



Eye Care Insight

Fall/Winter 2006

BAPTIST EYE SURGEONS



... A Commitment to Lifestyle

Our Physicians are Board Certified by the American Board of Ophthalmology

Marc A. Bodenheimer, M.D.

L. Nichols Cook, M.D.

Robert E. Hall, M.D.

Albert K. Holmes, M.D.

Mark Y. Ivens, M.D.

James R. Kimble, M.D.

J. Franklin Murchison, Jr., M.D.

Darin S. Smith, M.D.

William R. Sullivan, M.D.

Two Convenient Locations

Baptist Eye Institute

2020 Kay Street
Knoxville, TN 37920
865-579-3920

Tennessee Valley Eye Center

140 Capital Drive
Knoxville, TN 37922
865-579-3920

Visit our Website:
www.baptisteye.com

DSAEK: Sutureless Cornea Transplant a Dream Come True

When the critical inner cell layer of the cornea stops working, the cornea becomes cloudy, frequently needing a transplant. J. Franklin Murchison, Jr., M.D., of the Baptist Eye Surgeons, is now offering a new cornea transplant technique that replaces only the damaged inner cell layer instead of replacing the entire thickness of the cornea. This new technique – **Descemet's Stripping with Automated Endothelial Keratoplasty (DSAEK)** – allows the cornea to heal faster and stronger and can significantly improve a patient's visual recovery.

"DSAEK is an exciting new technology that, in many cases, has noteworthy advantages over a standard corneal transplant," Dr. Murchison says.

Recent advances are making DSAEK a preferred method of treatment for a variety of cornea diseases. Over the past several years, Dr. Murchison has performed hundreds of corneal transplants and managed thousands of corneal diseases. Dr. Murchison believes DSAEK will, in many cases, provide faster visual recovery. DSAEK patients now routinely achieve 20/50 or better vision within a month of surgery and some have achieved 20/25 vision within a week of surgery.

The basic DSAEK technique consists of gently stripping off the diseased cell layer lining of the inner surface of the cornea (endothelium). A donor cornea is thinly sliced and the inner portion is folded in half for insertion through a small incision made in the white part of the eye. Dr. Murchison injects an air bubble into the eye to unfold the donor tissue and press it into place. The natural pumping action of the donor endothelial cells quickly creates suction, which bonds the donor tissue to the patient's cornea.

The major advantages of DSAEK, as compared to a standard transplant, include: 1) The eye is left much stronger and more resistant to injury; 2) There is minimal change in refractive error because the patient's cornea is essentially intact; 3) Suture-related problems can be eliminated; and 4) Visual recovery is significantly faster and better.



Dr. Murchison

"DSAEK offers patients superior visual recovery and a less protracted clinical course than standard transplants," Dr. Murchison says.
"It is a great alternative for patients that are candidates for this new technique."

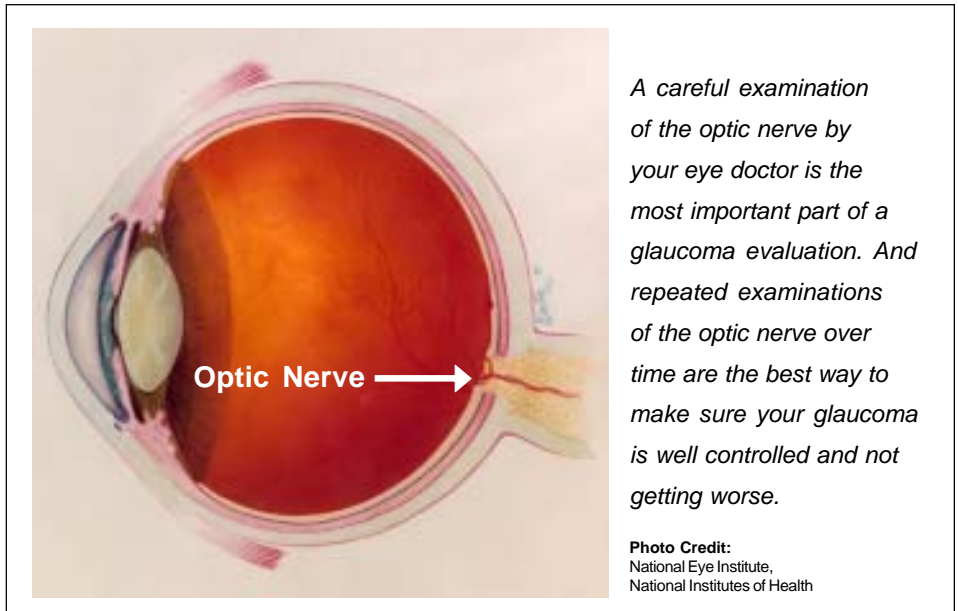
Optic Nerve Scans for Glaucoma

Glaucoma steals sight by damaging the optic nerve. The optic nerve connects the eye to the brain and carries vision information to the brain. When the optic nerve gets damaged, not all of the vision information gets to the brain. This can create blind spots in you vision. In glaucoma, these blind spots often merge together to form tunnel vision. If not treated, glaucoma can take away all of your vision.

A careful examination of the optic nerve by your eye doctor is the most important part of a glaucoma evaluation. And repeated examinations of the optic nerve over time are the best way to make sure your glaucoma is well controlled and not getting worse.

In order to detect any changes in your optic nerve, your doctor must keep track of your optic nerve's appearance at each examination. Some common ways to record the appearance of the optic nerve include drawings or photographs. Another way that your doctor can record the appearance of your optic nerve is with a computerized optic nerve scan.

