

With innovative technology, excellent service and a caring team, we at Davis Eye Care have a responsibility to make our patients aware of what total eye health really means. We do this with great pride and commitment.

DAVIS

EyeCare Update

A Quarterly bullet in on new developments in the field of eyecare from Davis Eye Care – Your Eye Care Specialists | Summer 2011 Vol 11, No. 1

With innovative technology, excellent service and a caring team, we at Davis EyeCare have a responsibility to make our patients aware of what total eye health really means. We do this with great pride and commitment.

Special points of interest:

Visit us at our new website:
daviseyecare.com

You can make an appointment, order your contact lenses and solutions, find out information about important new developments in eyecare and get general knowledge about your eye health.

On Call 24 Hours
Phone: 708-636-0600
Cell: 708-935-7375

In an emergency situation don't panic...just pick-up the phone and call someone you can trust. Treatment of all types of ocular infections, removal of foreign bodies from the eye, such as wood or metal, treatment of allergies or dry eye, patient advocate for laser vision consultation, and in a pinch, contact lens and eye glass replacements. Davis EyeCare is now proud to have at its disposal the most sophisticated instrumentation for glaucoma diagnosis and treatment. Don't worry, call the EyeCare Specialist, Davis EyeCare.

Loaner Lenses

Lost and broken contact lenses should not create a panic. In the event of a lost or damaged lens we will supply an immediate replacement for uninterrupted lens wear. Eyeglasses can also be replaced immediately. Davis EyeCare can fabricate a replacement from our large inventory. If you are in need of an immediate replacement visit our office or website at www.daviseyecare.com and communicate your requirements. Professional contact lens care makes the difference!

World's First Electronic Self Focusing Bifocal Glasses

Now you can adjust your vision just by living your life. With emPower!™, the first electronic-focusing eyewear. A touch of the temple or tilt of the head activates a layer of liquid crystals in each lens, instantly creating a near-focus zone. emPower! not only gives you control over your vision, it also provides wider fields of view and less distortion than progressives. Ask for a demonstration at Davis EyeCare and see why emPower! is the biggest optical advance in over 50 years.

What is emPower!™ Eyewear? emPower! is the first electronic-focusing eyewear — it adjusts so you don't have to. So now you can adjust your vision simply by living your life. Each of the lenses in emPower!™ Eyewear features a virtually invisible layer of liquid crystals that instantly adjusts and provides you with a near-focus zone. Activating that zone is simple. In Manual mode, a touch of the temple triggers the near-focus zone, while another touch turns it off. A

swipe of the temple activates the Automatic mode, so the near-focus zone turns on and off in response to up and down movements of your head. And a portable charger lets you power emPower! for 2–3 days with a single charge. Progressive lenses (also known as "no-line bifocals") were a great advance. But in today's digital world, we've moved past with emPower!™ Eyewear uses advanced electronics to instantly adjust as your vision needs change.

emPower! doesn't know when you want to play a round of golf, or descend a flight of stairs. But it certainly seems that way. Because emPower! Eyewear uses your life as its guide, instantly adjusting focus as you go about your day. Standard progressive lenses have a reading zone that's always present, creating blur and distortion whenever you don't require near-vision. emPower!™ Eyewear's electronic reading zone is

under your control. Automatic or Manual mode — it's your choice. In Automatic, the near-focus zone activates when you look down, and disappears when you look up. In Manual, the near-focus zone appears when you touch the temple.



PixelOptics has invented the first dynamic electronic spectacle lens, emPower!™. If you wear bifocals or progressive lenses, this technology will revolutionize the way you see and use

your eyeglasses. em-Power!™ will Focus as fast as you can blink your eye, Provide an invisible electronic near focus zone when desired, provide wider fields of view compared to a progressive addition lens, Allow for less distortion than a progressive addition lens, Vision correction for all ranges of sight: far, near, and in between, Allow you to turn near reading power off when desired and Re-chargeable hidden battery.

