



Central Ohio Eyecare, Inc.
3130 Olentangy River Road
Columbus, Ohio 43202
RETURN SERVICE REQUESTED

PRSR STD
U.S. POSTAGE
PAID
Columbus, OH
PERMIT# 4535

CONTACT LENS OVERWEAR, WHY RISK IT?

Back in the 1500s, Leonardo Da Vinci was the first to develop the concept of a contact lens. If Leo could only see us now, he would be amazed by the hundreds of contact lens designs and dozens of highly sophisticated plastic polymers available. Today it's rare that a patient cannot be fitted with some kind of contact lens.

But are we treating our eyes well?

It's true that contact lenses are wonderful, and they provide an excellent alternative to glasses. But contact lens use is not without risks, and the potential for vision-threatening problems is present, especially in those who abuse the use of contacts.

Contact lens complications: It's mostly about oxygen!

First of all, it's important to understand that wearing contact lenses is very safe...assuming it is not abused. When you think of contact lens-related complications, the first thing you must think in terms of is oxygen.

Simply stated, even the best fitting contact lens causes a compromise of the oxygen supply to the cornea. The cornea receives most of its oxygen supply through diffusion through the tear film. Contact lenses create an additional barrier to the diffusion process. Therefore, when a contact lens is in the eye, not as much atmospheric oxygen gets through to the cornea as compared to when there is no contact lens on the eye. Over a long period, too little oxygen is not good.

What can happen?

If you were to continue using a disposable razor, you'd eventually nick your skin by the dulled blade. Disposable razor blades are meant to be thrown away after a period of time. It's similar with disposable contact lenses. They are meant to be discarded after a designated period of time. FDA approval of wear schedules is based on studies con-

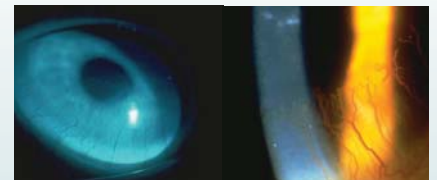
ducted for safety over a certain period of time.

Wearing lenses outside the prescribed wear schedule has not been shown safe by these same studies and that is why the approved schedule was chosen.

It's important to understand that over-wearing your contact lenses, whether it's too many hours in a day, or too many weeks before discarding, may not cause you to experience any symptoms. Here lies the danger. If the cornea doesn't receive enough oxygen it actually becomes somewhat anesthetized, being less able to experience pain or discomfort. It also causes a reduction in corneal metabolism and integrity increasing the risk of infection and the ability of the cornea to resist or fight such an infection. All eye doctors have seen patients with various degrees of contact lens-related corneal abrasions, often without any symptoms. Several things can happen when the cornea is deprived of enough oxygen. The term deprive does not mean completely cutting off the oxygen supply, but instead refers to a subtle reduction in oxygen supply over a long period of time. Slow starvation, if you will.

Abnormal blood vessel growth

In the normal eye, the cornea is perfectly transparent tissue, with no blood vessels. If the cornea is deprived of enough oxygen over a period of time, blood vessels from the surrounding tissues can grow into the cornea. This is a response of the cornea "calling out" for oxygen; it's



Blood vessel growth into the cornea following soft contact lens overwear.

(Cont. on Page 3)

In Focus



With Central Ohio Eyecare, Inc.

A newsletter presented by Drs. Zigler and Heidish

Fall 2008

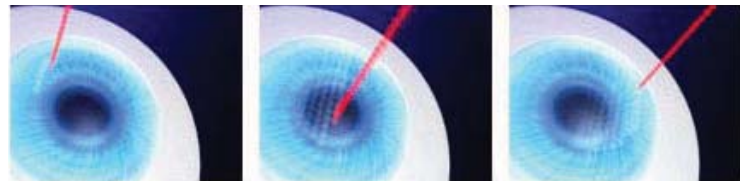
Central Ohio Eyecare, Inc. • 3130 Olentangy River Road • Columbus, OH 43202 • (614) 262-2020
Visit us on the Web at www.centralohioeyecare.com • appointments@centralohioeyecare.com

