



Custom Wavefront LASIK  
in a High-Tech Boutique

*"In a study, 96% of patients treated with Zyoptix achieved the desired correction or better."*



## Eye Care Business

### Cavanaugh Eye Center Accepts Most Major Insurance Plans

As a courtesy to our patients we participate with most insurance plans and will file your claims for you. In keeping with our financial policy, patients are responsible for all co-pays, deductibles and fees not covered by insurance. Payments for elective procedures and for those not covered by insurance are due prior to the date of service. Our knowledgeable billing staff is available to help you.



# IN FOCUS

A Publication from Cavanaugh Eye Center

Fall 2008

A Message from

## Dr. Cavanaugh

"We live in a technology driven world and the medical field is no exception. When I started Cavanaugh Eye Center, we had the vision of creating a high tech boutique. While we have equipped the office with many advanced features, I am excited to announce that in 2008 and 2009 we are investing further in technology as part of our commitment to serve our patients to the highest level of care.

In the next several months you will see our own "technology boom". Starting in August, we are converting from paper medical records to electronic/ computerized records that will advance our capability to manage patients. Along with this, we are launching a fantastic new Website that will be an invaluable tool for patient education. The website will introduce a new look and new colors that will also be reflected in our newsletters, website, and printed materials. We have also invested in a tremendous patient education system called "Eyemaginations" that will provide our patients with personalized videos tailored to their specific diagnoses and needs. This system will be accessible in the office as well as via e-mail and the new website. Finally, some of you may have already noticed that we have converted to an automated appointment reminder system so that you are consistently reminded of the date, time and location of your visit with us.

It is my hope that all these technological advances will help to serve you better while giving our staff more time to provide hands-on personalized care with warmth and caring. Come see us this year and experience all of our exciting changes."  
*- Timothy B. Cavanaugh, M.D.*



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## Cavanaugh Eye Center Offers Life Changing Options for Treating Cataracts

### What is the Crystalens-HD?

Crystalens HD is the first FDA approved accommodating intraocular lens that, unlike a standard IOL, can treat both a person's cataracts and presbyopia- loss of near and intermediate vision. You probably noticed in your forties that you started to lose some of your up-close vision and had to start wearing reading glasses. Crystalens not only treats your cataracts (a clouding or hardening of your lens), but can also reduce or eliminate your dependence on glasses. It does so by recreating accommodation similar to your eye's natural lens. The unique Crystalens can reduce or eliminate glasses for most activities including: reading a book, working on the computer, and driving a car. Crystalens HD was modeled after the human eye and dynamically adjusts to your visual needs.



Virtual size of the new Crystalens HD "High-Definition" accommodating lens implant.

Crystalens HD is designed to allow the enhanced optic, or the central circular part of the lens that you see through, to move back and forth at the hinges and flex as you constantly change focus on images around you to improve near vision without compromising intermediate or distance vision.



## Eye on Lasers Zyoptix Custom LASIK goes beyond standard LASIK

Like spectacles and contact lenses, standard LASIK corrects nearsightedness, farsightedness, and astigmatism. Only the latest Custom LASIK technology is capable of additionally treating higher order aberrations. Higher order aberrations are tiny imperfections in the optics of your eye. They are unique to you and may cause blurry vision, glare, and halos around lights at night. Glasses, contacts, or standard LASIK can't correct higher order aberrations. Treating these higher order aberrations represents the next evolution of laser vision correction. Higher order aberrations can only be treated using today's latest customized procedures, known as wavefront-guided custom treatment. Our Custom Wavefront-guided system is the Zyoptix System from Bausch & Lomb.

print", or personalized map of your eye that will be used to design your unique treatment. This data is then wirelessly sent to the laser for your actual customized treatment.



**Zyoptix Custom Wavefront LASIK uses your personal visual fingerprint to improve the quality of your vision beyond glasses or contacts.**

Your personal "eye print", a treatment calculation individually adapted to your eye, an optical zone that is optimized

for you - that's why Zyoptix is the only platform that combines both the Orbscan corneal topography and Zywave optical aberrations to provide you with a truly PERSONALIZED treatment. Other lasers ignore the corneal data. Zyoptix Custom Wavefront technology improves the quality of your vision. In a clinical study, more Zyoptix Custom treated patients have had fewer problems with night driving and improved visual acuities that patients undergoing treatment with older standard Laser. We have also recently received FDA approval of a Monovision offset with Custom Zyoptix LASIK for patients over 40 with presbyopia. In a study, 96% of patients treated with Zyoptix achieved the desired correction or better. Now, more than ever, you can feel assured you're going to get the best possible vision from your Zyoptix Custom Wavefront LASIK procedure at Cavanaugh Eye Center.