Safigel Dailies: The most wetttable Lens Available

Safigel 1 Day™ disposable daily wear contact lenses represent a revolutionary leap in contact lens technology and performance. Positioned at the cutting edge, these contact lenses have the same natural biopolymer, sodium hyaluronate (HA), used in many leading dry-eye drops. One of the major problems for contact lens wearers is dry eye, exacerbated by environmental factors, e.g., heating, cooling, smog, allergies, and extended computer usage.

Daily disposables are superior to all other contacts since they are discarded after each use, eliminating the accumulation of allergy-causing debris on the lenses from day to day. They provide great vision and do not require cleaning solution. They are the most successful, have the least complications, have virtually no chance of infection. With Safigel 1



Day™, the contact lens remains continually hydrated because of the unique hydrophilic properties of the hyaluronate gel. Come to Davis EyeCare and try on a pair.

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Vision is Priceless

Mites on your face and eyelids check out the symptoms: Are you infected?

Demodex is a mite that lives on the face and in the hair follicles associated with various skin complications of the face, such as blepharitis, acne rosacea, and other skin conditions.

The disease can badly damage the skin usually when the immune system is weakened and the parasitic population has colonized. Varying in size from .1mm to .4 mm long, they live in the pores of the skin and hair follicles, typically on the scalp, forehead, cheeks, nose, eyebrows, external ear channels and most often in the roots of the eyelashes. As the demodex complete the entirety of their life cycle in the pores of the skin and hair follicles, they cause mechanical and chemical damage to the skin. Additionally the allergic reaction that leads to inflammation result in, acne eruption, pustules and reddish color on the face.



There are two existing types of mites: the longer kind, Demodex folliculorum, which live in the hair follicles and the short ones, Demodex brevis, which live in the sebaceous glands. The mites are invisible to the naked eye. It is quite easy to observe Demodex mites, by carefully removing an eyelash or eye-brow hair and placing it under a microscope. The mites are transferred between hosts through contact of hair and sebaceous glands on the nose. In the vast majority of cases, the mites go unobserved, without any adverse symptoms, but in certain cases can dramatically increase symptoms of itching, inflammation and debris on the lashes. The mites can live on all body parts wherever there are hair roots and sebaceous glands. These areas have the most favorable living and breeding conditions and provide an optimum temperature for them to thrive. The Demodex folliculorum mite live in the eye lash roots and cause blepharitis, itching and infections. The hair follicles from the scalp are also often infected with itching and hair loss as a result. Those patients with symptoms need to remember a few simple rules. Wash hair, face,

nostrils, the external ear and the neck with soap daily. Wash bedding and pillow cases in hot water and dry in



a heated dryer immediately before beginning a lid scrub regimen, and once a week thereafter. Keep pets away from sleeping surfaces. If a spouse has complaints of similar eye irritation, apply the same eye cleansing regimen. Cliradex Cleansing Eyelash Scrub stimulate mites out from deep hair follicles and skin causing direct killing. Ocusoft eye scrubs mixed with 50% tea tree oil will also provide a therapeutic treatment. If excessive itching, redness, swelling or persistent irritation occurs, stop use immediately and contact Davis EyeCare. The demodex count usually drops to zero in 4 weeks without recurrence in the majority of cases.

Patients receiving therapy show dramatic improvements in symptoms, ocular surface inflammation, tear film stability, corneal epithelial, and visual acuity. Remember these mites infest all hair follicles and pores. Treatment includes shampoo, body gel and face mask daily. If you have any of these symptoms make an appointment at Davis EyeCare and ask for an examination of your lids and especially a microscopic evaluation of your eyelashes.



New Bifocal Contact lenses: Enjoy the freedom from glasses

Whether you're reading, driving or working on a computer, you can enjoy crisp, clear vision with AIR OPTIX® AQUA MULTIFOCAL contact lenses even if approaching 40 or over. They're designed with TriComfort™ Technology to provide breathability and moisture retention, while resisting deposit buildup. At last, a



lens that provides a smooth transition as your eyes move naturally from one focal distance to another - near, intermediate and far. Air Optix Aqua Multifocal is a presbyopic lens system with 3 ADD powers designed to

successfully fit and smoothly transition you through the different stages of presbyopia so that you can stay in contact lenses longer. With a number of innovations such as the new Precision Transition Design and the unique plasma surface treatment, Air Optix Aqua Multifocal contacts promise to provide superior comfort and wettability. No need to suffer from blurred vision, headaches, eye strain or eye fatigue. No need to wear big bulky eyeglasses in order to have an

adequate bifocal range, you now have the choice. Bifocal contact lenses have been developed to provide good distant, intermediate and far vision. Make an appointment at Davis EyeCare to try on a pair of these new bifocal contact lenses and test your vision to see if you are a good candidate enjoy the freedom of eyeglass free vision.

