide excellent distance vision when patients have a low level of astigmatism. These Aspheric IOLs can reduce visual aberrations resulting in enhanced quality of vision during the day and at night.



Premium Toric IOLs are used to reduce or control astigmatism in patients that have higher degrees of astigmatism. There are also a number of Premium Multifocal or Extended-Range of Focus IOLs that can provide a broad range of vision from near to intermediate and to distance, with minimal, if any, need for glasses or contact lenses.



The decision as to what type of IOL you want is an important decision that will affect how you see the rest of your life. Therefore, it is important that you understand the surgical option of laser versus traditional cataract surgery and the various IOLs that we offer to help you achieve the visual outcome you desire.



**Monofocal IOL with
Astigmatism**



**Monofocal IOL with
Astigmatism Corrected**



**Premium IOL with Broad
Range of Vision**

CHOOSING YOUR LENS

How do you decide which lens will work best for you? Here are some guidelines we use.

If you want the advanced technique of Laser Cataract Surgery, Dr Stein will use the laser to reduce your astigmatism. You will need to decide whether you prefer best distance vision without glasses and use a simple pair of reading glasses (Diamond Package) or elect to achieve both distance and reading vision without glasses (Diamond Plus Package).

If you choose Traditional Cataract Surgery, you need to decide whether you want distance vision without glasses and use reading glasses (Silver Package - low astigmatism level, or Platinum Package- higher astigmatism level), or see both distance and near without the use of glasses (Gold Package).

Almost everyone has some amount of astigmatism. Astigmatism is present when the cornea, or outer window of the eye, is more curved in one direction than the other, like the back of a spoon. Astigmatism blurs your vision at all distances and is often present along with nearsightedness or farsightedness.

At Bochner Eye Institute, we use either the Catalys laser, a "Toric" IOL with built-in astigmatism correction, or specially designed blades to produce corneal relaxing incisions. For patients with astigmatism, our laser provides the most precise and predictable astigmatism treatment.

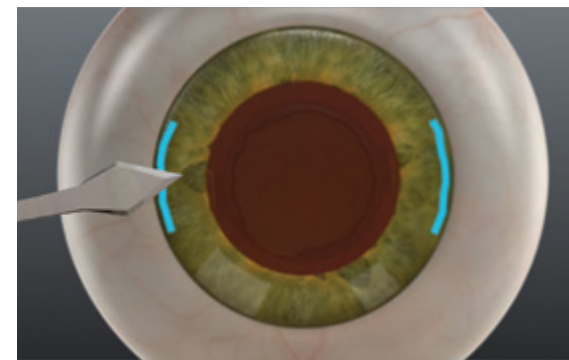
CORRECTING ASTIGMATISM



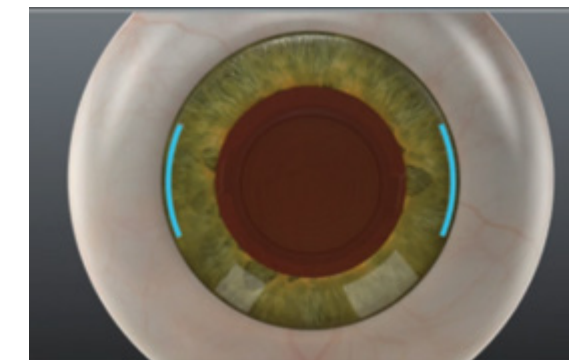
**After Cataract Surgery Without
Astigmatism Corrected**



**After Cataract Surgery With
Astigmatism Corrected**



**Astigmatism Corrected With
A Blade**



Astigmatism Corrected With Laser

WHAT TO EXPECT

AFTER YOUR LASER CATARACT SURGERY

You will be released soon after the procedure to go home and relax. Your eye will not be patched and you are likely to see improvement in your vision in a few days. Complete visual recovery varies from patient to patient, but most patients return to their regular activities within a day or two. If cataracts are present in both eyes, the second procedure may be scheduled within days or weeks of the first eye.

Serious complications are extremely rare, but because it is surgery, there are potential risks involved. The most serious risk is that of an intraocular infection. Fortunately, Dr. Stein has not experienced an infection in over 25 years. The reported risk in the literature is 1 in 10,000. There is a risk of swelling of the back of the eye referred to as macular edema. This risk is 1 in 100 procedures and typically is resolved with drops. There is a risk that the entire lens cannot be removed in one operation and that further surgery is required. The incidence for Dr. Stein is 1 in 10,000 procedures. Our counselors at Bochner Eye Institute will provide you with additional information about the risks associated with cataract surgery and answer any of the questions you may have. We appreciate your trust and confidence in choosing Bochner Eye Institute and consider it an honor and a privilege to be entrusted with your eye care.



ADVANCED VISION PACKAGE

Freedom from glasses for most of your daily activities.



Diamond Plus or Gold Packages

CUSTOM VISION PACKAGE

Good distance vision but need glasses for near and immediate.



