Special points of interest:

- ***See Clearly Without Surgery Risk***
- Dry Eye Syndrome
- Allergy Eyes
- Contact Lenses
- Your Eyes and Your Health
- The New "Bionic" Crystalens®

Super Vision Center

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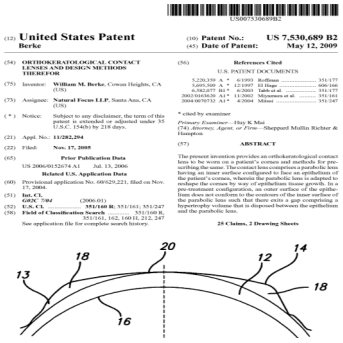
SUPER VISION CENTER

What's New at SVC SPRING-SUMMER 2009

NEWS FLASH

Dr. Berke Granted US Patent
For New Ortho-k Contact Lens



(12) **United States Patent**
Berke

(10) **Patent No.: US 7,530,689 B2**
(45) **Date of Patent: May 12, 2009**

(54) **ORTHOKERATOLOGICAL CONTACT LENSES AND DESIGN METHODS THEREFORE**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 218 days.

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Related U.S. Application Data

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(51) **Int. Cl.**
G02C 7/04 (2006.01)

(52) **U.S. Cl.** **351/161**; 351/247

(58) **Field of Classification Search** ..... 351/161, 162, 160 H, 212, 247
See application file for complete search history.

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(57) **ABSTRACT**

The present invention provides an orthokeratological contact lens to be worn on a patient's cornea and methods for prescribing the same. The contact lens comprises a parabolic lens and a peripheral lens. The parabolic lens is adapted to the patient's cornea, wherein the parabolic lens is adapted to reshape the cornea by way of epithelium tissue growth. In a pre-treatment configuration, an outer surface of the epithelium does not conform to the contours of the inner surface of the parabolic lens, such that there exists a gap comprising a hyperopia volume that is disposed between the epithelium and the parabolic lens.

28 Claims, 2 Drawing Sheets

Dry Eye Syndrome (DES)

"Dry eyes" is the most common patient complaint. About 59 million Americans suffer from DES. Common symptoms are: gritty, reddened & burning eyes. Symptoms may result from several factors including: aging, environmental, computer work, contact lens wear, medications and, auto-immune diseases. Patients who have had their dry eyes treated not only have more comfortable eyes, but many have also seen improvements in their allergies, asthma, sinus and ear problems.

Do You Suffer From Itchy Eyes?

You may be one of 50 million Americans with allergy related eye problems. Itchy, red, swollen, watering eyes can occur when your immune system mistakes substances called allergens, as unwanted intruders. To protect your eyes against allergens, your body releases histamines, which cause the itching. Fortunately, relief can be as easy as using eye drops containing antihistamines to block the body's reaction. ***Eye infections***, that may look similar (pink eye), are treated with other medications when the cause is not simply allergy.

Eye Exams Are For More Than *Just* Vision Correction

Your eyes reveal more about your health than you know. Your eyes are windows to your overall health. Many diseases show early signs in the eyes, and many can affect your vision. We look for signs of:

Hypertension. The appearance of irregular blood vessels on the retina could indicate hypertension or risk of stroke.

High Cholesterol. The condition of the eye's veins and arteries could reveal a risk factor for stroke or heart disease.

Diabetes. Small, areas of bleeding on the retina may be an early sign of diabetes. Increases and decreases in blood sugar level could cause blurred vision. Diabetic retinopathy affects 4.4 million Americans.

What is Macular Degeneration?

Age related macular degeneration (AMD) is a retinal disease that affects the sharp, central vision which can make reading and driving impossible. It is the leading cause of blindness over 65. Currently, 2 million Americans have AMD. There are two forms, dry (90%) and wet (10%).

What is a Cataract?

A cataract is a clouding of the lens inside the eye. It blocks light from reaching the back of the eye and interferes with vision. 22.3 million Americans have cataracts. More than 3 million surgeries are done per year. The **Crystalens®** is a new, FDA approved implant that mimics the eye's natural focusing ability. This unique lens provides a continuous range of vision, from distance to near reading vision, eliminating total dependency on glasses or contact lenses.

What is Glaucoma?

Glaucoma is a category of disease of the optic nerve. One of the leading causes of blindness in the U.S., chronic glaucoma has no symptoms at first, but progressively can steal your sight. 2.29 million Americans have glaucoma, the "sneak thief of sight." Another 2 million don't know they have it. ***Glaucoma is treatable***, and the earlier it is diagnosed and treated, the less chance there is of vision loss occurring.

The Latest and Greatest in Eye Care

◊ ***Orthokeratology (Ortho-k)*** – Safe, effective, gentle and an FDA approved process, ortho-k is a viable alternative to refractive surgery without any surgical risk, nighttime vision distortion or the loss of best quality vision common with LASIK. No cutting or healing time is needed. It is completely reversible, or "tunable," as vision normally changes. A custom designed, hyper-oxygen permeable contact lens is used to reshape the front surface of the eye (cornea) to correct nearsightedness and astigmatism ***while you sleep.*** You can enjoy clear vision while you're awake without needing contacts or glasses. Ortho-k is a good choice for anyone, any age, who want or need to see clearly without devices or surgery. Remarkable current research is showing that ortho-k may stop myopia progression. Dr. Berke leads in the field of orthokeratology with his newly patented lens design and method of fitting. He has lectured internationally on the subject of ortho-k and has published several papers, posters and studies. In May 2006, Dr. Berke was made a Fellow of the Orthokeratology Academy of America. In April of 2008, Dr. Berke lectured at the OAA Global Conference held in San Diego. The results of his current university study is shedding new light on the physiology of what really happens to the cornea from ortho-k.

◊ ***LASIK Surgery*** – We continue to manage laser eye surgery patients with Dr. Thomas S. Tooma at TLC Laser Eye Center. He is a corneal specialist and one of the best ophthalmic surgeons in the world. Dr. Tooma has incorporated the new Intralase, 100% laser procedure and uses the new wavefront technology to produce the most precise, customized surgical treatment and outcome.

◊ ***Web Page*** – Please visit, ***www.supervisioncenter.com***. You will find it to be a very helpful source of eye care information. We constantly update the site and now have installed an e-commerce section.

◊ ***Children's Eye Exams*** – We are often asked when should a child have their first eye exam. Most eye doctors recommend that a child's first exam should be ***before they start school***, or sooner if the parent notices anything that they think is abnormal (excessive squinting, headaches, an eye turn or "lazy eye"). Most children will not complain about their vision because they do not know what they should see. Don't wait for them to complain before you bring them in for their first exam. Several states now make eye exams mandatory prior to school enrollment.

◊ ***Computer Vision Syndrome (CVS)***– More than 143 million Americans work on a computer each day, with 88% of them suffering from computer eyestrain, according to estimates. The solution is simple. Once an accurate diagnoses is made and ergonomics and working distances are measured and evaluated, it's a simple matter to prescribe computer eyeglasses that will allow you to work comfortably and productively.

◊ ***Eyewear Selection and Spectacle Lenses*** – We pride ourselves on having the largest showroom with the biggest selection of the best the eyewear industry offers. We have all lens types and the thinnest/lightest high index plastics. We also have a full service, in-house lens grinding lab where we control the quality of production and speed of delivery.