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Boston Eye Group

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Patients of all Ages



The Boston Eye Group

State-of-the-Art Procedures Aimed at Reducing Dependency on Eye Glasses for Patients of all Ages

By Kathryn J. Siranosian, MS

Not all that long ago, eyeglasses were considered an inevitable part of aging. After all, plenty of research has shown that once the human eye has functioned for about 45 years, or so, it typically begins to deteriorate. The lens becomes less elastic, making it harder to focus for reading or close-vision tasks. Moreover, older eyes are prone to other degenerative conditions, such as glaucoma, cataracts, and age-related macular degeneration.

These days, though, the field of ophthalmology is in the midst of nothing short of a revolution. New surgical procedures, high-tech intraocular implants (IOLs), and other innovative breakthroughs mean that today's aging baby boomers are not necessarily destined for dependency on bifocals, reading glasses, and the like.

In fact, ophthalmologists at the Boston Eye Group now provide a wide spectrum of eye care services. Practitioners include Samir Melki MD, PhD, Mahnaz Nouri MD, Kameran Lashkari MD (Retinal Specialist), Julia Chang OD (Contact lens services) and

Dan Townsend MD (Oculoplastics and orbital specialist).

These services include not only routine exams and retinal consultations, but also specialized surgical procedures, such as LASIK, LASEK, refractive lens exchange, and cataract surgery.

It's this wide range of state-of-the-art services that distinguishes the Boston Eye Group from other eye care providers in the area, explains board-certified ophthalmologist Samir Melki, MD, PhD, who founded the group in 2000 and now serves as its director. Dr. Melki, who is also an attending physician at the Cornea and Refractive Surgery Service at the Massachusetts Eye and Ear Infirmary, says patients at the Boston Eye Group receive a "continuum of care," based on individualized treatment plans designed to adapt to a patient's changing needs and expectations.

"At the Boston Eye Group, we offer it all," Dr. Melki says. "That turns out to be a big advantage to patients because they can come here for all aspects of their eye care and know that we'll

work together with them if their needs change as they age."

Because of the variety of treatment options currently available, a patient's first visit to the Boston Eye Group generally includes a detailed consultation during which the treating ophthalmologist explains how today's advanced eye surgeries can significantly diminish dependence on glasses. For instance, while many cataract patients are familiar with traditional cataract surgery that replaces cloudy lenses with monofocal IOLs, most are unaware that new presbyopic IOLs are also now available. In addition, patients may not know that after their cataract surgery, ophthalmologists at the Boston Eye Group can offer laser-assisted surgical procedures to correct astigmatism.



Dr Melki performing biomicroscopy with simultaneous digital imaging.

Photo by Debra Troyanos

“We ask patients how important it is for them to be less dependent on glasses,” Dr. Melki says. “Some older patients have been wearing glasses for 40 years, and they really don’t mind it, at all. Others, would really like to use their glasses less. We work with our patients to find the solution that best meets their needs. For cataract patients, that means discussing new implants and the possibility of combining new implants with LASIK.”

LASIK. Ophthalmologists at the Boston Eye Group routinely use LASIK (short for laser-assisted *in situ* keratomileusis) surgery to correct nearsightedness, farsightedness, and astigmatism. The most common type of laser eye surgery, LASIK accounted for 87 percent of all laser eye procedures in the U.S. last year.

During a LASIK procedure, the ophthalmologist cuts a tiny flap at the top of the cornea. Then, the flap is folded back so that a laser can be used to re-contour the corneal tissue underneath. The cornea is reshaped so that it focuses light directly on the retina, improving visual acuity.

Over the past decade, improvements to both LASIK instrumentation and techniques have made the procedure remarkably accurate and safe, Dr. Melki says. In fact, patients typically have clearer vision by the next morning following the surgery, and these days, the overwhelming majority suffers no, or only minor, complications.

Still, as Dr. Melki points out, LASIK – like any surgical procedure -- does involve risks, and patients do have to meet certain criteria. For instance, before recommending any laser eye surgery, ophthalmologists must evaluate the shape and thickness of



Former baseball great Dom DiMaggio with Dr. Melki after having cataract surgery at the Boston Eye Group.

Photo by Debra Troyanos

the patient’s cornea, the size of their pupil, and the level of their prescription.