Diamond, Platinum or Silver Packages

BASIC VISION PACKAGE

Requires glasses all the time if you have astigmatism.



Bronze Package

VISION RESTORATION OPTIONS

The doctors at Bochner Eye Institute believe laser cataract surgery is the most significant advancement in the past 50 years. Yet we also realize not everyone can afford to take advantage of its benefits. We offer a wide variety of vision restoration packages. The most important decision is if you want to have laser or traditional cataract surgery. The second most important decision is the type of lens implant you would like. Dr. Stein will make a recommendation based on the results of your eye examination and the unique characteristics of your eye. Your primary vision choices are simulated here, along with their associated vision restoration package(s).

WHAT OUR PATIENTS ARE SAYING.

5
Staff

5
Punctuality

5
Helpfulness

5
Knowledge



Dr. Stein operated on my mom's cataracts. He suggested a multi-focal implants for my mom. Now my mom is enjoying an improved vision day by day without eyeglasses! Thanks to Dr. Stein and his team for the professional advice and services we received!

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Staff

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Punctuality

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Helpfulness

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Knowledge



I have worn glasses since childhood, and was told that I was almost legally blind. When cataracts developed, my family doctor recommended the Bochner Institute. It meant going out of town, but after hearing of experiences of several friends locally, I decided to go for a consult. Though the office was busy, each individual I dealt with listened to my concerns, and thoroughly explained procedures and care. My husband also was very impressed with the procedures used and although a bit expensive on our budget, he insisted I go ahead with having the surgery done in Toronto. (He said, "I'm worth it") It was the best decision and I couldn't be happier. Everything was step by step explained before, and throughout the procedure. I experienced no pain what so ever. After the first surgery went so well, I scheduled one for the other cataract rather than wait longer. For the first time in my life I open my eyes and see without glasses or contacts to insert. I can read and see distances beautifully. I am very grateful for the skills Dr. Stein has and the decision made to put my eyes in his care. Before going to his office, I was fearful and apprehensive, though realized the surgery was needed. I decided to write this so others who may feel like I did before my surgery, would not be hesitant to do so. My sincere and deepest thanks to Dr. Stein and his staff. Seeing so well now amazes me every day.... thank you :)

5
Staff

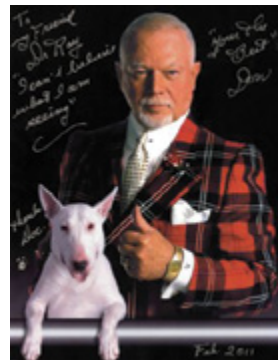
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Punctuality

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Helpfulness

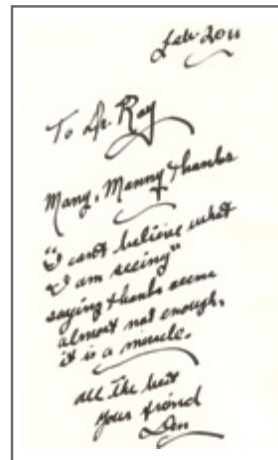
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Knowledge



I had cataract surgery with Dr. Stein and I could not be happier with the results. My one eye is a lazy eye, and I was very scared to do surgery on my one good eye. Dr. Stein and staff went to great lengths to reassure me and make me feel comfortable. The results are fantastic! I don't need distance glasses anymore! All I need is a pair of dollar store glasses to read.



Patients like Don Cherry have great things to say about their surgery at the Bochner.



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Staff

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Punctuality

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Helpfulness

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Knowledge



I can recommend Dr. Raymond Stein to anyone requiring cataract surgery. Dr. Stein and his team at the Bochner Eye Institute did an outstanding job of giving me 20/20 vision in my left eye. For the first time in 15 years, I am able to function without glasses. It has been truly liberating. He and his team handled me in a most professional way. Cathy was very patient with all my questions and the process was totally painless and stress free. Dr. Stein employs the latest technology, allowing his patients to be up and running virtually as they leave the Bochner Institute building after the surgery. Thanks Dr. Stein.

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Staff

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Punctuality

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Helpfulness

5
Knowledge



I am not the best patient so when Dr. Raymond Stein booked me for my first cataract operation, I was very apprehensive. There was absolutely no pain or discomfort. Yesterday I had the second surgery, with the same results-didn't even take a Tylenol! I would not hesitate to recommend Dr. R. Stein and the Bochner Institute. In my opinion, they are absolutely the best!!!! Edith Weiss

5
Staff

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Punctuality

5
Helpfulness

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Knowledge



Received implants for both eyes, replacing my cataract-ridden natural lenses. I have severe myopia, and was nervous the surgery might be damaging to my retinas. Dr. Stein & colleagues was caring and attentive, and gave me the special attention and reassurances I needed. After the two laser-assisted surgeries and implants, I now see better than I have in years. The staff is very professional, at both Scarborough & Toronto locations. The Bochner institute has some of the most qualified and experienced eye doctors in Canada. I recommend Dr. Stein & colleagues without hesitation.