The architecture of your cornea will be first measured using Orbscan Topography.

This painless exam measures 10,000 separate data points of the front and back surface of your cornea.

The second test uses an instrument called the Zywave to

measure the optical aberrations of your eye. Bausch & Lomb adapted this revolutionary technology from astrophysicists that used telescopes to get a better image of the faintest points of light in the night sky. It has been carefully refined for the use in the measurement of the eye's tiniest imperfections and creates a precise, three-dimensional "eye

## Ocular Health Tip

### What can I do for my dry eyes?

We see an increasing number of dry eye patients every winter. Dry eye syndrome is a common condition that affects as many as 10 million people in the United States. Dry eye is more common in women, especially after menopause. Dry eye can occur in dry climates, as well as with the use of certain drugs, including antihistamines, nasal decongestants, tranquilizers, and anti-depressants. People with systemic diseases, such as rheumatoid arthritis or Sjögren's syndrome can also develop dry eye.

There are many causes of dry eye but in general, the condition occurs because your eyes either don't make enough tears or they are ineffective and evaporate from your eye's surface too quickly. Your eyes may also

be dry from external eyelid disease such as Blepharitis or Meibomitis. Surprisingly, one of the main symptoms of dry eye is watering of the eyes, similar to what occurs when cutting onions.

**Other symptoms of dry eyes include:**

- Stinging or burning
- Scratchy or sandy sensations
- Stringy discharge
- Pain and redness
- "Heavy" sensations on the eyelids
- Blurred, changing, or decreased vision

There are several treatments available. These range from simple lifestyle modifications to prescription medications depending on the severity of the condition. Artificial tears, which lubricate the eye, are commonly used to treat dry eye. Additional environmental precautions that help with dry eye include:

- Avoiding outside windy and dry conditions
- Using room humidifiers
- Wearing wrap-around glasses when outside
- Avoiding cigarette smoke



For people with more severe forms of dry eye, temporary or permanent closure of the drainage hole called the punctum in the inner corner of the eyelids using tiny plugs or cautery may be helpful. In addition, prescribed medical treatment with anti-inflammatory medications, such as topical steroids or cyclosporine (Restasis), lessens the chance that dry eye will progress to a more severe form.

If you are suffering from dry eye symptoms, we'd be happy to discuss your lifestyle and the severity of your symptoms, and we will work with you to design a personalized treatment plan to make your eyes and vision comfortable.



# WHAT'S NEW AT CEC...

## New Topeka Clinic Location

We have made a change in our clinic location in Topeka. As of September 1st, we will begin seeing patients in Topeka at Dotson Eye Care at 2211 SE 29th St. Topeka clinic appointments are available on the 2nd and 4th Tuesday afternoon of each month and will still be scheduled through our main office number in Overland Park. We will also still continue to do surgery at the Topeka Surgery Center on the 2nd Tuesday morning of each month and the refractive seminars at Capitol Plaza Hotel on the 4th Tuesday evening each month. We look forward to seeing our surrounding Topeka patients at this new location.

## www.cavanaugheye.com

We are pleased to announce the launch of our new website [www.cavanaugheye.com](http://www.cavanaugheye.com).

As of September 1st, 2008, our new website delivers in-depth educational content with its new, easy-to-use and elegantly designed interface which reflects the advances of our practice. The website is easy to navigate, and loaded with informational content on all of our services and procedures. You can easily spend hours viewing the new Eyemaginations educational videos, reading up on the latest procedures, or reviewing post surgical instructions. You may now save yourself time by downloading our forms and having them filled out before you come in for your appointment. Please check out the new vision simulators with the IOL and LVC Counselor which will allow patients to "test-drive" their vision prior to LASIK or Cataract procedures. You will find access to maps, contact and travel information, insurance providers and financing options and so much more. We are proud to present this new online resource to all of our patients and medical professionals in the community. Please visit our new website and learn more about what's new at Cavanaugh Eye Center.



