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Cincinnati Eye Institute

A Vision for the Future of Eye Care

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A Vision for the Future of Eye Care

By Leigh Wilkins, Senior Writer

Situated attractively on 10 acres in Blue Ash, the large, brick building at 1945 CEI Drive is more than a new location for Cincinnati Eye Institute. In many ways, it is a symbol of the medical practice's commitment to the ophthalmic health of people in our region.

This 120,000-square-foot facility, which opened in 2006, is the new home for CEI's extensive, state-of-the-art services, as well as its administrative offices. Virtually all of CEI's 50 doctors see patients at the Blue Ash facility, providing everything from urgent care to cornea transplantation, cataract surgery to ophthalmic plastic reconstructive surgery, and glaucoma procedures to LASIK. The facility consolidates all three of CEI's former Montgomery Road locations, with extensive parking, meeting facilities and other amenities. It houses no paper charts, thanks to CEI's decision to convert hundreds of thousands of patient records into digital form.

"This new building allows us to expand our capacity in a number of ways, as well as anticipate the future medical needs of our region," says Clyde Bell, CEI's President and Chief Financial Officer. "Doctors in all specialty areas, along with administrative and support staff, were part of the planning process for this \$20 million project. We've created a place where patients feel well cared for, and where our employees love to work."

One of the most exciting features of the new building is the Ambulatory Surgery Center. This year, physicians will perform more than 9,000 eye surgeries in the center's six surgical suites, which are equipped with the latest generation of medical equipment for all ophthalmic specialties, including those requiring general anesthesia.

"A great benefit of this new center is that surgeons can perform multiple procedures for patients whose complex conditions require it," says Todd Albertz, Director of Surgical Services at CEI. "For instance, one physician might perform glaucoma surgery, then make way for another colleague to perform retina surgery on the same patient — on the same day. Combination cases like these benefit patient satisfaction and can improve outcomes."

A HISTORY OF EXCELLENCE IN PATIENT CARE

The largest private ophthalmology practice in the country, CEI was founded in 1945 by Morris Osher, M.D., whose son, Robert H.



Osher, M.D., helped grow the practice into a world-class center of ophthalmic excellence. Today, a board of directors composed of nine physicians and executive administration governs CEI.

"CEI has a 50-year tradition of providing the highest level of medical and surgical eye care to enhance the quality of patients' lives," says Michael R. Petersen, M.D., Ph.D., a vitreoretinal specialist and Chairman of the CEI Board of Directors. "In addition, virtually all of our doctors participate in research studies, publish extensively and train medical students and residents as well."

With so much medical expertise, clinical activity and research taking place under one roof, CEI patients are the ultimate beneficiaries. They come to CEI from all over the world to receive care in ophthalmologic specialties that include comprehensive ophthalmol-



PHOTOS BY DANIEL DAVENPORT AND KANETO FUKUHARA

ogy; urgent care; vitreoretinal diseases and surgery; laser vision correction (LASIK) surgery; cornea and external disease/refractive surgery; cataract surgery/anterior segment reconstruction; glaucoma and ophthalmic plastic reconstructive surgery; and orbital and cosmetic surgery.

COMPREHENSIVE OPHTHALMOLOGY

CEI's 14 comprehensive ophthalmologists offer a wide range of services at the Blue Ash location and at several offices located throughout the tri-state area. Comprehensive ophthalmologists' most vital role is that of helping patients access eye care at every stage of the process. They perform comprehensive eye examinations and surgical evaluations for cataract surgery, as well as treat secondary cataracts, eye infections and blepharitis (inflammation of the eyelids). When needed, comprehensive ophthalmologists refer patients to other CEI specialists for surgery or other forms of treatment.

URGENT CARE

Many patients come to CEI through its Urgent Care Center, which is open Monday through Friday from 8:30 a.m. to 5 p.m. and on Saturday from 8:30 a.m. to noon. At the Blue Ash location, doctors diagnose and treat patients with all types of eye conditions, including ocular trauma, conjunctivitis ("pinkeye"), sudden blind spots, halos, flashes of light and foreign bodies in the eye, among others. An emergency ophthalmologist is on call 24 hours a day, seven days a week.