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Staff

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Punctuality

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Helpfulness

5
Knowledge



I had refractive lens exchange surgery in order to help reduce serious dizziness issues caused, in part, by wearing corrective glasses. My experience, from start to finish, was excellent. All my upfront questions and concerns were clearly answered and I was given a detailed step by step outline of the process. My vision was 20/20 within two days and I no longer need any corrective glasses and my dizziness issues have significantly improved. I would definitely recommend Dr. Stein and the Bochner Eye Institute.

DR. RAYMOND STEIN, MD, FRCSC



Medical Director, Bochner Eye Institute,
Associate Professor of Ophthalmology, University of Toronto

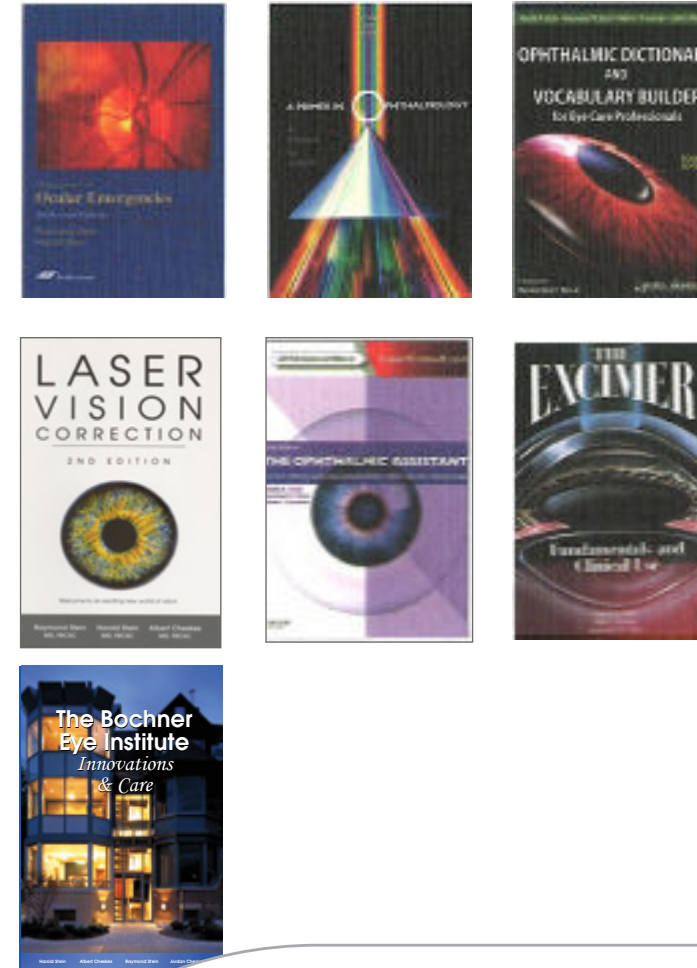
"It is a privilege to work at the Bochner Eye Institute, founded by my grandfather, Dr. Maxwell Bochner, in 1929. I think he would be both amazed and proud of the advanced technology and surgical techniques we use, and more importantly, gratified with our continued devotion and commitment to patient care that he started over 85 years ago."

Dr. Raymond Stein serves as Medical Director of the Bochner Eye Institute and was the first surgeon in Canada to perform Laser Cataract Surgery with the Catalys Precision Laser. He has performed over 100,000 cataract and laser surgical procedures, published numerous books, scientific papers, and magazine articles on the latest techniques of vision correction.

Dr. Stein was designated a Benjamin Franklin scholar at the University of Pennsylvania, graduated from the University of Toronto Medical School and completed his ophthalmology residency at the Mayo Clinic in Minnesota. He was chosen for a fellowship in Corneal and External Diseases at Wills Eye Hospital in Philadelphia, and in 1987 became a Fellow of the Royal College of Surgeons of Canada and the American Board of Ophthalmology. He is also Corneal Consultant at Mount Sinai Hospital in Toronto, Associate Professor of Ophthalmology at the University of Toronto, Past Chief of Ophthalmology at the Scarborough Hospital, and Past President of the Canadian Society of Cataract & Refractive Surgery. Dr. Stein is licensed to practice ophthalmology in Ontario, New York, Arizona and Minnesota.

Dr. Stein has lectured to his professional colleagues internationally and received honour awards from organizations including the American Academy of Ophthalmology, the International Intraocular Implant Club, and the Contact Lens Association of Ophthalmologists.

SOME OF THE BOOKS WRITTEN OR CO-AUTHOURED BY DR. RAYMOND STEIN



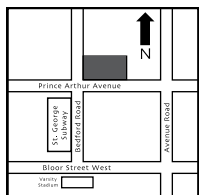
SCIENTIFIC ARTICLES ON CATARACT SURGERY BY DR. RAYMOND STEIN





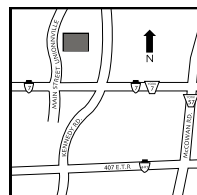
THE BOCHNER EYE INSTITUTE

Since 1929



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