An optic nerve scan is a new and advanced method of evaluating the optic nerve. The test is simple and painless, and only takes a short time to perform. While resting your chin on the machine's headrest, the computer-guided device will scan the back of your eye without ever touching your eye. Each scan will only take a few seconds, and your doctor may obtain more than one scan to ensure that the



information obtained from the scans is of high quality.

Once the scan is complete, a computer will analyze the data and compare your optic nerve to a database of normal optic nerves stored in its memory. A printout from the machine will tell your doctor if your optic nerve measurements are likely to be normal or if they look more like glaucoma. In this way, the optic nerve scan can play a role in making the diagnosis of glaucoma.

Once you have been diagnosed with glaucoma, your doctor may perform optic nerve scans periodically to see if

An optic nerve scan is a new and advanced method of evaluating the optic nerve.

you are stable or getting worse. If you have had previous optic nerve scans, the computer will compare your scan to your old scans to determine if any of your optic nerve measurements have gotten worse over time.

There are several optic nerve scanning systems available. They are similar in many ways, and different in some ways as well. They all provide measurements of the optic nerve, but each provides different kinds of measurements. Some measure the shape and contour of the optic nerve, while others measure the thickness of the nerve tissue surrounding the optic nerve. All have been thoroughly researched and found to be useful in detecting glaucoma. And most insurance programs cover optic nerve scans performed on an annual basis.

Optic nerve scans are a new tool your doctor can use both to tell if you have glaucoma, and to make sure that your treatment is working to prevent further optic nerve damage and loss of sight. If you have questions about optic nerve scans, your doctor will be happy to discuss them with you.

The Importance of Routine Eye Examinations

We often seek medical attention if our eyes hurt, or turn red, or if our vision becomes blurry. But we don't often get our eyes examined regularly if we are not having any problems with them. Routine eye examinations are important even if our eyes and vision are fine—because many blinding eye diseases have few or no warning signs until they have taken away some or all of our vision.

The most common cause of blindness in the United States is diabetic eye disease. In the early stages, when it is most easily treated, diabetic eye disease has no symptoms. The only way for a diabetic to know if he or she has diabetic eye disease is to get routine eye examinations at least once a year.

The second most common cause of blindness in the US is glaucoma. Glaucoma is called the silent thief of sight because it has no symptoms at all until the disease is very advanced. And in glaucoma, once vision is lost, it can never be regained, so finding it in the advanced stage is often too late to save the sight. Glaucoma is common in older adults, but can occur at any age. The only way to know if you have glaucoma is to have a comprehensive eye examination on a regular basis.

The most common cause of blindness among Americans over age 50 is age-related macular degeneration. In the early stages of macular degeneration, treatments can be used to prevent the disease from getting worse. But the early stages of macular degeneration have no symptoms. The only way to know if you have early macular degeneration—and to start treatment to prevent it from getting worse—is to

have routine eye examinations even if your eyes seem fine.

These are just a few of the eye diseases that can blind you without your even knowing you have them. To be safe, you should have a thorough eye examination on a regular basis to be sure your eyes are as healthy as you think they are. Finding eye diseases as early as possible gives you the best chance of saving your sight.

How often should you have a routine eye examination? Children should have their first examination, including a measurement of vision, before they begin kindergarten. Their vision should be measured at least every few years to make sure that sight is developing normally. It is a good idea for teens to have a full eye examination before

beginning to drive, to make sure they will be safe behind the wheel. After that, adults should consider having an eye exam every year or two beginning at age 40, and at least once a year after age 50 when the blinding diseases listed above become more common.

There are a few exceptions to these guidelines. People with diabetes should have an eye examination every year starting when they are diagnosed with diabetes, no matter how old they are. And people who have relatives with eye diseases, such as glaucoma or macular degeneration, should have examinations once a year beginning as soon as age 30.



Photo Credit: National Eye Institute, National Institutes of Health

*Routine eye examinations are important even if our eyes and vision are fine—because many blinding eye diseases have few or no warning signs until they have taken away some or all of our vision. **Above**, a phoropter is a critical piece of equipment used during a routine eye examination.*

Meet the Baptist Eye Surgeons Team of Physicians

EXCELLENCE IN EYE CARE

All members of the Baptist Eye Surgeons physician team are board certified by the American Board of Ophthalmology.



Marc A. Bodenheimer, MD
*Cataract & refractive surgery,
corneal & external disease,
general ophthalmology*



L. Nichols Cook, MD
*Cataract & refractive surgery,
general ophthalmology*



Robert E. Hall, MD
*Cataract & refractive surgery,
general ophthalmology*



Albert K. Holmes, MD
*Cataract & refractive surgery,
cosmetic & general ophthalmology*



Mark Y. Ivens, MD
*Cataract & refractive surgery,
general ophthalmology*



James R. Kimble, MD
*Cataract, refractive & glaucoma
surgery, general ophthalmology*



J. Franklin Murchison, Jr., MD
*Cataract & refractive surgery,
corneal & external disease,
general ophthalmology*



Darin S. Smith, MD
*Cataract & refractive surgery,
general ophthalmology*



William R. Sullivan, MD
General ophthalmology

Baptist Eye Surgeons: Office Locations

Baptist Eye Surgeons at the Baptist Eye Institute
2020 Kay Street • Knoxville, TN 37920
Phone: 865-579-3920 • Fax: 865-579-3963

Baptist Eye Surgeons at the Tennessee Valley Eye Center
140 Capital Drive • Knoxville, TN 37922
Phone: 865-579-3920 • Fax: 865-579-3963