PHOTOS BY DANIEL DAVENPORT AND KANETO FUKUHARA

In order to provide rapid diagnosis and treatment, emergency ophthalmologists can take advantage of all the technology available at CEI, as well as the expertise of specialists located in the same building. The center offers a distinct advantage for patients experiencing acute eye problems, because it is devoted exclusively to ophthalmic care.

VITREORETINAL DISEASES AND SURGERY

The retina is the delicate, light-sensitive layer of tissue located at the back of the eye that sends visual images to the brain. Located near the center of the retina is the macula, which is responsible for detailed, central vision. Adhering to the surface of the retina is the vitreous, a thick, gel-like substance that fills the interior two-thirds of the eye. Sophisticated technology and new pharmaceutical agents allow vitreoretinal specialists to diagnose, manage and surgically treat diseases of these sensitive parts of the eye more effectively than ever before.

Vitreoretinal specialists care for patients experiencing retinal detachment; hemorrhages, tears and holes; diabetic retinopathy; vitreous detachment; macular holes and puckers; and age-related macular degeneration, or ARMD. They also evaluate blind spots, flashes and floaters.

LASER VISION CORRECTION SURGERY

CEI is an excellent option for patients who want laser vision correction, or LASIK, surgery, because of its track record for excellent visual outcomes. LASIK involves using a laser to reshape the cornea, the transparent front part of the eye that provides most of the eye's optical power. The surgery corrects refractive disorders, including nearsighted-



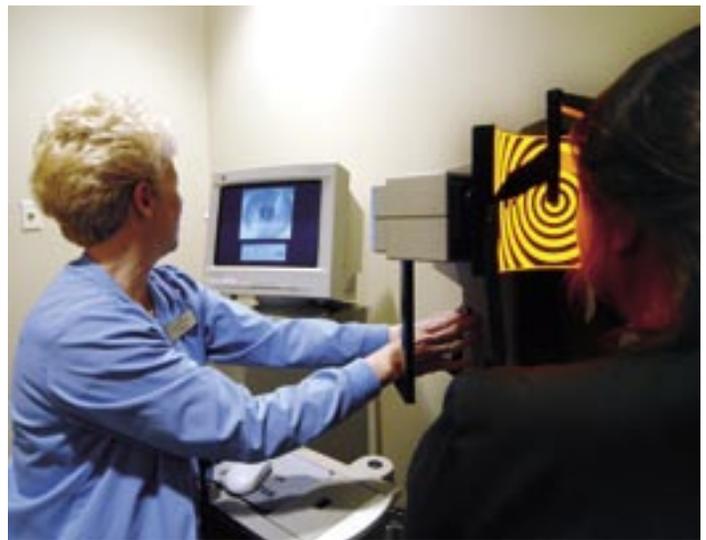
ness, farsightedness and astigmatism, allowing the retina to focus light properly.

LASIK surgeons at CEI utilize a number of advanced technologies. One example is the IntraLase Laser, now used in 95% of all refractive surgeries at CEI. IntraLase uses tiny pulses of laser light, a quadrillionth of a second each, to create the corneal flap, which the doctor folds back in order to perform the refractive surgery. It improves safety and allows the eye to heal faster than surgical methods using a keratome (or metal blade) to create the corneal flap.

CORNEA AND EXTERNAL DISEASE/REFRACTIVE SURGERY

Cornea and external disease/refractive surgery specialists at CEI provide advanced medical and surgical management of all conditions and disorders of the cornea, the transparent layer of tissue that covers the front of the eye. The cornea refracts light rays as they enter the eye onto the retina, allowing us to see clearly.

CEI doctors are available for consultation in the following areas: laser vision correction surgery; corneal transplantation; corneal dystrophy, in which the eye gradually loses endothelial cells; keratoconus, a thinning disorder of the cornea that causes distortion and reduced



vision; “dry eye” syndrome; and stem cell research.

