

Scleral Contact Lenses

New therapeutic treatment helps patients with ocular surface disease or severe dry eye.

Patients with eye surface irregularities or diseases can experience numerous frustrating symptoms, including blurred or distorted vision, eye discomfort or severe eye dryness.

Fortunately, there is a new therapeutic treatment for such conditions known as *scleral contact lenses*. Different from standard contact lenses, scleral lenses completely cover the cornea and extend into the white part of the eye, known as the *sclera*.

"Having ocular surface disease causes people to experience blurriness and distortion of their vision and is not correctable by traditional eyeglasses or contact lenses," explains Michael N. Mandese, OD, FAAO, an optometric physician and chief of neuro eye services at The Eye Institute for Medicine & Surgery.

Until recently, there were relatively few nonsurgical treatment alternatives to help improve the quality of life for patients experiencing eye discomfort or distorted vision resulting from corneal injuries, diseases such as keratoconus and band keratopathy, or surgical procedures that caused corneal surface irregularity.

With the development of the latest generation of scleral contact lenses, improved vision and relief of discomfort and dryness are now possible for many of these patients.

"The scleral contact lens compensates for the absence of a smooth corneal surface by providing what is, in essence, a new, enhanced surface that is much smoother than the one that the patient has," explains Eric R. Straut, OD, an optometric physician and low-vision specialist at The Eye Institute. "This is important both for comfort and vision, as the surface of the eye bends light in a way that brings images into focus. A smooth surface can help produce clear images, whereas a rough surface may create images that are blurry or distorted."

"The new, smooth surface created by the scleral contact lens bends light in a manner that helps many people optimize their visual potential and eliminate blurriness and distortion that they were previously forced to endure," adds Dr. Mandese.

Dry eye syndrome

Patients with severe dry eyes, which often results from systemic disease or the use of certain medications, may also



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benefit from a specialized scleral contact lens fitting. "Patients with Sjögren's syndrome, rheumatoid arthritis, lupus, sarcoid, Crohn's disease, irritable bowel syndrome, or one of many other autoimmune diseases often experience the most severe forms of dry eye syndrome," reports Dr. Straut.

"Symptoms of dry eye syndrome include severe dryness, foreign body sensation, blurring of vision or, surprisingly to many, excessive tearing," he adds. "Patients are often surprised when I explain that the source of their excessive tearing is actually dry eye syndrome."

"If your eyes feel dry, oftentimes the body attempts to compensate for this dryness by sending out more tears," observes Dr. Mandese. "Unfortunately, the quality of these tears is poor. This is why, in some cases, more and more tears are sent to the eye, leaving the patient with fluctuating vision, uncomfortable and unhappy."

However, adds the doctor, "with full coverage of the eye and the lack of exposure to wind and circulating air, and with the eye being bathed in preservative-free saline solution throughout the day, patients with severe dry eyes who have received a custom scleral contact lens fit often experience greatly improved comfort."

Optimized results

Using leading-edge technology, computerized scanning devices take multiple measurements across the surface of the eye to ensure a custom fit, thus helping each patient realize his or her maximum visual potential and ocular comfort.

"Compared to traditional 'hard' or *gas permeable* contact lenses, the new scleral contact lenses are extremely comfortable in the eye," notes Dr. Straut.

"Unlike traditional hard or even soft



Scleral contact lenses can benefit patients suffering from the discomfort caused by dry eye disease.

lenses that move about in the eye when a person blinks, scleral contact lenses move only minimally," describes Dr. Mandese, adding, "This absence of movement combined with a custom fit results in substantially improved comfort."

"It's truly inspiring when a patient tells me that our efforts have not only improved their vision and comfort, but also that their quality of life is substantially better due to the care we have provided at The Eye Institute for Medicine and Surgery," states Dr. Straut.

Dry eye treatment

Dry eye therapies include artificial tears, punctal occlusion and nutritional supplements. Artificial tears are eye drops that can be placed directly into a person's eye. These tears are formulated to be very similar in consistency to ideal natural tears. Some are thicker than others and tend to last longer and be more soothing than thinner tears.

Punctal occlusion works by helping the body retain natural tears longer, improving both comfort and vision. Punctal occlusion involves placing tiny, dissolvable plugs into the lower (and occasionally upper) tear drains. This also helps artificial tears remain in the eye longer, enhancing their benefit and reducing the number of times per day that the artificial tears need to be administered.

While there are many nutritional supplements available to help improve one's tear film, those that provide the

most benefit contain specific formulations including omega three, six and nine oils. These supplements reduce inflammation in the *lacrima*, or tear production, glands and elsewhere in the body.

"Numerous studies show that omega three, six and nine oils help reduce inflammation caused by arthritis and other forms of chronic inflammation, and help with circulation throughout the body," notes Dr. Straut.

"There are truly many benefits to using these types of supplements," adds Dr. Mandese. "In many cases, with four to six weeks of consistent recommended use, patients notice a significant improvement in their eye comfort. Diet and supplements clearly play a significant role in maintaining and enhancing the tear film."

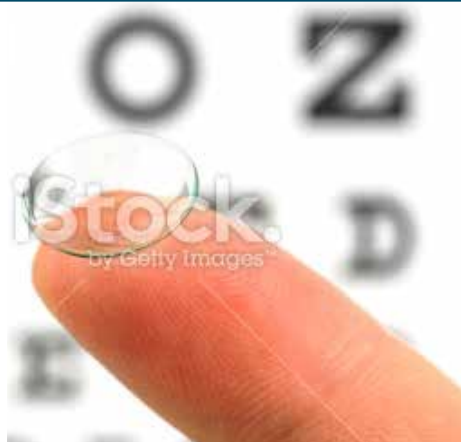
"Following extensive research, the formulation we have found to be the most effective and that we recommend to our patients is the Doctors' Optimal Dry Eye Formula," he reports.

Comprehensive eye care

"At The Eye Institute for Medicine and Surgery, we offer comprehensive care and comprehensive solutions for a full range of medical eye concerns," assures Dr. Mandese. "If you or a loved one is experiencing blurred or decreased vision or eye discomfort of any sort, an examination with one of our subspecialist eye physicians may be the best first step toward improving your vision and overall eye health." **FHCN**

Comprehensive eye evaluations

When it comes to your eyesight, only the best will do. To schedule a comprehensive eye examination with one of the specialists at The Eye Institute for Medicine & Surgery, please call (321) 722-4443. They have three offices – 1995 W. NASA Blvd. in Melbourne, 150 S. Woods Drive in Rockledge and 5055 Babcock Street NE in Palm Bay.



Michael N. Mandese, OD, FAAO, is a fellow of the American Academy of Optometry. He received his Bachelor of Science degree and Doctor of Optometry degree from Nova Southeastern University in Miami. He completed his internship at the Bascom Palmer Eye Institute in Miami and residency at Fox Medical Center in Miami. Dr. Mandese is a member of the North American Neuro-Ophthalmology Society, the Brevard Optometric Association, the Florida Optometric Association and the American Optometric Association.



Eric R. Straut, OD, earned his Bachelor of Science degree in molecular biology from Grove City College near Pittsburgh, PA and his Doctor of Optometry degree from Nova Southeastern University. Dr. Straut is a member of the Florida Optometric Association and the American Optometric Association.

To schedule an appointment with Dr. Mandese, Dr. Straut or one of the other eye specialists at The Eye Institute for Medicine & Surgery, please call (321) 722-4443 or visit www.SeeBetterBrevard.com. Appointments are available in the Rockledge, Melbourne and Palm Bay offices.