Find relief from Seasonal Allergies

Ocular seasonal allergies are usually caused by pollen, which are released from grasses, trees, and other plants at certain times of the year. The primary cause of indoor allergies are dust mites. These microscopic bugs feed on dead skin cells and are found in upholstered furniture, carpets, and bedding. Other things can trigger indoor allergies such as mold and pet dander. The top three symptoms of ocular allergies include itching, redness and tearing. A burning sensation and puffy eyelids are not unusual, and some people report that their eyes become sensitive to light. There also may be a stringy discharge present. Davis Eyecare can diagnose ocular allergies by examining your eyes and asking you the right questions. Although symptoms of ocular allergies can be very uncomfortable and disrupt your day to day activities, but they usually do not harm your eyes. Your vision may become blurry because of watery eyes, but once your symptoms are under control your vision will return to normal. This is not pink eye which is a contagious infection from a virus. Ocular allergies are not contagious. Relief from symptoms can be achieved by prescribing eye drops such as Lastacraft. The action time to relieve the symptoms will occur minutes after the installation of the medication. The only way to prevent ocular allergies is to avoid things that triggers the allergic reaction such as pollen and mold, which can be difficult. There is no place in the United States that is free from allergies. You can check the pollen count in your area at www.pollen.com. You may not be able to eliminate all allergens from your home, but you can keep them under control so that your home is comfortable, for people with eye allergies.



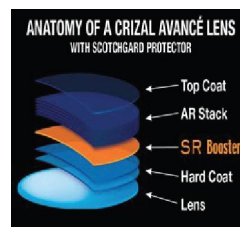
- Vacuum furniture, carpeting, and window treatment once a week and more often if you have pets. Use a vacuum cleaner with a HEPA filter. Be sure to dispose of the vacuum bag after use so that the dust mites do not escape.
 - If allergies are severe replace carpeting with hardwood, tile, or linoleum flooring.
 - Clean floors with a damp mop rather than dry dusting or sweeping.
 - Keep pets out of the bedroom so you are not exposed to animal dander and other allergens clinging to your pets fur while you sleep.
 - Clean and disinfect areas where mold is likely to form, such as window sills, and corners of the bathroom.
 - Wash bedding frequently, and use mite proof covers for your pillows and mattress.
 - Use a dehumidifier to reduce the chance for mold to form.
 - When pollen counts are high, close your windows and use air conditioning, which will filter the air. Replace air conditioning filters regularly. Avoid using window fans that can draw pollens and mold into the house. You can also be proactive to minimize symptoms during allergy season.
 - Stay indoors when pollen counts are at their peak, usually during the mid-morning and early evening and when wind is blowing.
 - Wear glasses or sunglasses when outdoors to protect your eyes from pollen.
 - Wash your hands immediately after petting any animals.
 - Avoid mowing the lawn, raking leaves, and gardening. If you must do these things, wear goggles and a pollen mask to help filter out allergens.
 - After visiting friends with pets or being outdoors during allergy season, shower and change your clothes right away to remove dander, pollen or mold spores from your skin, hair and clothing.
 - Wash your hair at night before bedtime to rinse away allergens and avoid being exposed to them while sleeping.
- Make an appointment at Davis EyeCare to be educated about what causes eye allergies, how to avoid allergens and what medication to take when symptoms start. Together we can plan a prevention strategy and treatment plan that is right for you*

Glass Coatings turn Vision into High Definition

Real life gets messy! That's why Crizal lenses with Scotchgard Protector were created. This lens features all the benefits of Crizal plus the best durability and scratch resistance. While standard lenses block up to 18% of light, Crizal Easy lenses allow up to 99% percent of light pass through which means more light for sight! Crisper, clearer

vision providing you all the visual benefits needed to see your best. These lenses help protect from the scratches, smudges, dust and fingerprints you encounter during your day. So now your investment will be better protected when your child grabs the glasses off your face, or you have to toss your glasses in your purse or briefcase in a hurry. You

will also benefit from fewer headaches and less tired eyes when working on the computer or watching TV and safer vision when driving at night. Say goodbye to tired eyes! These lenses fight reflections from computers and overhead lights and reduce glare from headlights/streetlights for safer nighttime driving.



