

iStent[®] for Glaucoma

Tiny device reduces or eliminates the need for medications in patients with both glaucoma and cataracts.

The iStent[®], the smallest implantable device that the FDA has ever approved, is a microsurgical implant placed at the time of cataract surgery that is designed to lower and control eye pressure in patients who have glaucoma as well as cataracts.



James N. McManus, MD
Gary J. Ganiban, MD
Michael N. Mandese, OD, FAO
Hetal D. Vaishnav, MD
Patricia K. LaFleur, MD
Jason K. Darlington, MD
Eric R. Straut, OD

The device represents the latest innovation in treating patients with glaucoma at the time of their cataract surgery, according to Jason K. Darlington, MD, a cataract surgeon and fellowship-trained cornea and glaucoma specialist at The Eye Institute for Medicine & Surgery.

"The iStent is highly effective, as it reduces eye pressure twenty-four hours per day. By continually maintaining a healthy eye pressure, the risk of suffering a loss of vision due to glaucoma is greatly reduced," reports Dr. Darlington, who has performed thousands of ophthalmic surgical procedures.

Device benefits

There are many benefits to reducing or eliminating the need for glaucoma eye drops, explains Dr. Darlington, who completed the prestigious Lindstrom Fellowship in cornea, refractive and glaucoma surgery under Dr. Samuelson, at the Phillips Eye Institute in Minneapolis. Dr. Samuelson was a thought leader and an integral participant in the FDA approval process of the iStent.

Over a period of years, glaucoma medications can cost many thousands of dollars. Additionally, there is often a burden placed on patients to use eye medications multiple times per day in an attempt to control their glaucoma. When compliance with medication regimens is less than ideal, a loss of vision may result.

Reducing or eliminating the need for glaucoma medications may also eliminate many side effects, such as redness, dryness, irritation and excessive eyelash growth.

"Patients and their families have a great sense of comfort knowing that the

iStent is working to maintain a healthy eye pressure twenty-four hours per day, often-times without the need for additional eye medications," explains Dr. Darlington. "Controlling eye pressure throughout the day and night on a continual basis leads to better long-term results."

The specific benefits of the iStent include placement at the time of cataract surgery, with no need for a second eye surgery; no additional recovery time or medications outside of the standards for cataract surgery, virtually no risk as compared to more complex valve or tube surgeries for glaucoma, and substantial financial savings relating to glaucoma medications.

"In my experience, the need for fewer medications makes for happier patients," states Dr. Darlington, who has performed research utilizing a double-mirrored lens to facilitate the placement of the iStent at the time of cataract surgery. "The goal of my research is to help ophthalmic surgeons all over the world bring the iStent technology to their patients.

"My hope is that by doing so, we may help many thousands more patients enjoy a lifetime of good vision and spare them from suffering the debilitating effects of vision loss associated with glaucoma," Dr. Darlington states.

Early detection key

The key to achieving a successful outcome with respect to glaucoma management is early detection of the disease and appropriate therapy, according to Dr. Darlington.

"Glaucoma is known as the *sneak thief of sight* because, in most cases, it is a symptomless disease process until a great deal of vision has been lost," he explains. "This is why a thorough, dilated, annual, eye examination by your optometric physician or ophthalmologist is critical. Your eye doctor can assess the various structures inside of your eyes and determine if you are at risk."

Some of the key measures doctors consider when determining if a patient is at risk for glaucoma include: family history; eye pressures, taken by *applanation* (observation of the cornea); appearance of the patient's optic nerves, the patient's corneal thicknesses; computerized, three-dimensional analysis of the patient's retinal nerve fiber layers; computerized analysis of the patient's visual field and the communication between the brain and the optic nerves, and analysis of the depth of the anterior chambers of the eyes.

"I am sometimes asked by patients if all of these tests are necessary," observes Dr. Darlington. "It is my strong belief that vision is one of the greatest gifts that many of us have received. Vision that is lost to glaucoma is not recoverable. Because of this, I want to do everything in my power to help each of my patients see the best they possibly can so that they can live vibrant, full and independent lives."

Some people are at greater risk than others for developing glaucoma, advises



iStent is a microsurgical implant that lowers and controls eye pressure in patients with glaucoma and cataracts, eliminating the need for eye drops to control the condition.

Dr. Darlington. Those at greater risk include people over age 40, women, people who are nearsighted, those who suffer from diabetes; people of African, Asiatic, Hispanic or Northern European ancestry; people with a close blood relative who has the condition and people who regularly use steroids, such as those on chronic pain medications or inhalers for asthma.

Optimizing outcomes

One of the most frequent conditions that patients seek Dr. Darlington's expertise for is cataracts.

"Having cataracts represents a once-in-a-lifetime opportunity to improve and optimize your vision," states Dr. Darlington. "In many cases, my colleague Dr. James McManus and I can help turn back the hands of time and restore a patient's vision, making it similar to the way it was, not just before the person had cataracts, but like it was before they needed reading glasses due to age-related changes."

Restoring and optimizing vision to this level requires the use of special, high-technology lens implants at the time of cataract surgery. Not every patient is a good candidate for these lenses, but for those who are, the vision and independence that they achieve are often described as *life-changing*.

For other patients, the greatest challenge to achieving excellent vision, once cataracts have developed, is astigmatism – an irregular curvature of the cornea.

"Depending upon the amount of astigmatism that a patient has, Dr. McManus and I can recommend correction either via a specialized astigmatism-correcting lens implant, known as a *Toric intraocular lens*, or we

may suggest limbal relaxing incisions be placed," states Dr. Darlington.

These incisions, made directly on the patient's cornea – the outer window of the eye – bring images into focus for many patients who have a low-to-moderate degree of astigmatism.

With astigmatism corrected or largely eliminated, some of these patients are able to see clearly for the first time in their lives without the use of eyeglasses or contact lenses.

"The vast majority of my patients experience a dramatic improvement in their vision following cataract surgery," states Dr. Darlington, who utilizes the latest high-technology lens implants and techniques when performing cataract surgery.

Dr. Darlington, who has extensive experience performing cataract and glaucoma surgery as well as corneal transplants and refractive eye surgery, is available to see new patients at his offices in Rockledge, Melbourne and Palm Bay. Consultations may be arranged by calling **(321) 722-4443. FHCN**

This article was submitted by The Eye Institute for Medicine & Surgery

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**. There are three offices to serve you: **1995 W. NASA Blvd. in Melbourne, 150 S. Woods Drive in Rockledge and 5055 Babcock Street NE in Palm Bay.**



Jason K. Darlington, MD, graduated with highest honors from the University of California Davis. He attended UC Davis Medical School, followed by an internship at Scripps Mercy Hospital in San Diego. He completed his residency in ophthalmology at UC Davis, where he piloted research on laser vision correction and wavefront technology. Dr. Darlington then earned a fellowship in advanced anterior segment surgery at the prestigious Phillips Eye Institute in Minneapolis. He joined the staff at The Eye Institute for Medicine & Surgery in 2015.

To schedule an appointment with one of the 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.