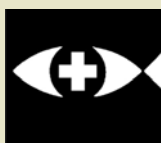




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MECA

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The physicians and staff of MECA Eye and Laser Center have been serving patients and physicians since 1968. We have six physicians, one optometrist and a staff of highly trained ophthalmic assistants, nurses and surgical technicians.

The Benefits of Omega-3 Fish Oil

How many times have you heard that Omega-3 fatty acids are good for you? Presently, both conventional and alternative medicine seem to agree on how wonderful its many health benefits are. But many health experts and researchers believe that omega-3 fatty acids are the one essential nutrient most missing in our modern day diet.

Our bodies require a tremendous amount of omega-3 fatty acids to function properly.

Our bodies require a tremendous amount of omega-3 fatty acids to function properly. In fact, a large portion of the human brain is made up of fats (60%), and approximately half of that fat is DHA omega-3. Unfortunately, the human body can not produce it so it must be obtained through diet. You know how there are good types of fat and bad types of fat? Omega-3 polyunsaturated fat is the really good kind. Fish just



happens to be the best and most abundant source of such fat. Fish oil is a very effective nutrient as it contains

two very important omega-3 fatty acids that can be absorbed quite easily. These two fatty acids are EPA (eicosapentaenoic acid) and DHA (docosahexaenoic acid) which are the building blocks for all the cells in our vital organs and we need these nutrients to function with health and wellness.

Why are omega 3 fatty acids so vital for good health?



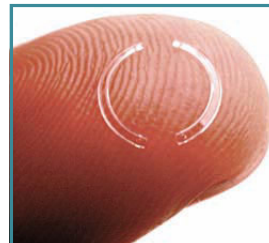
Let's compare the human brain to an automobile. A car will not run without fuel. Well, our brain is powered or fueled by fats. These fats play a crucial role in brain function as well as normal growth and development for optimal health, energy and longevity.



(Continued on page 3)

Intacs for Keratoconus

Keratoconus is a progressive eye disease that causes the cornea or the clear front surface of the eye to become thin and unstable. Treatment is usually rigid contact lenses used to reshape and flatten the pronounced curve of the bulging cornea thus improving vision. Laser vision correction surgery is not an option for patients

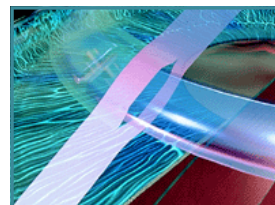


Intacs rings

with keratoconus. Once a keratoconus person's vision deteriorates to the point that contacts or glasses are no longer suitable, the only option held out for them was a corneal transplant. That

is until Intacs!

In 2004 FDA approved Intacs to be used for treating keratoconus. Intacs are thin semi-circular plastic rings inserted into the mid layer of the cornea. The goal of inserting these rings is to flatten the cornea, thus changing the shape and location of the cornea, while eliminating some or all of the irregularities caused by this disease so that vision may be improved.



Intacs inserted into the mid layer of the cornea

If you or some one you know has keratoconus it is important to find out what your options are with a trained eye care professional in order to receive the best possible advice and treatment.



Intacs in eye

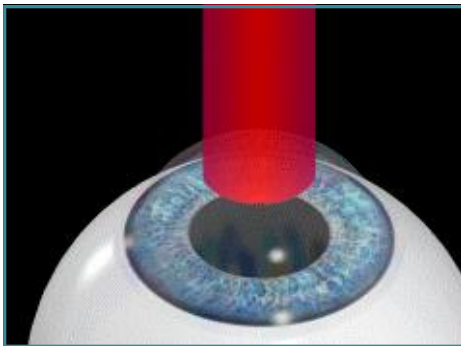
♦ ♦ ♦ ♦

Laser Vision Correction Surgery

Imagine waking up every morning and actually seeing the world. Or opening your eyes in a swimming pool and seeing clearly. How possible is it to jog in the rain or play with your children without having to worry about contacts or glasses? Laser vision correction surgery is an alternative to eyeglasses and contact lenses that can help a person see more naturally.