## Kansas City Patient Benefits from the Most Advanced Technology: Crystalens HD



For years Barb Evans 61, of Kansas City loved to read and watch movies and travel with her job. Recently, Barb began to notice a difference in her vision. It had become harder to read clearly, use the computer, or drive even with her glasses. "Everything looked blurry and yellow, like I was looking through a bowl of chicken noodle soup," said Evans, "I actually kept calling the cable company to tell them they must have hooked up my new high-definition

TV wrong." Concerned, she saw Dr. Cavanaugh to find out what was causing her vision problems, and she was diagnosed with cataracts and presbyopia.

"In the early stages of cataracts, stronger lighting and eyeglasses may lessen vision problems caused by the clouding of the lens. As a cataract progresses, sharp images may become blurred, seeing things at night can become more difficult, and the glasses (or contact lenses) that used to help people like Barb to see, or do other simple tasks, may no longer seem to help," said Dr. Cavanaugh. "Once the cataract impacts an individual's quality of life, surgery may be needed to improve vision. This treatment involves removing the cloudy lens and replacing it with an artificial lens."

Facing the prospect of cataract surgery, as well as the bother of constantly depending on her glasses for near work, Dr. Cavanaugh told Barb about the different choices he had when selecting an intraocular lens (IOL). An IOL is a lens that is implanted in your eye during cataract surgery, to replace the natural lens that has been affected by the cataract. The options are the accommodating or "focusing" Crystalens HD IOL, a multifocal IOL, an astigmatism correcting IOL, or a monofocal IOL.

"Previously patients who would undergo cataract surgery received monofocal IOLs, which typically require them to use reading glasses or bifocals for near vision following surgery," Dr. Cavanaugh says. "The good news is that IOL technology has taken an enormous leap forward.



## Staff Spotlight Meet Rebekah Lieber, C.O.A.

Behind every great medical practice are its excellent staff members. We are proud to introduce Rebekah Lieber, C.O.A. Rebekah is our dynamic clinic manager with over 14 years of experience. She brings an amazing enthusiasm and energy to our practice and sets the standard for exceptional patient care. Our outstanding staff is a direct reflection of her management, clinical skills, and hard work.

"I enjoy helping patients improve the quality of their life by restoring their vision," Rebekah says. "I love working for the best surgeon in his field that is interested in teaching and continuing our education in ophthalmology. I'm excited to be a part of the best staff that I have ever worked with. We are more than co-workers, but truly a family."

Rebekah and her husband Mike have a 4 year old son Mikey, and a newborn baby girl Maya. In her spare time she enjoys spending time with her family, boating, and exercising.



Now, the objective is not simply to improve patients' distance vision, but rather to enhance their near vision with an IOL that fits their individual needs. With multiple lens options, patients can truly select the lens that best supports their lifestyle."

Dr. Cavanaugh says, "The most dynamic premium lens is the Crystalens HD IOL, a lens that treats both cataracts and presbyopia – another age-related condition that hampers people's ability to see or read near objects, forcing the need for reading glasses or bifocals. This new intraocular lens, unlike any other accommodates or 'focuses' on hinges like your eye's natural lens delivering clear vision at distance, intermediate and near ranges."

"My surgical experience at Cavanaugh Eye Center was incredible," says Evans. "The staff and nurses at the new Deer Creek Surgical Center were fabulous. I was so surprised. It was quick, pain-free, and truly a great experience. My friend picked me up right at the door after surgery and drove me home. I could see the details and bright colors of the trees instantly." As a representative for 'Maui Jim', a premier sunglasses and optical company, she appreciates the excellent optical quality she has gained. "My goal was simply to be able to see again and they eliminated my cataracts, helped me see up close and eliminated my astigmatism all at once."

Barb is thrilled with her new Crystalens HD lens implants and her ability drive safely, watch movies, and read. "Thanks to Dr. Cavanaugh I can leave the house without glasses, and see my new TV and world in true high-definition," said Barb. "I'm now able to see like I did when I was a ten years old! It is a miracle."

## A Message from Dr. Beatty



"It is hard to believe that it has been almost two years since I have joined Cavanaugh Eye Center. One thing that interested me most in teaming up with Dr. Cavanaugh was his desire to stay progressive, evolve, and constantly improve the way we practice in ophthalmology. Our ethos of delivering the highest level of patient care has again made enormous strides this year. We've switched to electronic medical records, developed a new website, and adopted the latest in patient educational software.