Vitamin Therapy for Dry Eye Syndrome

All-natural EyePromise EZ Tears helps alleviate Dry Eye symptoms from the inside with 8 anti-inflammatory ingredients. By the makers of EyePromise Restore, with more than 15 million doses safely consumed! EyePromise EZ Tears supports healthy tear production and quality by improving tear composition and reducing inflammation.

EyePromise EZ Tears may reduce or help eliminate:

- Irritated or scratchy eyes
- Redness in the eyes
- Feeling of a foreign particle in the eye
- Excessive watering to compensate for severe dry eye

Tears are produced in three layers: lipid (oily), aqueous (watery), and mucous (mucous). Dry eye can result from low tear production or inadequate tear composition. In addition to discomfort, dry eye may also damage eye tissue and scar the cornea.

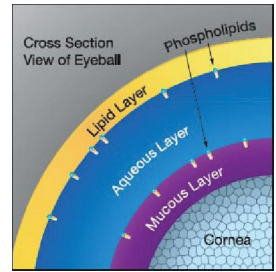


8 All-Natural, Anti-inflammatory Ingredients:

- Omega-3 (1,145 mg, DHA/EPA = 590 mg/440 mg) Fatty acids from fish are vital and lacking in the typical diet; significant structural components of tissue cell membranes throughout the body; DHA is rich in the brain and retina where deficiency can result in decreased vision.
- Vitamin A (as retinyl palmitate 1,000 IU) Fat soluble vitamin (absorbed by the body with the help of fats) for corneal surface health; mucosal, conjunctival, meibomian and lacrimal gland health; major importance in the mucous layer of tear production.
- Vitamin D3 (2,000 IU) Fat soluble vitamin deficient in the American diet; positive effect on immunity and systemic inflammation, immune health, joints and muscles, and more.
- Vitamin E (d-alpha tocopherol 60IU) Fat soluble

vitamins and related compounds essential for reduction of systemic and ocular inflammation; these compounds are found in a healthy diet and important in stabilizing Omega-3 fatty acid formulas.

- Evening Primrose Oil (100 mg) Contains GLA (gamma-linoleic acid) - shown to favorably affect dry eye symptoms by inhibiting conversion of Omega-6 fatty acids to pro-inflammatory molecules.
- Turmeric Extract (50 mg) Includes curcumin with systemic and ocular anti-inflammatory properties; inhibits conversion of Omega-6 fatty acids to pro-inflammatory prostaglandins and inhibition of other pro-inflammatory signals on the ocular surface.
- Green Tea Extract (50 mg) Provides antioxidant effects in systemic and ocular tissues, reducing the effect of inflammatory compounds that are a major cause of dry eye.



New SynergEyes No-line Progressive Bifocal Contact Lens

Davis EyeCare has partnered with SynergEyes to bring you a new bifocal no-line aspheric contact lens. This new bifocal contact lens is different than any previous bifocal contact lens that is available. The SynergEyes lens material is made up of a gas permeable center and a soft skirt. The rigid center provides pristine vision better than any soft lens because you no longer have to look through a lens



made up of water. Looking through a contact lens made up from water gives a soft focus whereas the optical properties of a rigid lens is better than any optical material on the market. The soft portion of this lens provides the comfort equal to any soft lens and provides perfect lens centration that is mandatory for a bifocal contact lens to work effectively. This new lens design incorporates near vision in the center of the lens

and distance vision in the surround just like a Bulls eye pattern. The center of the lens comes in two sizes; large and small. The large size is for patients that require better than average near vision. The small zone size is for patients that require better than average distance vision. The nature of the progressive bifocal generates all three vision requirements for good distance, intermediate and near vision. Today, patients require more intermediate vision than previously because of cell phones and computers. This was the

basic mission in developing this lens design. Dr. Robert Davis has worked on this design for two years finally to bring the finished product to the market place. Davis EyeCare has developed many products over the sixty years of delivering quality EyeCare products and this is one of the best. At your next visit to Davis EyeCare ask for a free trial fitting for this new exciting newly developed Bifibofocal Contact Lens.