Laser vision correction surgery, uses 3-dimensional measurements of how your eye processes images to guide an excimer laser in re-shaping the front part of the eye (cornea). This causes the focusing power of the eye to change. For nearsighted people, the goal is to flatten the too-steep cornea; with farsighted people, a steeper cornea is desired. Astigmatism can be corrected by smoothing an irregular cornea into a more normal shape.

The excimer laser was developed in the 1980s and since 1995 millions of individuals have benefited from laser correction eye surgery. The excimer laser is so precise it takes 200 pulses to cut through a single eyelash. Due to the development of computers, the excimer laser can be programmed to remove, with great precision, the amount of tissue needed (approximately 1/10th the width of a human hair) to achieve the desired result. There are two procedures that are used with the excimer laser: PRK and LASIK.



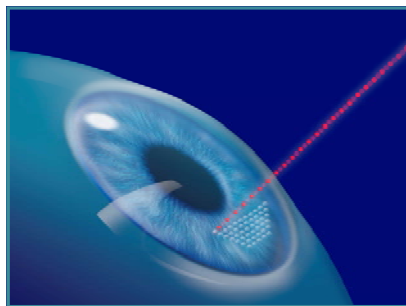
PRK excimer laser surgery

Photorefractive Keratectomy or PRK takes place on the surface of the cornea. The cornea is protected by a top layer called epithelium. In order to reshape the corneal surface with the excimer laser the epithelium has to be removed. Like skin that heals

from a scratch, epithelium will heal back over the cornea in a few days. Once the excimer laser has reshaped the cornea by removing microscopic amounts of tissue from the corneal stroma a clear bandage contact is used to help reduce irritation and encourage healing of the tissue.

LASIK stands for “laser-assisted in situ keratomileusis. The component words of LASIK are defined as follows:

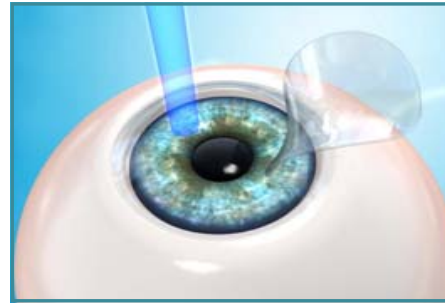
- LASer-assisted – the excimer laser performs
- In situ – after a flap of corneal tissue has been lifted laser sculpting is performed on the cornea
- Keratomileusis – means



Intralase laser creating a flap

corneal reshaping

Similar to PRK in that the cornea is reshaped with an excimer laser, the surface of the cornea remains largely intact so that



Flap lifted - LASIK surgery

LASIK patients are more comfortable and see better more quickly. A corneal flap is created by means of the Intralase method. Intralase is a laser that uses pulses of light to create the corneal flap. This laser creates thousands of rows of bubbles within a certain

depth in the cornea. The flap is then lifted, the cornea is reshaped with the excimer laser, and then the flap is securely repositioned or “locked” back into place.

The surgeons at MECA perform PRK and LASIK using the wavefront-guided technology. Wavefront technology is quite innovative in that it has the potential to improve not only how much one can see (vision measured by the standard 20/20 eye chart), but also how well one can see, in terms of contrast sensitivity and fine detail. Did you know that wavefront technology was first developed for high-powered telescopes? It sharpened the image of distant stars due to distortion by the earth’s atmosphere. Wavefront technology works by measuring the



Wavefront System

distortions or irregularities of the eye, known as lower- and higher-order aberrations. When a ray of light first enters the eye, it passes through the cornea to the lens and vitreous, ultimately reaching the retina. As this light bounces off the retina and returns back through the cornea, the wavefront analysis detects and documents these irregularities displayed as a 3-D map, referred to as a wavefront map. Wavefront maps are unique to each individual; like fingerprints, no two corneas or corneal maps are the same. The excimer laser uses these map guides to customize the treatment in reshaping the eye’s corneal surface so that these irregularities can be corrected more accurately and with fewer side effects.