Try Eyemaginations 3D-Eye Online at [www.cavanaugheye.com](http://www.cavanaugheye.com)

We have revolutionized the way we now educate patients both in an out of the office with Eyemaginations software. Eyemaginations will enhance your eye care experience with us before, during, and long after your eye examination. We can now show you with very realistic 3D-Eye animations exactly what your personal ocular conditions are and what occurs during your cataract or refractive procedure all from the comfort of your own home. Through the use of Email, take home CD-ROMs, exam room computers, and our new website service 3D-Eye Online, we can educate patients better than ever before. I encourage you to visit our exciting new website and enjoy using this amazing new 3D-Eye Online educational resource."

Eric S. Beatty, O.D.

## New Treatments for Keratoconus



### Intacs® Corneal Implants and SynergEyes® Hybrid Contacts for Treating Keratoconus

Keratoconus is a progressive eye disease, which causes a thinning of the cornea, the clear front surface of the eye. As the disease progresses, the quality of one's vision deteriorates and contact lenses or glasses no longer become a satisfactory solution for most people. It normally affects both eyes, though it typically progresses at different rates. Keratoconus rarely results in total blindness although it can severely impair vision and, lead to the need for a corneal transplant. Until now - Intacs corneal implants are an exciting new option between contacts and transplant that may be the best possible option to stabilize the cornea and improve vision and defer a corneal transplant in most patients.

Intacs are indicated for the correction of nearsightedness and astigmatism for patients with keratoconus, where contact lenses and glasses no longer provide suitable vision. For those patients with keratoconus who are contact lens intolerant, Intacs corneal implants offer a less threatening option than a corneal transplant. Dr. Cavanaugh would prefer to delay a corneal transplant - to make it the option of last resort. Intacs corneal implants make this a possibility by improving functional vision, and possibly delaying the need to for a corneal transplant. Dr. Cavanaugh is a cornea fellowship trained specialist with expertise with keratoconus. He has also undergone a rigorous training program specific to Intacs for treating patients with keratoconus.

#### Benefits of Intacs for keratoconus:

- Safe, removable, replaceable
- Reduces myopia and astigmatism associated with keratoconus
- Restores the cornea to a more natural dome shape
- Provide patients to better tolerate contact lenses
- Minimally invasive surgical procedure
- Recovery is days, compared to months for a corneal transplant
- Improves quality of life
- May delay need for corneal transplant

For more information on Intacs for keratoconus, please visit [www.intacsforkeatoconus.com](http://www.intacsforkeatoconus.com).

### SynergEyes Hybrid Contact Lenses for Keratoconus

Other non-surgical options now exist to treat keratoconus. Remember when you had only two choices in contact lenses? "Hard" (rigid gas permeable) lenses were best for crisp, clear vision, but were often irritating and uncomfortable. Soft lenses were the most comfortable, but often provided less-than-optimal vision. Now, a technological breakthrough makes having to choose a thing of the past. We are proud to introduce the new and exclusive SynergEyes hybrid contact lens. "SynergEyes hybrid is the best lens option for patients with keratoconus I've seen to date. They offer the best of both worlds", says Dr. Beatty. "SynergEyes lenses provide the clarity of a hard rigid lens with the visual stability and comfort of a soft lens."



The soft skirt offers improved comfort while the "breathable" rigid center keeps eyes healthy while providing crisp, clear vision...even at night.

## "Test Drive" your vision with the new IOL and LVC Counselor software.

In conjunction with new Presbyopia correcting intra-ocular lenses (IOL) and Custom Wavefront LASIK, we have integrated the IOL Counselor and LVC Counselor (Laser Vision Correction) patient education software program into our office and website, [www.cavanaugheye.com](http://www.cavanaugheye.com). IOL Counselor uses a dynamic, outdoor scene that allows you a vivid, real-world visual effect of progressing from normal vision, to presbyopia, to cataracts and how a patient would see the world through standard monofocal IOLs versus presbyopia correcting IOLs. The LVC Counselor simulates vision before and after Standard versus Custom Wavefront LASIK. Before purchasing any luxury item, people have to visualize themselves owning and enjoying the product, which is difficult to do. That's why people test-drive a vehicle before they purchase it. The IOL and LVC Counselor Vision Simulators are powerful tools that allow patients, along with their family members, to virtually 'test drive' Custom LASIK vision correction or presbyopia correcting implants before making their decision.

If you believe you are developing cataracts, or are considering custom LASIK treatment, please visit [www.cavanaugheye.com](http://www.cavanaugheye.com) or follow the links on our homepage to see this compelling demonstration, and better understand your treatment options. We're happy to discuss them with you during your exam.

