



★ The Aging Eye ★

by Dr. Susan Fromer

The leading causes of vision impairment and blindness in the U.S. are primarily age-related eye diseases (age 40 and older). The number of Americans at risk for these eye diseases is increasing as the baby boomer generation ages. Visual acuity declines somewhat with age, even in normal healthy eyes.

It is important to note that, the following conditions commonly affect the aging eye.

- Floaters
- Presbyopia
- Cataracts
- Glaucoma
- Diabetic retinopathy
- Macular degeneration

FLOATERS are tiny specks, lines or webs that appear to float in our vision. They are a result of a change in the vitreous gel and the vitreous attachment to the retina. With age, the vitreous gel may condense and shrink, forming fibers and strands which are viewed as floaters or spider webs in the visual field. Sometimes the vitreous shrinks and detaches from the retina. The shrinking or detachment may cause floaters, flashing lights, and in rare instances a retinal hole or tear.

While floaters and flashes are common, the patient must always be checked to rule out an associated retinal hole or tear.

PRESBYOPIA refers to a progressive loss of the ability to focus on near objects. The crystalline lens inside the eye is responsible for adjusting the focus from a distant point to a near point. As the lens ages, it becomes less flexible and its shape can no longer be changed to adjust for near vision.

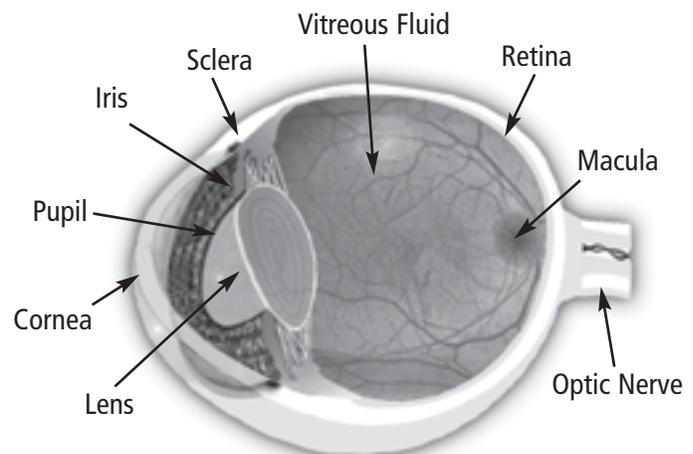
Presbyopia generally starts developing after the age of 40. Patients typically complain of an inability to read clearly, that their arms aren't long enough or that they tire easily while doing near work or reading. This is easily remedied by the use of reading spectacles.

CATARACTS are the leading cause of blindness worldwide. A cataract is a clouding and yellowing of the natural lens in the eye and reduces visual acuity, producing blurred and hazy vision, loss of contrast, increased sensitivity to glare, and difficulty reading. As the lens becomes more yellow over time, colors may not appear true.

Factors that increase the risk of cataracts: age, UV exposure, smoking, high cholesterol, diabetes, eye trauma, and long term steroid use.

Treatment: A cataract is removed under local anesthesia with a small ultrasound or laser hand piece. The lens is then replaced with an acrylic or silicone lens implant.

THE HUMAN EYE



GLAUCOMA refers to a diverse group of eye diseases sharing the common feature of progressive damage to the optic nerve. Optic nerve damage diminishes peripheral vision initially and if left untreated may reduce central vision. Ultimately, blindness will result if the disease is untreated.

Symptoms: Unfortunately, glaucoma is often (but not always) asymptomatic until late in the disease. Initially a patient will experience a subtle loss of contrast, difficulty driving at night, loss of peripheral vision, and then blindness in late-stages of glaucoma.

Glaucoma used to be thought of as a disease of high pressure in the eye causing optic nerve damage. We now know that up to 1/3 of patients have "normal" intraocular pressures. In these patients, it is conjectured that the disease is a result of poor blood flow to the optic nerve.

Risk factors: elevated intraocular pressure, family history of glaucoma, African or Hispanic heritage, advanced age, cardiovascular disease, diabetes, myopia (near sightedness), hypertension (far sightedness), and a history of migraine headaches.

There are several ways to treat glaucoma; eye drops, laser, and surgery.

DIABETIC RETINOPATHY is the leading cause of acquired blindness among Americans under the age of 65. In a great majority, this blindness can be prevented.

Diabetes affects the small blood vessels of the retina. The blood vessels can become leaky, leaking blood, fluid or lipid deposits. The capillary networks can become blocked and drop out

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altogether, resulting in an inadequate supply of blood to the retina. Abnormal blood vessels, called neovascular blood vessels, may form, causing vitreous hemorrhage and ultimately a retinal detachment.

Symptoms include blurred vision of gradual onset or a sudden vision loss as seen with a vitreous hemorrhage.