PRK and LASIK have been improving vision and individuals lifestyle to the point of that many sing the praises of laser vision correction surgery as “truly amazing”.



MECA has served Memphis and the surrounding communities for over 40 years. We were here yesterday, and we will be here tomorrow.

The Benefits of Omega-3 Fish Oil Continued from page 1)

If the brain isn't getting enough fuel or omega-3 fatty acids, then it will not run properly. When there is not enough fuel the brain can begin to suffer from ailments and/or diseases.

Studies show strong evidence that omega-3 fatty acids from fish oil can slightly lower blood pressure and triglyceride levels. Other health benefits, just to name a few, of fish oil are:

- Decrease high cholesterol
- Reduce the risk of heart attack or stroke
- Protect against atherosclerosis
- Reduce the risk of blood clots
- Help decrease dryness in eyes
- Help alleviate the symptoms of depression and anxiety
- Improve symptoms of ADHD
- Reduce inflammation
- Help battle against cancer
- Reduce symptoms of arthritis

• And the list goes on

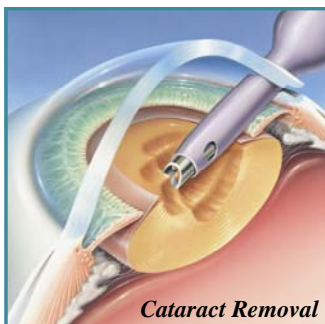
The American Heart Association recommends eating fatty fish such as salmon, mackerel, herring, lake trout, sardines or albacore tuna at least two times a week. These particular fish are high in omega-3 fatty acids. Vegetarians' may prefer soybeans, tofu or walnuts. Although



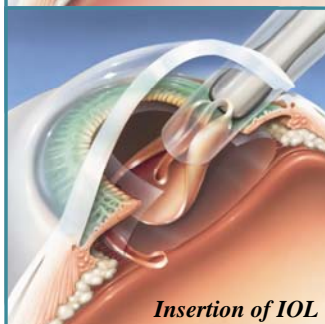
the preferred method of increasing omega-3 fatty acid is in the consumption of foods, fish oil supplements have proven to be quite helpful and beneficial also.



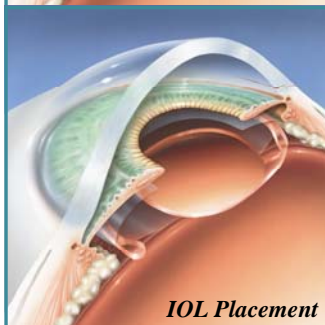
Toric IOLs for Astigmatism



Cataract Removal



Insertion of IOL



IOL Placement

The natural lens in ones eye plays a vital role in focusing light for clear vision. The implantation of an artificial lens or intraocular lens (IOL) at the time of cataract surgery is required to produce the best visual results. Upon the removal of the natural lens, an IOL is placed in or near the original position resulting in restored vision.

Individuals with astigmatism can have a very difficult or frustrating time seeing clearly even with the aid of contact lenses or eye glasses. That's because astigmatism results when the cornea is more spoon-shaped than the normal spherical shape. This causes the rays of light that reach the retina to bend unequally,

which prevents sharp focus.

For patients with cataracts, the implantation of standard and premium IOLs do not correct astigmatism. However, the toric IOL is an ideal option for patients with astigmatism. If one's glasses prescription has significant astigmatism, they and their physician may decide to insert an astigmatic or toric IOL at the time of their cataract surgery.

Just how does the toric IOL work? It is designed to correct for the natural existing astigmatism in the cornea. It is similar to the function of a toric contact lens in that the toric IOL neutralizes or compensates for the astigmatism in the cornea. To correct astigmatism with a toric IOL it requires the lens being positioned in a very specific configuration. That way ones focus is sharp and clear without glasses for driving, watching TV or seeing objects far away. Although the toric IOL corrects the astigmatism portion of ones prescription, it does not have the presbyopia/near correction available.