Dry Eye Can Cause Chronic Irritation And Fluctuating Vision

Have you noticed your eyes starting to sting? Having trouble reading at night because of the glare from your bedside light. Is it fatigue, you wonder? Actually, these are the classic symptoms of a disease called chronic dry eye, which affects 5 million Americans—a majority of them women. Having dry eye can cause chronic irritation and fluctuating vision. If left untreated, it can get increasingly severe over time, undermining not only comfort but also your vision.

Why Dry Eye Happens

Normally, your eyes are constantly creating a smooth film of tears that naturally moistens the front of your eyes. This film washes away dust when you blink, protects you from infections and is essential for clear, comfortable vision. With dry eye, an inadequate amount of tears are produced or the tears evaporate too quickly. While the condition can strike at any age,

dry eye is more common in women after menopause and in men over age 50. In some cases, your environment may be the blame for dry eye. Excessive wind and hot air can worsen dryness. Activities like working at a computer or driving make you blink less, so tears evaporate faster. Some immune system disorders (Rheumatoid arthritis, lupus and Sjogrens syndrome) can be associated with dry eye as can certain prescription medications.



Diagnosing Dry Eye

Most patients show up in our office after they have tried over the counter artificial tears. Along with evaluating your symptoms Davis EyeCare will check the quality

and quantity of tears. To gauge moistness Davis EyeCare will use an Osmolarity instrument, in which a micropipette takes a sample of your tears for analysis to measure the quantity of your tears. Another common test, the Corneal Staining Test, looks at the quality and smoothness of your tears on your cornea. Davis EyeCare doctors place a drop of orange dye on the surface of your eye. We will look at the eye with a microscope that emits blue light. The results can show damage to the surface of your cornea from dry eye syndrome.

Treatment Options

If an underlying disease is the culprit, the first priority is to get the condition under control. If you are experiencing

side effects from a drug you take for a medical problem, we will consult with your physician to find the optimal medication and dosage. Dry eye can be temporarily treated with artificial tears or ointments. Prescription therapies are also available. In some cases Davis EyeCare may decide to use tiny gel plugs to hold natural tears in your eye longer. They block the ducts through which tears normally drain, and are painlessly inserted by our doctors. Omega # Vitamins can also increase tear production from its anti-inflammatory properties along with administering anti-inflammatory medications. Dry eye can interfere with your quality of life and your ability to read and perform other daily activities. Davis EyeCare can help suggest the treatment options that may work best for you.

Mobile Phones, Game Boys, iPads and Wii

Mobile phones, iPads, 3-D handheld video games, laptops. New technology is developing at breakneck speed. But are electronics dangerous to your eyes. There are no studies showing permanent or long lasting visual damage from these devices. But staring at portable game devices, surfing online or watching TV for prolonged periods of time can cause problems, such as strain, fatigue and dry scratchy eyes

Why do electronics strain the eyes?

When we do anything up close where our eyes are doing many things such as focusing and coordinating the eyes the



strain causes the muscles of the eyes to get tired. The eyes also tend to blink less, which can dry out the eyes. Can I balance eye health and fun? Everything in moderation. Make sure you look up frequently to relax the eyes. A rule of thumb is every twenty minutes take a five second break and look at a distance to relax your visual system. Remember to blink often and build in these mini

breaks. Staring at a computer screen with central air conditioning can lead to dry eyes.

The fix: artificial tears and remembering to look away and blink. If your symptoms of blurry vision, headaches and strained, dry or tired eyes are not alleviated computer glasses will make near tasks easier for you to adjust to, and your eyes won't have to strain.