Education is the key to the prevention of severe diabetic eye disease. There is a very clear association between tight glucose control and healthy retinas. If retinopathy does develop, the patient can still be managed well with frequent visits to the eye doctor and good glucose control.

MACULAR DEGENERATION or age related macular degeneration (AMD) is the leading cause of legal blindness in the elderly Caucasian population.

It is a degenerative condition of the central retina—the macula, which is responsible for sharp central vision. As such, it typically affects central vision. There are two types of macular degeneration, dry and wet. In the more mild form, dry macular degeneration, the disease causes a gradual loss of detail vision, visual distortion and the need for more light. Vision loss is moderate and slowly progressive. In the late stage of dry AMD there may be significant retinal scarring and significant visual loss. In wet macular degeneration, which is more severe, the disease may result in a central blind spot and sudden severe vision loss can occur due to leaking from abnormal blood vessels. The dry form is more common, affecting 90% of those with macular degeneration.

RISK FACTORS include advancing age, UV exposure, family history, high myopia, smoking, hypertension and nutritional factors.

Recent studies suggest that antioxidants and vitamins may play a role in slowing the development of the disease. The vitamins studied included the following: vitamin C, vitamin E, carotinoids, zinc, chromium, selenium, and l-glutathione. However, research suggests vitamins have no effect in preventing the disease in healthy individuals

Macular Degeneration Treatments:

FDA approved Treatments of wet macula degeneration

Visudyne is a light-activated drug therapy administered every three months. The treatment only takes about 30 minutes. This new drug destroys the abnormal blood vessels which cause loss of vision. The procedure is relatively painless, does not require general anesthesia and is performed as an outpatient procedure.

Macugen is a medicine that is injected every six weeks. It is the first anti-vascular endothelial growth factor therapy shown to help reduce the risk of vision loss. Macugen treatment is performed as an outpatient procedure.

LUCENTIS is a anti-vascular endothelial growth factor therapy medicine that is injected once a month but the treatment may be reduced to one injection every three months after the first four injections. Treatment is performed as an outpatient procedure.

New treatment under FDA Clinical Trails

Avastin is a new anti-vascular endothelial growth factor therapy medicine that is injected every six weeks, at this time it is not FDA approved but it is covered by Medicare. Treatment is performed as an outpatient procedure.

Concluding statements

Blindness and vision impairment represent a significant emotional and financial burden. It is estimated that the cost to the federal government annually for benefits and lost taxable income is more than 4 billion dollars.

Diseases of the aging eye are an enormous health problem. With proper care however, people can be helped to avoid the devastating affects of ocular disease.

Fromer Eye Centers... one of only four test sites world wide

Fromer Eye Centers is a principle investigator in the diagnostic use of the new technology developed by Heidelberg instruments for the early detection and treatment of diabetic macular edema, and age related macula degeneration.

We are excited and proud to bring these advances to the neighborhood in an effort to offer patients the best care available.

★ Walk To Cure Diabetes

On a rainy and windy Sunday morning, co-workers, family and friends of Fromer Eye Centers laced up their sneakers to participate in the Juvenile Diabetes Research Foundation (JDRF) Walk, at Battery Park in Lower Manhattan. "The "event" was a great way to bring everyone together for a fun filled day and raise money to find a cure," said Ladan Anavim, Outreach Manager for Fromer Eye Centers.

Fromer Eye Centers' team raised \$3000 towards this very important cause.

To learn more about the foundation go to www.jdrf.com



The participants started in Battery Park and walked 12 kilometers (7.2 miles), over the Brooklyn Bridge, onto Cadman Plaza into Brooklyn Heights, and finally back over the bridge to return to Battery Park.



Effort is what you control,
Respect is what you earn
Tradition is what you honor...
Go Rangers!

National Hockey League Update;

Traditionally at the start of every season Dr. Mark Fromer and Dr. Susan Fromer visit the New York Rangers at the Ranger Training Center to give the team a complete eye examination. On September 14, 2006 Dr. Mark Fromer and



Dr. Susan Fromer spent the day with the players to help them prepare for another grueling season.

*From left to right;
Dr. Susan Fromer, N Y
Ranger's head coach
Tom Renney, and
Dr. Mark Fromer*

Eyeglasses, where Fashion Meets Function

Eyeglasses look simple but can be quite complex. Selections like thin lightweight lenses, multifocal designs, lens coatings and choosing the right frame to feel comfortable, look great and be durable, all at the same time can be complicated. Only a highly qualified eye care team can help you choose exactly the right combination for your eyes and your lifestyle.

Ask your optometrist what is best for you.

Media

Channel 12 News, Bronx

• On **June 19th, 2006** News 12 Bronx featured Fromer Eye Centers' **Dr. Mark Fromer**. He spoke about the extreme importance of sunglasses with 100% ultraviolet protection that includes both UVA and UVB.