OFFICE STAFF: Administration: Brenda Corona, CPOA Insurance/Billing: Meredith Boggs, CPO Receptionist: Amy Pisanek
Opticians: Carol Stucker, ABOC, NAC, Lic. Opt.; Susan Bender, ABOC, NAC, Lic. Opt.; Kathy Cruikshank
Contact Lenses: Becky Williams CPOT, Debbie Campbell
Optometry Students: Travis Zigler Other Students: Lindsay Zigler, Rachel Sharrock, Jacquelyn Seaman

INTRALASE: THE LATEST IN LASER VISION CORRECTION

LASIK surgery may be elective, but good vision is not. We, at Central Ohio EyeCare understand how valuable your sight is to you, and we keep our sights set on providing safe and advanced technologies for our patients. That is why Bladeless LASIK using the IntraLase® laser is a technology that is used right here in Columbus.

- Doctors have traditionally used a microkeratome, a hand-held blade, to create the corneal flap needed to perform the LASIK laser vision correction treatment.
- With the development of the IntraLase® laser, the procedure is now 100% blade-free by using the precision of a laser for the entire process.
- Bladeless LASIK from TLC uses the most advanced technology for LASIK eye surgery and the IntraLase® laser.
- Bladeless LASIK technology gives your doctor the highest degree of surgical control for more effective procedures.
- TLC's 100% all laser LASIK eye correction allows Dr. Doyle, Medical



The silent computer guided laser creates the corneal flap by giving you a truly all laser procedure.

Director of TLC Columbus to customize each procedure with the precision of a laser.

- And because of this recent Bladeless LASIK technology even more people, including those with thin corneas, may now be candidates for Bladeless LASIK eye surgery.
- All parts of the procedure are customized
 - o Custom diagnosis before the procedure.
 - o Custom flap created with Bladeless LASIK.
 - o Custom treatment to complete the procedure.
- A comprehensive consultation will determine what is the best treatment for you.

HOW BLADELESS LASIK WORKS

(Cont. on Page 3)

WELCOME!!! TWO NEW EMPLOYEES AT CENTRAL OHIO EYECARE.

Amy is our new receptionist. She will be the first face you see upon entering the office. Originally from Canal Winchester, Amy currently lives in Circleville with her husband James and their 2 ½ year old daughter Lola. Amy graduated from Capital University with a Bachelors degree in Early Childhood Education and previously worked for 2 years at Lasik Plus Laser Eye Center.



Amy Pisanek

Debbie is our newest contact lens technician. Debbie is married to her husband Jim and they have 3 daughters. They currently reside in Baltimore, Ohio. Debbie has 5 years of experience in contact lenses and pretesting of patients as well as over 8 years in Laser Vision Correction.



Debbie Campbell

Join us in welcoming Debbie and Amy to the COEI team!!!

Affiliate
TLC®
Laser Eye Centers



0% FINANCING FOR 12 MONTHS!*

TLC Laser Eye Centers offers several payment plans to help make laser vision correction affordable to you. With a variety of ways to pay, there should be nothing standing between you and some of the most experienced vision correction surgeons in the country.

If you would like to learn more about Lasik or would like to see if you are a candidate, call to schedule a Lasik evaluation to determine your candidacy for the procedure with Dr. Zigler or Dr. Heidish.

WHY ARE MY EYELIDS ITCHY AND SORE?

Red rimmed, itchy, and sore eye lids are often the result of a common condition of the eyelids called Blepharitis. Blepharitis refers to inflammation of the eyelids, particularly at the lid margins. It's a very common disorder and may be associated with a low-grade bacterial infection or a generalized skin condition. It is notorious for reducing contact lens wear time and comfort in contact lens wearing patients. It is also important in dry eye symptoms as the tear film can be greatly disrupted and destabilized in cases of blepharitis leading many to mistake their symptoms for dry eyes.

Blepharitis occurs in two forms: anterior blepharitis and posterior blepharitis. Anterior blepharitis (Figs. 1a,b) affects the outside front of the eyelid where the eyelashes are attached. The two most common causes of this type are scalp dandruff (seborrheic) and bacteria normally present on the eyelids called staphylococcus aureus.

Posterior blepharitis(Fig. 2) affects the inner eyelid and is caused by problems with the oil (meibomian) glands in the eyelid. This form is often linked to the skin conditions acne rosacea and scalp dandruff.