Here Comes the Sun

Don't forget your Shades

We know you have likely heard this before: Ultraviolet rays are really bad for your eyes. The rays may burn your cornea (the surface of your eye) lead to cataracts (which can cause a hazy vision) and age related macular degeneration (the leading cause of blindness in older Americans). The safeguard is simple: Buy sunglasses with labels that state they protect you from 99%-100% of UVA and UVB light. A dark lens does not necessarily offer UV protection; it



must say it does on the label. Also consider wraparound sunglasses to stop UV rays from entering the sides of the frame.

And a hat, too

A wide brimmed hat or cap can further protect you from the sun's harmful rays, especially those that hit the eyes from above your sunglasses. It also protects the skin around your lids – a place at high risk for skin cancer.

Wear swim goggles

If you swim for sport or recreation, wear goggles to protect your eyes from water-borne bacteria and



swimming pool chemicals. UV coated swimming goggles is an added protection in the sun where disease process initiate.

Don't forget the kiddies

Kids of all ages – from babies to teens need to wear UV protective sunglasses. Kids spend most of their time outside playing in the sun and are the most at risk in initiating disease. 50% of a person's total lifetime UV radiation exposure occurs before age 18. Exposure to



sunlight at an early age appears to be the critical factor in the development of eye cancer. The

three basic steps that all of us can take to negate the long-term hazards of UV radiation are to wear sunglasses, hats, and skin protection.

Genetic Testing for Macular Degeneration

Age-related macular degeneration is the leading cause of blindness in Caucasians over 65 years of age. It is predicted that the number of individuals affected with advanced age related macular degeneration (AMD) will grow to almost 3 million by 2020 due to the aging population.

Most individuals are not aware of having early stage of AMD due to lack of clinical subjective symptoms. However drusen is usually the first sign of AMD and can be identified through a routine eye examination. Drusen are focal depositions of waste material in the retina. Excessive amounts of drusen can lead to damage to the retina structure and cause vision loss. The environment also plays a role accelerating AMD. Smoking, obesity, hypertension, high dietary intake of low fat, low dietary intake of antioxidants and zinc with associated decrease in physical activity are associated with increase risk of AMD.

Genetic testing can identify patients with an increased risk for advanced age-related macular degeneration. Early identification of at risk patients may prevent vision loss or slow down the progression of the disease.

Macular Risk is the genetic testing procedure intended for patients who have a diagnosis of early or intermediate Age related Macular Degeneration. (AMD)

By analyzing the AMD genes inherited from patients and by taking into account smoking history, Macula Risk identifies those most likely to progress to advanced AMD with vision loss.

Davis Eyecare can perform a Macula Risk test to identify your risk of vision loss. The sample is a cheek swab taken in our office and sent to a laboratory for analysis.



The incidence of AMD grows from 1 in 10 people over the age of 60 to more than 1 in 4 people over the age of 75. Most people do not know they have AMD until they start to lose

central vision in one eye. Vision loss can happen quickly and without warning; with current treatment it can be arrested and in some cases improved. Early detection and treatment of AMD is critical for the prevention of blindness. Frequent monitoring is recommended for those at risk.

The Macular Risk genetic test is covered for reimbursement by most insurance providers including Medicare providing that you have been diagnosed with a condition. Relatives of individuals affected with AMD should also be tested so that the family members with an increased risk for developing AMD are identified early and preventive measures can be considered.

Mechanisms of Age-Related Macular Degeneration [Diabetic Retinopathy]

Age related macular degeneration (AMD) and diabetic retinopathy are among the most common of eye diseases. Age related macular degeneration is the leading cause of blindness in Americans over 65. Over 23 million Americans have diabetes, and as many as 1.3 million of these estimated to require insulin. A recent study found that 97% of insulin-dependent diabetes will develop diabetic retinopathy.

Both of these diseases affect the retina – the receptor cells of the eye that we see with. The macula is a small region of the retina that provides the most detailed vision. There are blood vessels beneath the macula that can leak causing wet macular degeneration, while there are also blood vessels on the surface of the retina, that can leak creating diabetic retinopathy.