CEI cornea and external disease specialists rely on sophisticated technologies such as WaveScan Optics, which offers a level of measurement that is 25 times more precise than the standard measurements used to determine an eyewear prescription.

CATARACT SURGERY/ANTERIOR SEGMENT RECONSTRUCTION

CEI physicians with specialized training in cataract surgery/anterior segment reconstruction treat cataracts as well as conditions, diseases and ocular trauma to the anterior chamber area of the eye. They are available for consultation in the following areas:

- Cataract and lens implantation surgery (including presbyopic- and



PHOTOS BY DANIEL DAVENPORT AND KANETO FUKUHARA

University of Cincinnati Connection Enhances Teaching and Research Efforts

The Department of Ophthalmology of the University of Cincinnati College of Medicine is the preeminent ophthalmic teaching and research center in the tri-state region. The expertise of the faculty, most of whom are members of Cincinnati Eye Institute, over the entire spectrum of ophthalmic subspecialties, combined with the resources of CEI, makes CEI/UC the regional center of choice of patients and health care providers for ophthalmic subspecialty care. The faculty members have diverse research interests, and their clinical and basic science investigations regularly yield findings and observations that advance the science and art of ophthalmology and lead to improved patient care. Their areas of particular expertise include cataract and anterior segment surgery, limbal stem cell transplantation surgery, oculoplastic surgery and oncology.

About one-quarter of CEI's members belong to the full-time faculty of the University of Cincinnati Department of Ophthalmology, while many others are volunteer faculty members. As such, they conduct research and spend considerable time training future ophthalmologists — medical students and residents, who also are taught at CEI's various locations, as part of their education.

“We value our relationship with ophthalmologists at the University of Cincinnati, because they are internationally respected doctors who uphold values about research and education that all CEI doctors share,” says Michael R. Petersen, M.D., Ph.D., a vitreoretinal specialist and Chairman of the CEI Board of Directors.



Aaron Young, Medical Student | Age: 27

Diagnosis: Traumatic Eye Injury

Aaron Young was working on his family's farm in Ohio when anhydrous ammonia was accidentally sprayed in his face. The liquid fertilizer scarred his corneas terribly and destroyed the stem cells of his ocular surface in both eyes. Aaron's sight was virtually gone.

Aaron underwent several eye surgeries, but no doctor believed that his sight could be restored. Two months into the process, however, Aaron's ophthalmologist referred him to Edward J. Holland, M.D., a cornea specialist at Cincinnati Eye Institute. "Dr. Holland said, 'We've seen worse, and we've fixed worse. We're going to help you,'" Aaron remembers. "In one day, everything changed for me."

Dr. Holland began to oversee Aaron's care, and later performed an ocular surface stem cell transplant and two subsequent cornea transplants. Aaron's once-perfect vision was restored, just in time for him to see his baby born. "That was a profound experience," says Aaron, who is now in medical school. He adds, "My wife, Hillary, and I named our son Holland."

"I had been given a diagnosis of no hope, and then, in one day, everything changed for me."



Anne Schuchart, Receptionist | Age: 75

Diagnosis: Cataracts

Even at 75, Anne Schuchart has no plans to slow down. Still working full time, and with two great-great grandchildren living nearby, she was used to being on the go. So when her eyesight began to deteriorate, making nighttime vision particularly difficult, she came to CEI for help.

Anne saw Robert J. Cionni, M.D., a cataract specialist at CEI, who recommended cataract surgery on both of her eyes with multifocal implants. She underwent the procedure and experienced a dramatic improvement. "Now, younger people at work ask me to read fine print for them," Anne says. "Some coworkers send people over to me to ask about the surgery. After we talk, they often have the surgery themselves."

Anne has been back to her fast-paced life for five years now. "I just can't give Dr. Cionni enough credit for how he helped me," she says.

"I have moved right along with my life. I drive at night, and it doesn't bother me at all."