Blepharitis Symptoms and Signs

Regardless of which type of blepharitis you have, you will probably have such symptoms as eye irritation, burning, tearing, foreign body sensation, crusty debris (in the lashes, in the corner of the eyes or on the lids), dryness and red eyelid margins.

It is important to seek treatment and the proper diagnosis of the type you have so that the appropriate treatment can be initiated. If your blepharitis is bacterial, possible long-term effects are eyelash loss, ectropion (outward turning eye lids, thickened lid margins, dilated and visible capillaries, trichiasis (eye lashes turned in and rubbing the cornea) and entropion (inward turning eyelashes). The lower third of the cornea may exhibit

significant erosion.

Blepharitis Treatments

Blepharitis can be difficult to manage because it tends to recur. Depending on the type of blepharitis you have, treatment may include applying warm compresses to the eyelids, cleansing them with a mild shampoo or pre-moistened lid scrub pads, using an antibiotic and/or massaging the lids. If blepharitis makes your eyes feel dry, your doctor also may prescribe artificial tears or lubricating ointments. Sometimes steroids are used to control inflammation, but the potential side effects speak against long-term use.

The warm compress portion of treatment is designed to loosen crusts on your eyes before you cleanse them; it can also warm up and loosen the plugs blocking the meibomian glands in meibomianitis (inflammation of the meibomian glands resulting in reduced lipid secretion.

Clean your eyelids by following these steps:

- Wash your hands, then dip a clean washcloth, cotton swab or gauze pad into your cleaning solution.
- Gently wipe across your lashes and lid margin.
- Rinse with cool water.
- Repeat the process for your other eye, but use a different washcloth,

(Cont. on Page 3)



Fig 1a. Staphylococcal Blepharitis



Fig 1b. Seborrheic (Dandruff) Blepharitis



Fig 2: Posterior Blepharitis and "clogged" meibomian glands



Visual Fatigue Syndrome

Typical symptoms:

Eyestrain • Neck Pain • Headaches • Blurred Vision

Visual Fatigue is Computer Vision Syndrome and much more!

Visual Fatigue Syndrome (VFS)

Today's visual demands place greater stress on near and intermediate vision

- In a recent study of more than 1,000 patients 25 years and older, respondents averaged between 6 and 7 hours per day at a computer*
- Computer use is the most common source of symptoms, but cell phones, PDAs, and video games also lead to VFS
- Most professions, such as accounting, engineering, administration, and design require extended intermediate and near viewing
- Hobbies, such as reading, scrapbooking, woodworking, needlepoint, fly tying, and detailed craftwork have increased near and intermediate demands

VFS is a growing concern

- Up to 83% of patients experience some form of VFS*
- 75% wear corrective lenses and still have symptoms of VFS*
- 25% suffer from VFS symptoms every day†

The solution to VFS

Essilor provides customized solutions for every patient need. Each solution is designed to help relieve the symptoms of Visual Fatigue and is based on each patient's visual status and usage of the lens.

ESSILOR VISUAL FATIGUE SOLUTION™ LENSES

PATIENT TYPE

NON-PRESBYOPES

PRESBYOPES

TASK-SPECIFIC VFS LENS

Essilor SV w/Intermediate Rx

Essilor Computer™

EVERYDAY VFS LENS

Essilor Anti-Fatigue™

Varilux® Physio® 360° or DEFINITY™

*Essilor Omnibus Study, 10/04.
†Decision Analyst Study, 8/04.



VARILUX®

DEFINITY™

PRIO®

VISION

CONTACT LENS OVERWEAR, WHY RISK IT?

the body's natural reaction to send in blood vessels. The aim of these new blood vessels is to deliver fresh oxygen to the starved corneal tissue. If left untreated, these vessels can continue to grow into the cornea and can interfere with vision. Incidentally, these vessels are permanent. They remain even if one is to cease wearing contact lenses. So, prevention of their growth is key. This growth can also create a complication for future corneal surgery if ever needed or desired including Lasik surgery.

Surface cell problems

Another adverse effect of reduced oxygen supply involves the single layer of cells on the surface of the cornea. These epithelial cells are very sensitive to reduced oxygen supply. Over time, they can swell and become loosened from their firm attachment to the cornea, leaving openings in the cornea's protective surface. These openings in the surface are opportunities for bacteria to cause infection. If too many epithelial cells slough off, an abrasion, or worse, a corneal ulcer, can form.