Does the toric IOL work well for individuals with astigmatism? For astigmatic individuals with a



Toric IOL

Did you know that...

- There are 1,200,000 fibers in a human optic nerve.
- Until the 18th century, wearing spectacles was literally a balancing act - of the nose! That was before a Parisian optician added short arms to a pair of spectacles that extended out to the temples. An English optician later carried the arm style a step further to the ears, designing the world standard for spectacle frames today.
- The average time between blinks of the eye is 2.8 seconds.
- The human eye is continuously but imperceptibly moving. Muscle contractions cause it to quiver 30 to 50 times per second.
- We think we cannot see at night. But given enough time to adjust, the human eye can, for a time, see almost as well as an owl's. Ultimately, as the amount of light decreases, an owl detects shapes after a human no longer can.
- Guinea pigs are born with fur and with their eyes open.
- The purpose of a glaucoma test using a tonometer is to measure the pressure inside your eyes. High eye pressure is a risk factor for glaucoma.
- Priests in ancient Egyptian temples plucked every hair from their bodies, including their eyebrows and eyelashes.

The ideas and/or recommendations expressed in "Did You Know That..." do not necessarily reflect the opinions of the Memphis Eye, Cataract, Laser and Surgery Center.

(Continued on page 4)



Toric IOLs for Astigmatism (Continued from page 3)

standard IOL, they have a 25% chance of seeing sharp and clear without glasses for driving and television watching. For astigmatic individuals with the toric lens, approximately 95% see sharp and clear without glasses for driving or television watching.

MECA has always offered the most advanced techniques and technologies in treating its cataract patients and enhancing their

quality of life. Their objective is not simply to get rid of cataracts, but rather to enhance their vision with an IOL that fits their individual needs. Since the FDA's approval of the toric lens, many of MECA's astigmatic cataract patients have greatly benefited from the implantation of this particular lens.

The WCF Recognizes Dr. Freeman for 40 years of Humanitarian Service

World Cataract Foundation celebrated 40 years of service in Mexico at the 6th Annual Sight Night on April 17, 2010. WCF Board of Directors had some surprises in store for Dr. Jerre Minor Freeman.

First, Emcee, Jim Eikner, presented Dr. Freeman with a proclamation from Mayor A. C. Wharton proclaiming April 18, 2010 in the City of Memphis as Dr. Jerre Freeman Day.

Dr. Jerre Freeman is a lifelong Memphian and an internationally known speaker, author, inventor and surgeon, who has humbly made outstanding contributions to the world through his life's works. Moreover, this proclamation serves as a commendation to recognize the service, accomplishments and life achievements of this great Memphian.

Dr. Barrett Haik, Chairman of the Department of Ophthalmology at University of Tennessee, Hamilton Eye Institute presented Dr. Freeman with a custom designed, etched glass plaque bearing an artistically rendered image of Dr. Freeman with a pediatric patient during a sight-saving mission. Dr. Haik presented this special award in honor of Freeman's career as an outstanding ophthalmologist and his humanitarian service. Dr. Ariel Ramirez,

surprised everyone with two awards from the Government of Guerrero. In honor of their compassion and dedication for the impoverished people of the State of Guerrero, Dr. Ramirez presented Dr. Alfredo Amigo and Dr. Freeman each with a beautifully etched glass plaque. In terms of healthcare delivery to the poor in Mexico, the State of Guerrero is ranked #6 in all of healthcare, but ranks #1 in eye care. This accomplishment is mainly due to the World Cataract Foundation's work there.

The final presentation was the Amistad Award, named after the Hospital de la Amistad (Hospital of Friendship), where the mission teams stay and perform surgery.



Barrett G. Haik, MD presents Dr. Jerre Minor Freeman with a special award honoring his outstanding career as an ophthalmologist and humanitarian.

Photo courtesy of William Phillips

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