Nancy Sellars, Legal Editor | Age: 73

Diagnosis: Retinal Edema, Diabetic Retinopathy

After experiencing two strokes in 2006, Nancy Sellars was learning to cope with many changes. But losing her vision was one of the most difficult. "My vision was fuzzy, and I didn't know how much it had been affected by the stroke," Nancy says. "I talked to my eye doctor about it, and he recommended I see Dr. Petersen."

Michael R. Petersen, M.D., Ph.D., a vitreoretinal disease specialist at CEI, diagnosed retinal edema and cataracts in both of Nancy's eyes. "Dr. Petersen helped me be relaxed and understand the surgery he was going to do," Nancy says. "His staff is very competent and organized. I think that allows Dr. Petersen to do more for people. Right now, I can read with both eyes. It's just amazing to me!"

"Right now, I can read with both eyes. It's just amazing to me!"



Frank Clark, Cable Communications Administrator | Age: 57

Diagnosis: Glaucoma

For a while, it looked as though glaucoma would interfere with the things Frank Clark enjoyed doing most: spending time with his 9-year-old son, riding his motorcycle and working out. Frank had been able to manage his glaucoma for years, but when the vision in one eye started to deteriorate, he was worried.

Frank saw Anup K. Khatana, M.D., a glaucoma and cataract specialist at CEI, who eventually inserted a shunt into Frank's eye to reduce the pressure. "Now, my vision is as good as it was before the surgery, and may improve more as time goes on," Frank says. "I am able to work out again, and get back on my bike and ride."

"This could have been a real downer, but the people who have been working with me at CEI made it a good experience."



Zach Chadwick | Age: 14

Diagnosis: A Rare Type of Retinitis Pigmentosa with Retinal Inflammation and Swelling

Zach Chadwick is one in a million, and so were the circumstances under which he met his CEI physician. At the age of 7, Zach had been diagnosed with a rare type of retinitis pigmentosa with retinal inflammation and swelling. So when Zach's mom, Robin, overheard the man sitting in front of her on a flight to Cincinnati say he was an ophthalmologist, she told him about Zach. "It turned out to be Dr. (Adam) Kaufman from CEI, and he was very interested in Zach's condition. He even examined Zach in his office that week," Robin says. Shortly afterward, Zach also began to receive care at CEI from Michael R. Petersen, M.D., Ph.D.

"If my prayers are answered, they'll find a cure for what I have," says Zach, now 14. "Otherwise, there's a pretty good chance I'm going to go blind." "Nobody can give us concrete answers, and that is very difficult," explains Robin. "What I value is that we are connected with doctors who listen to me and respond to what I'm saying."

"Communication with the doctors is very important, and they allow for a lot of communication."

— Robin Chadwick, Mother of CEI patient Zach Chadwick



Narendra Mehta, Retired Executive | Age: 64

Diagnosis: Retinal Hemorrhage, Cataracts

Narendra Mehta has benefited dramatically from the teamwork of two CEI physicians. A diabetic, he began dealing with serious eye complications from the disease in 2004, when the retina in his right eye hemorrhaged. Christopher D. Riemann, M.D., a vitreoretinal specialist, repaired the damage.

Just a few months later, the retina in Narendra's left eye hemorrhaged; when he came to CEI for help, doctors also saw that a cataract was developing in his right eye. Dr. Riemann repaired the hemorrhage, and Anup K. Khatana, M.D., a glaucoma and cataract surgery specialist, performed cataract surgery — all on the same day.

In 2006, Narendra experienced another hemorrhage in the right eye and now had a cataract in that right eye as well. "Once again, Drs. Riemann and Khatana did both surgeries on the same day," Narendra remembers. "They have treated me as though I was a family member. My experience at CEI has been outstanding."

"We are fortunate to have a facility like this in Cincinnati."



Rose Mary Vollman | Age: 93

Diagnosis: Cataracts

At 93, Rose Mary Vollman could be forgiven for not wanting to risk cataract surgery, even though her loss of vision was more than she could ignore. "I couldn't read the newspaper," Rose Mary says. "I couldn't read the print." The encouragement of a family member helped Rose Mary make the decision. "He recommended I see Dr.

