

VISIONARY

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FOUNDATION ONLY SITE IN INDIANA TO RECEIVE FDA APPROVAL FOR TESTING OF NEW LASER

Spending a few minutes undergoing a simple procedure in the doctor's office may someday replace the need to wear eyeglasses. Two Indiana physicians, along with doctors at thirty-six other locations across the country, are investigating a device called the excimer laser to see if it can be routinely used to correct nearsightedness (myopia), farsightedness (hyperopia), and corneal scars caused by burns or injuries.

Today, some patients with these vision problems have to wear "coke bottle" thick glasses, or undergo major eye surgery to improve their sight. But the preliminary results of the excimer laser investigation are encouraging—so much so, that one of the principle investigators of the study, Dr. Francis Price Jr., says it's quite possible that in ten years, hardly anyone will have to depend on eyeglasses

for better sight.

You may envision a laser as a device that has enough light energy to cut through a thick piece of metal, but the excimer is what's known as a low-intensity or "cool" laser.

According to Dr. Price, "The excimer laser is like a magic eraser which vaporizes nature's irregularities and mistakes on the cornea."

Other lasers use heat to burn away irregularities, but the excimer laser vaporizes the tissue, allowing doctors to "sculpt" the shape of the cornea.

First, the outer layer of the cornea is removed under a local anesthetic. Then the laser beam is directed onto the area which will be changed. A series of short laser pulses is beamed onto the eye, removing only those layers of corneal tissue necessary to correct the problem. The excimer laser doesn't penetrate the tissue because the beam stops as it ablates the irregular layers. This highly sophisticated procedure is performed in a specially designed suite at the doctor's office and takes only a few minutes.

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Dr. Price prepares to use excimer laser

GLAUCOMA SPECIALIST JOINS FOUNDATION

Barbara A. Smythe, M.D., who joined Corneal Consultants of Indiana in August 1991, has been named acting executive director of the Cornea Research Foundation of America.

According to Francis W. Price Jr., M.D., and William E. Whitson, M.D., the directors of the organization, Dr. Smythe is an expert in the medical and surgical treatment of glaucoma. Dr. Smythe is studying glaucoma patients using a data base established in 1986. It includes more information on long-term treatment of this disease than any other study in the nation. She will combine information from her studies with the continuing research the Foundation has done in corneal disease treatment and the performance of corneal



Barbara A. Smythe, M.D.

surgery. This merger of information will allow physicians to access a wider scope of knowledge concerning the diagnosis and treatment of various eye diseases.

Dr. Smythe came to the Foundation and Corneal Consultants from the University of Wisconsin Department of Ophthalmology at Madison. She did her undergraduate studies at the University of Wisconsin, received her medical degree

from Harvard University Medical School, and performed her internship at St. Luke's Hospital-Washington University, in St. Louis. She served her residency in ophthalmology at the University of California, Irvine.

Additional training has included a research fellowship in neuroophthalmology at the Estelle Doheny Eye Institute at the University of Southern California, as well as a glaucoma fellowship at the University of Wisconsin Medical School.

Dr. Smythe is a member of the American Medical Association, the American Academy of Ophthalmology, the American Society of Cataract and Refractive Surgery, and Phi Beta Kappa.

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So far, the laser has been found to have several uses; it can remove scars off the surface of the cornea and restore sight in visually impaired eyes, or it can be used to "balance" the difference in glasses power that occasionally occurs in eyes following other types of eye surgery.

"Perhaps its most exciting application is in reshap-

ing the surface of the cornea to allow nearsighted patients to see more clearly without their glasses," says Dr. William Whitson, who is also a key investigator in the FDA study.

The laser is computer controlled with a number of safeguards. For instance, in the unlikely event of a computer malfunction, the system is in-

terrupted, shutting down power to the laser itself.

The Cornea Research Foundation of America is closely monitoring patients treated with the excimer laser and is documenting the safety and effectiveness of the procedures. Patients who have this laser surgery are enrolled in a nationwide study which

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GIFTS TO THE FOUNDATION MAKE RESEARCH POSSIBLE

Four of the newest members of the Cornea Research Foundation of America were recently honored with plaques and photos commemorating their gifts: Mrs. Charline Trout of Yorktown, Indiana, Lester and Dessie Jepson of Winchester, Indiana, and Mrs. Ruby M. Stewart of Brazil, Indiana, whose membership is dedicated in memory of her late husband.

The advanced research and investigational studies conducted by Foundation directors Dr. Francis Price Jr. and Dr. William Whitson would not be possible without the generosity of past and current patients, and others dedicated to improving vision.

Dr. Price and Dr. Whitson are involved in numerous studies and research projects designed to improve and restore vision, including laser surgery, corneal transplantation, and glaucoma treatment. Your membership in the foundation will enable Dr. Price and Dr. Whitson to continue their sight-saving research.



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To find out how you can help make research possible and become a member of the Cornea Research Foundation of America, contact Penny Byers at (317) 844-5610

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collects and analyzes data during the postoperative period. The Foundation says more patients, especially those who are nearsighted, are needed for the study. A large investigation of this nature is expensive to run (the laser itself, which was purchased by Corneal Consultants of Indiana, cost \$500,000), but it could potentially improve vision for millions of Americans who suffer from various

conditions and degrees of impairment.

Because the FDA requires that patients be followed both before and after surgery, the study is expected to last one to two years. Additional investigations to see if the excimer laser can be used to correct farsightedness (hyperopia) and distorted vision caused by a misshaped cornea (astigmatism), are expected to get

underway this spring.

The Cornea Research Foundation of America is the only FDA investigational site in Indiana using the excimer laser. Because of the investigational nature of the procedures, the FDA requires any informational material concerning the excimer laser to contain the following disclaimer: "Investigational device, limited by Federal law to investigational use."



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