Lastly, we now know that reduced oxygen supply to the cornea causes various bacteria to be able to bind to the epithelial cells. Healthy, well-oxygenated epithelial cells tend to resist bacterial binding. Obviously, when bacteria bind to the surface cells, they are in a position to cause an infection.

Preventable

All these complications are highly preventable through the use of common sense. Don't wear your contact lenses all the time. It's important to give your corneas a regular "oxygen break". If you are just hanging around the house, it's a nice opportunity to give your eyes a rest by wearing your glasses. Avoid wearing your contacts for all your waking hours.

Disposing of your lenses

The reason to dispose of your contact lenses after a designated wearing

period, whether it's two weeks or one month, once again has to do with oxygen. When a new lens is placed on the cornea, the level of oxygen getting through to the cornea is at its peak. Over time, as the lens is worn and becomes layered with tear proteins, as well as other debris and makeup, corneal oxygen levels begin to diminish. Unfortunately, some patients continue to wear their lenses far beyond the safety point. Since they frequently have no symptoms, they mistakenly believe that nothing is wrong. Don't be deceived into this way of thinking. A fresh lens will give your corneas the oxygen they need

The big picture

One must think in terms of the long haul when wearing contact lenses. It's important to maintain optimal corneal health throughout life. You're not doing yourself any favors by wearing lenses too many hours each day, or wearing your lenses past their designated life span. Remember, the key is to keep as much oxygen flowing to the cornea as possible.

Stay in close touch with your doctor

Doctor Zigler or Heidish will examine your corneas to make sure none of the problems we've talked about are taking place. Adhere to the lens replacement and appointment schedule you are given by your doctor. If you suspect that you do have a problem, if your eye gets red, or if your vision is blurred or painful, stop wearing your contact lenses and call our office.

Giving your eyes a reasonable oxygen break each day and replacing your lenses when you're supposed to will help ensure that your corneas remain healthy and that you have many years of problem-free, clear vision with your contact lenses.



Lipid and Protein deposits forming on lenses worn past their prescribed replacement schedule.

EYELIDS (CONT.)

swab or pad.

You may have to clean your lids several times daily to start, and then once daily thereafter. If your case is seborrheic in nature a good dandruff shampoo would be recommended as well.

Antibiotic treatment is recommended only for certain types of blepharitis. A topical antibiotic ointment or an oral antibiotic may be required in more severe or chronic cases.

If you have meibomian gland dysfunction, massaging the lids to remove excess oil from the gland orifices is recommended. The correct technique involves the steps below:

1. Close your eye
2. Complete a hot compress as described above
3. With the eye closed pull gently from the outer corner so make the lid more taught against the eye. Gently rub with an index finger along the lid margin at the base of the lashes being careful not to rub inside the eye.
4. Clean the eyelids following the massage to remove any expressed oils from the meibomian glands that have accumulated on the lid margins.

Recently, some research has suggested using flaxseed oil supplements (omega-3 fatty acid), either by pill or by liquid, to stabilize the meibomian secretions associated with meibomian seborrheic blepharitis. Be sure to discuss any supplement use with your doctor to avoid any possible sensitivity issues or adverse interactions with other medications you may be taking.

INTRALASE (CONT.)

- In as little as 30 seconds, tiny pulses of laser light (a quadrillionth of a second each) form a layer of microscopic bubbles just beneath the surface of your eye that will create the corneal flap.
- The layer size and shape are determined by your doctor and are computer controlled providing maximum precision.
- Because it was created by a laser, this corneal flap is uniquely able to "lock" back in place after the procedure, allowing for rapid healing.

BENEFITS OF BLADELESS LASIK

- More than 1 Million: The number of worldwide blade-free, all laser LASIK procedures.
- Studies confirm the incidence of dry eye symptoms may be reduced.
- Results of studies done by IntraLase® show that those who were previously dismissed as non candidates due to thin corneas may benefit from Bladeless LASIK.
- Using a laser provides rapid visual recovery.
- Clinical studies show Bladeless LASIK using IntraLase® take more patients to 20/20 vision and beyond.
- Patients report better quality of vision overall, including the ability to see well in low light, at dusk, or at night.