"Many people think sunglasses are just for fashion. They aren't. They are mainly for protection. The main things we try to protect against with sunglasses are cataracts, macular degeneration, growths on the cornea (Pterygium) and skin cancer of the lids," said Dr. Mark Fromer.



WB11 News, New York

• On **July 3rd, 2006** WB11 featured Fromer Eye Centers' **Dr. Mark Fromer**. He spoke about the extreme importance of sunglasses with 100% ultraviolet protection that includes both UVA and UVB.

"In the short-term, people who spend long hours on the beach without adequate eye protection can develop photokeratitis, which is a reversible sunburn of the cornea. It's painful and can result in temporary loss of vision.

• On **July 10th, 2006** WB11 News interviewed **Dr. Mark Fromer** regarding the latest research on cigarette smoking, macular degeneration and its contribution to blindness in America.

"Smoking specifically can damage the blood vessels and the tissues of the retina which are extremely vascular. In addition there can be decreased oxygen, which can damage the retina as well. People who stop smoking still have an increased risk of developing macular degeneration. Right now we eat a lot of processed foods leading to obesity. We need to eat omega three fatty acids to reduce tissue damage allowing more oxygenation to our tissues and to help repair the cells in our body," said Dr. Fromer.



Educational Engagements

- **12/21/05**, Dr. Susan Fromer lectured to thirty medical residents and interns at North Shore University Hospital in Forest Hills on "The Aging Eye and the leading causes of vision impairment and blindness in the United States."
- **2/8/06**, Dr. Mark Fromer and Dr. Susan Fromer conducted a COPE lecture (Council on Optometric Practitioner Education) for a group of sixty optometrists on "The latest in cataract surgery and The Aging Eye". The dinner program took place at the Red Eye Grill restaurant in Manhattan.
- **3/7/06**, Dr. Mark Fromer lectured to primary care physicians on "Differential Diagnosis and Treatment of the Red Eye". The dinner program took place at Roberto Restaurant in the Bronx.
- **3/10/06**, Dr. Susan Fromer lectured to fifty seniors at Lenox Hill Senior Center in Manhattan on "Normal changes in the Aging Eye".
- **5/2/06**, Dr. Susan Fromer conducted a COPE lecture (Council on Optometric Practitioner Education) for a group of thirty optometrists on "Red Eye". Dr. Mark Fromer followed with a presentation on unique surgical cases to the optometrists. The lecture took place at Portofino Restaurant in Forest Hills.
- **5/31/06**, Dr. Mark Fromer lectured to the primary care physicians and nurses at Promesa Health Center in the Bronx on "Diabetic Retinopathy" and the latest diagnostic equipment available in the treatment and monitoring of these patients.
- **9/21/06**, Dr. Mark Fromer lectured at Fidelis Health Plan's Headquarters in Forest Hills. Fifteen nurse practitioners attended the lecture on diabetes and the leading causes of acquired blindness among Americans and how it can be prevented.

Our Vision is Your Vision

Administrator's Corner:

Our Present and Future Outlook

It gives great pleasure to share with our patients and the physician community our goals and accomplishments since our last newsletter.

Fromer Eye Centers is one of only four beta sites world wide for the latest diagnostic software developed by Heidelberg Engineering for retinal tomography. Over the next year, we will be utilizing state-of-the art software to explore new diagnostic technology for diabetic retinopathy and macular degeneration. We are excited and proud to bring these advances to the neighborhood in an effort to offer the best ophthalmic care to our patients.

We have recruited two optometrists - Dr. Julia King and Dr. Elizabeth R. Borowiec. Both clinicians participate in the treatment and co-management of ocular diseases with our ophthalmologists. Offering week day and Saturday hours in our Bronx and Manhattan offices, both optometrists are a welcome addition to Fromer Eye Centers.

Looking towards the future, we have begun testing our new electronic medical record system. The new system will

allow our physicians to have 24/7 access to patients' medical records. We are expected to go live with the new system in early fall of 2006.

Continuing education is an important component of professional development for our staff. Our technicians are currently preparing for the national exam to be certified ophthalmic assistants. Certification is not a requirement, but an assurance to our patients that our staff is knowledgeable and competent in ophthalmic care.

We look forward to providing you the excellent eye care you deserve. – Ian D. Maltzman, M.H.S.A.

Doctor's Note:

Once again I would like to extend my thanks for your confidence in the eye care services that we continue to offer. It is our mission to bring to our patients the most advanced technology science has to offer in a compassionate manner. We will continue to educate our staff and stay on medicines' cutting edge to maintain your ocular health.

Sincerely – Mark D. Fromer, M.D.

Diabetic Retinopathy • Sutureless Cataract Surgery • Glaucoma • Macular Degeneration
Age Related Diseases of the Retina • Laser Vision Correction • Botox

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