Robert J. Cionni."

"I found the whole experience very pleasant," Rose Mary remembers. "Everyone was so nice and considerate. I had confidence in them. I felt no pain during the surgery, and it was over before I knew it."

"I didn't have any fears of having this done. I'm normally very nervous about things, but I wasn't a bit shaken by this."



Robyn Bersani, Third-Grade Teacher | Age: 44

Diagnosis: Myopia

Robyn Bersani's contact lenses bothered her so much that she was forced to rely on her glasses all the time. It was while training for a half-marathon in the rain that Robyn decided she'd had enough. With her glasses dripping wet and foggy, she said to herself: "That's it; I have to get rid of these glasses now!"

Robyn came to CEI and met with Gary A. Varley, M.D., a cornea and LASIK specialist, who told her she was a good candidate for LASIK surgery, even with her severe astigmatism. "He was very clear with me about the potential difficulties, but I didn't have any of them," Robyn remembers. "The surgery was five years ago, and my vision is still better than 20/20." Meanwhile, Robyn is still running. "I ran the Flying Pig last year, and I've also run the Chicago Marathon," she remarks. "And I don't have to worry about my glasses anymore."

"Having LASIK surgery has been great — a very freeing experience."

astigmatic-correcting implants)

- Cataracts (secondary, congenital and traumatic)
- Endocapsular rings
- Aniridia (absence of iris tissue)

As we age, the normally clear lens of the eye begins to get cloudy and forms a cataract. Cataracts affect more than 80% of people over the age of 65 in the United States. To restore vision, the cataract is removed and the surgeon replaces the lens of the eye with an artificial lens, or intraocular lens (IOL). Today's state-of-the-art surgical techniques and intraocular lenses (standard, multifocal, accommodating and toric IOLs) contribute significantly to restoring natural vision. Surgeons select the lens that best optimizes vision for each individual patient. Foldable lenses are inserted through a microscopic incision and correct nearsightedness, farsightedness,

Below: Donations, research and educational opportunities create the Foundation at CEI.

Morgan Hughes | Age: 5 Diagnosis: Congenital Hereditary Endothelial Dystrophy



Morgan Hughes was 3 months old when her mom realized that she wasn't behaving normally. "She didn't even notice me when I walked into the room, or acknowledge a toy in front of her," Melissa recalls. The Hughes family was referred to Adam H. Kaufman, M.D., at CEI. Dr. Kaufman diagnosed Morgan with congenital hereditary endothelial dystrophy and a number of related eye problems, including bullous keratopathy (swelling of the cornea) and open-angle glaucoma.

As a result of these conditions, explains Dr. Kaufman, Morgan's corneas were very thick, and her only treatment option was a cornea transplant on both eyes. Dr. Kaufman performed one transplant in December 2002 and the other in February 2003. "When we took the patches off, we knew right away that she could see, because it showed on her face," Melissa says. "Everyone was ecstatic!"

"Dr. Kaufman has given my daughter a life by making it possible for her to see."

— Melissa Hughes, mother of CEI patient Morgan Hughes



PHOTOS BY DANIEL DAVENPORT AND KAMETO FUKUHARA

astigmatism and presbyopia, reducing patient dependency on corrective eyewear.

CEI surgeons perform more than 11,000 successful cataract procedures every year and have earned a national reputation for the research and development of new techniques and instrumentation to improve visual outcomes in the treatment of cataracts.

GLAUCOMA

Glaucoma is a disease in which pressure inside the eye slowly rises, eventually leading to blindness if not detected and managed. CEI glaucoma specialists provide complete diagnostic and surgical management for the prevention of vision loss due to the disease. They were the first to study the most advanced treatment available today to improve drainage, and control vision-threatening eye pressure, by combining the use of glaucoma surgery with antimetabolites, a form of drug therapy.