“We also gauge the level of expectation,” Dr. Melki adds. “I tell them that if they’re wearing glasses 100 percent of the time, it’s likely they could drop down to somewhere around zero percent. Of course, it could be zero percent, but I don’t want them going in to the procedure thinking only zero.”

LASEK. Some patients now opt for LASEK, a newer version of photorefractive keratectomy (PRK), to correct their nearsightedness, farsightedness, or astigmatism. As with the LASIK procedure,

during LASEK (laser epithelial keratomileusis), ophthalmologists use a laser to reshape the cornea. However, rather than cut a flap for access to the corneal tissue, they apply dilute alcohol to the surface of the eye, and then simply peel the surface epithelium to the side. Once the laser treatment is complete, the epithelial layer is replaced. LASEK is generally considered safer than LASIK because it does not involve a corneal flap, Dr. Melki says. However, LASEK does have a downside: the epithelial takes days – sometimes as long as a week, or more-- to heal.

“With LASEK, patients don’t have the ‘wow’ effect of LASIK, where you wake up the next day and you see well,” Dr. Melki says. “These are things that we talk over with patients, so that they can make



The Boston Eye Group physician team includes (from left to right): Sam Melki MD PhD, Julia Chang OD, Mahnaz Nouri MD, Dan Townsend MD and Kameran Lashkari, MD (missing from photo)

Photo by Holly Reville

an informed decision that's best for them.”

Surgically implanted lenses. Patients with extreme nearsightedness (in the range of -15 to -20) are not suitable candidates for either LASIK or LASEK surgery. Instead, the Boston Eye Group can now offer these patients an innovative, cutting-edge option: surgically implantable lenses (also called phakic IOLs).

These implants, which resemble contact lenses, function like

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glasses, except they do so from within the eye. Ophthalmologists place the implantable lens without removing corneal tissue or the patient’s natural lens. While this procedure is currently only available to treat myopia, clinical trials are underway with implantable lenses to correct farsightedness and astigmatism, as well.

A patient who is older than age 55, and who has not yet developed cataracts, may opt for yet another type of eye surgery, a refractive lens exchange. This procedure is ideal for a far-sighted patient whose prescription is too high for LASIK or LASEK. During a refractive lens exchange, ophthalmologists at the Boston Eye Group remove the patient’s lens and replace it with an implant.

“Not only will patients with refractive lens exchange enjoy distance vision, again – they’ll never develop cataracts, ei-

ther,” Dr. Melki says.

Advances in cataract surgery. By age 65, about half of us will begin to develop cataracts, so it’s no surprise that cataract surgery is the most frequently performed surgery in the U.S., with more than 1.5 million procedures completed each year.

Traditionally, cataract surgery involved replacing a patient’s cloudy lens with a monofocal IOL. While these im-

plants generally afforded good visual assistance, after the surgery, most patients still required reading glasses to correct nearsightedness.

These days, the Boston Eye Group offers cataract patients new implants that can both restore vision *and* decrease their

dependence on glasses. These presbyopic implants are available in two types: a multi-focal version that has different zones for different sight distances, or a so-called accommodating version, that actually moves with the muscles in the eye to provide better vision for close-up tasks.

Over the past few years, the Boston Eye Group has emerged a regional leader in the use of these new implants for cataract patients. Dr. Melki routinely performs about 800 cataract surgeries each year, and about 20 percent of those now involve presbyopic IOLs.

Last year, the Boston Eye Group surveyed about 60 of their cataract surgery patients who chose presbyopic IOLs. A whopping 98 percent were satisfied with the newer implants, Dr. Melki says. Plus, more than half of the respondents said

they no longer need to wear glasses, at all, and over 80 percent said they wear glasses only rarely.

“The results have been quite good,” Dr. Melki says. “Patients are very happy. It really makes them quite independent from glasses.”

Of course, because the Boston Eye Group makes customer satisfaction a priority, ophthalmologists there continue to work with patients to fine-tune any procedures, he continues. Some patients may choose a laser-assisted surgery to further enhance their vision following cataract surgery.

“Lots of places offer cataract surgery, but very few can do LASIK, too,” Dr. Melki says. “At the Boston Eye Group, we offer the latest advances to help our patients see better without glasses.”



Dr. Melki in the Laser Vision Correction suite on Beacon Street.

Photo by Debra Troyanos