While age related macular degeneration and diabetic retinopathy are different diseases, they share common disease mechanisms. There are three mechanisms that drive both of these diseases:

oxidation, inflammation and new blood vessel growth or neovascularization. In age-related macular degeneration, bright sunlight, especially that which you may be exposed to at the beach or high altitudes, enters the eye and, in those who are predisposed, causes slow gradual damage

to the retina. Light is a form of energy, and when this energy hits the retina it can cause a reaction that results in oxidative damage to the retina and vision loss. Oxidation is the same reaction that occurs when iron rusts. The oxidative damage to the retina also causes inflammation that eventually leads to new abnormal vessel growth or neovascularization. These blood vessels are fragile and can bleed, leading to sudden vision loss with patients who have macular degeneration.

In diabetes, instead of sunlight causing oxidation, high blood sugar causes oxidation inside blood vessels. This results in decreased blood flow, areas of the retina do not receive enough blood and they become oxygen starved or ischemic. An ischemic retina is damaged by essentially being suffocated. This damage causes inflammation eventually resulting in new blood vessel growth or neovascularization. As in AMD these blood vessels are fragile and can bleed leading to sudden vision loss.

Dietary supplements for macular degeneration developed in the early 1990's, which are still used today containing antioxidants and help suppress oxidation. In the Age-Related Eye Disease Study (AREDS), these were shown to slow vision loss. New anti-angiogenic drugs, or drugs that block new blood vessel growth, which are injected into the eyeball, may help some patients improve vision lost as a result of AMD. However each of these treatments has its limitations, so research is still developing better options. All new supplementation must suppress oxidation, inflammation and neovascularization.



Testing The Electrical Activity Of The Entire Visual System To Diagnose Your Visual Problem

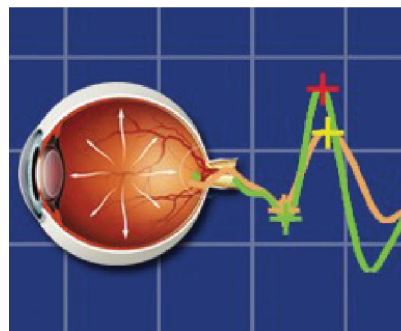
VEP Vision Testing System has been developed to objectively assess optic nerve disease and other neuro-visual disorders including glaucoma, multiple sclerosis, diabetes and macular degeneration. The diopsys test is a noninvasive medical device used to objectively measure the function of the entire visual pathway from the lens of the eye to the visual cortex of the brain in order to help Davis Eyecare to diagnose diseases of the optic nerve. The test is painless and does not require dilation. The Diopsys® NOVA System is the only objective visual testing devices capable of evaluating the entire visual pathway available today. Light from an image enters the eye. The light energy is converted into electrical energy, generated by the photoreceptors in the retina in the back of the eye. The electrical energy leaves the back of the eye moving towards then by way of the optic nerve. The transmission of electrical signals to the brain from the retina is like the electrical wires in your



house. When the light energy from a visual stimulus like a checker board square hits the retina, cells turn that light into a positive electrical pulse. Like a battery the electrical charge travels through the entire visual system flowing towards the brain. The VEP from Diopsys measures the electrical charge inside the eye and again when it reaches the brain. If the electrical charge is reduced when it leaves the retina, the pathology resides within the retina. If the electrical charge takes too long to reach the brain, the problem is within the visual pathway. If the electrical charge is reduced at the brain the problem resides within the brain. The diopsys VEP is the only device that can assess the entire Visual System.

This diagnostic instrument can test children six months of age and older, stroke patients and other non verbal special needs individuals in order to detect visual deficits such as optic nerve disorders, severe refractive errors, amblyopia, and other pathological conditions

which could lead to visual loss. The Children's Eye Foundation estimates that 4.5 million adults are legally blind or visually incapacitated in at least one eye due to amblyopia that was left untreated. Early



intervention and detection of vision impairments is essential to patients maintaining and developing normal vision. Davis Eyecare has invested in the diagnostic capabilities to protect and maintain a healthy visual system. If you or a family member is in question of problems within your visual system, make an appointment.