CEI glaucoma specialists provide comprehensive services, including glaucoma evaluation and testing; management of intraocular pressure; treatment to improve drainage of fluid from the eye, including surgery, laser treatments and implants; and other laser procedures to reduce intraocular pressure, such as trabeculoplasty and cyclophotocoagulation.

OPHTHALMIC PLASTIC RECONSTRUCTIVE SURGERY/ORBITAL AND COSMETIC SURGERY

Whereas other CEI specialists focus on conditions of the eye itself, reconstructive plastic surgeons also address issues that affect the bone structures around the eye and adjacent facial area, including eyelids and brows. They diagnose and treat blocked tear ducts; eyelid and orbital trauma; congenital abnormalities; orbital tumors and cancer of the eye tissues; thyroid eye disease; blepharitis; and ptosis, or droopy eyelids. In addition, they perform cosmetic surgery for adults wishing to improve the appearance of their eyelids or brows while, in some cases, also improving vision.



PHOTOS BY DANIEL DAVENPORT AND KANETO FUKUHARA



ADDITIONAL OPHTHALMOLOGIC SPECIALTIES

In addition to providing care in the eight specialties listed above, Cincinnati Eye Institute doctors also specialize in three other areas. These include neuro-ophthalmology, which concerns diseases af-

The Cincinnati Eye Institute Foundation Embraces a Vision for the Future

Doctors at CEI have long maintained a commitment to research, education and community service. Now those values will be expressed in a fresh way, through the work of The Cincinnati Eye Institute Foundation.

Established in 2006, the foundation has three objectives, says Amy Scrivner, Director of Development for the foundation. The first addresses the need for research in areas such as age-related macular degeneration and glaucoma, health concerns that will increase as the baby boomer population continues to age. "We want to be ahead of the curve, to fund independent bench and clinical research studies that will improve treatment options for patients," she explains.

One motivation for the foundation has been a paradigm shift in recent years as to the importance of understanding how genetics and perturbations in the genes are reflected in diseases, explains Michael Petersen, M.D., Ph.D., a vitreoretinal specialist, Chairman of the CEI Board of Directors and member of the Board of Directors for The Cincinnati Eye Institute Foundation. "At CEI, we'd like to engage in research that examines this link and then find ways to apply what we learn to the patient care setting quickly," he says. "Our partnership with University of Cincinnati physicians is essential to that pursuit, which will ultimately benefit patients today and in generations to come."

The second objective is to support the educational needs of future eye specialists. Scrivner says the foundation would like to fund a residency and a fellowship position at the University of Cincinnati in order to help train a new generation of compassionate and talented ophthalmologists. CEI doctors currently interact in such endeavors through a shared program with the University of Cincinnati and local hospitals.

The foundation's third objective is to increase public awareness about eye disease, as well as serve patients who have limited or no health insurance. "One example of this is that we hope to partner with local organizations to establish free eye care clinics in at-risk neighborhoods," Scrivner explains.

Local doctors, patients and friends of CEI can help the foundation fulfill its mission of service by making a donation, sponsoring a research or educational opportunity or supporting the delivery of eye care to underserved populations. To learn more, please call Amy Scrivner at (513) 569-3725.

fecting vision that originate from the nervous system, such as those involving the optic nerve; ocular oncology, which involves tumors relating to the eye and its appendages; and uveitis, an inflammation of the uvea, the layer of the eye between the sclera (white outer wall of the eye) and the retina.

LOOKING TOWARD THE FUTURE OF EYE CARE

CEI doctors continue to build upon the practice's 50-year tradition of excellence. "CEI's comprehensive services, top-notch physicians and new facility enhance our superb reputation in this region," says Dr. Petersen. "We always want CEI to be the place that patients and referring doctors think of first when it comes to eye care."

For more information or to refer a patient to Cincinnati Eye Institute, please call (513) 984-5133 or (800) 544-5133. Additional information is available at CEI's website, www.cincinnatieye.com. ■



PHOTO BY DANIEL DAVENPORT AND KANETO FUKUHARA



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