

Dr. Mazzuca's Guide to Common Eye Maladies

This is a guide to common eye disorders that I see in my practice very frequently. I have tried to explain the disease in layman's terms and offer advice as to how to cure it or alleviate some of the symptoms. I hope this also ameliorates your fears and educates you at the same time.

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1) Age related- macular Degeneration (AMD)

Age related-macular degeneration is a retinal degenerative disease that ophthalmologists frequently see. AMD is the leading cause of blindness of the elderly, in the United States. AMD can slowly take away your central vision causing difficulty in reading, watching TV and seeing people's faces. AMD does not, however, interfere with your peripheral vision. Even though you may be legally blind from AMD, patients can still function reasonably well. This is important to know since many patients with AMD think it will progress to the point of being in total darkness. Many patients with AMD, who are legally blind, function fairly well on their own but certainly welcome the help from their family, friends, magnifying glasses and other reading aids.

We do not know the cause of AMD. It always occurs in both eyes though one eye may lag behind the other in severity. There is evidence that a high fat diet increases the risk of AMD and that a diet that is high in fish consumption (omega-3-fatty acids) may confer a lower risk of AMD. We do know that smokers have a higher incidence of this disorder, as do patients who have fairer skin and lighter eyes (those of northern European descent). There is probably a genetic component to this disease, though, it is not fully understood. In my practice it is much less common to see AMD in patients with darker skin than lighter, fairer skin. For instance, those patients that have descendents in southern Europe such as Italy and Greece and those from the continent of Africa have a much lower incidence than those patients with descendents from northern Europe.

There are basically 2 types of AMD. The great majority of cases are of the "dry" form, which means that there is no bleeding and no new blood vessel formation in the affected area of the retina. The other "wet" form means that there is new, abnormal blood vessel formation in the macula that will tend to rupture, or bleed, unless it receives treatment. It is important to note here that the wet form develops only after a patient develops the dry form. This wet form develops in a minority of AMD patients (5-14%) and needs to be diagnosed as early as possible in order for the laser or drug treatment to be effective.

The laser or "light" treatment for the wet form is important and can prevent progression of the vision loss in many patients. There are also newer medical treatments whereby a drug is injected into the vitreous of the eye. These drugs are called vascular endothelial growth factor inhibitors or anti-VEGF drugs. These medicines prevent new blood vessel formation and subsequent further loss of vision. These drugs are used at very specific times and usually require a retino-vitreous ophthalmologist to administer them. The laser treatment and the intra-vitreous drugs are administered because without it, the vision will diminish greater than if they did not have the laser treatment at all. See your ophthalmologist about the ways we are treating the "wet" form of AMD. There are always new treatments for this disease.

Lastly, I would like to talk about prevention. Recently, a study (AREDS study) demonstrated that certain vitamins slow the progression of AMD in a minority of patients with the dry form. Specifically, Vitamins A, C, E with zinc and copper were shown to have a modest protective effect against developing the "wet" form of AMD. I tell all my patients with AMD to take these vitamin components along with lutein (6mg./day), fish oil capsules (2000-4000mg/day), coenzyme Q10 (100mg/day) and L-Carnitine (50-100mg/day). It is also important to eat a well-balanced diet (5-9 helpings of fruits and vegetables a day), get a little bit of sun, exercise 3x week (walking is great), don't smoke and see your ophthalmologist regularly. ([back to TOC](#))

2) Blepharitis

Blepharitis is a chronic, inflammatory condition of the eyelids whereby patients complain of pain, redness, itchiness and foreign body sensation. We do not know exactly what causes blepharitis but we suspect it is bacterial in origin. With this disorder, the oil glands on the lids (meibomian glands) become blocked and infected, the lid margins become scaly and many times the lashes fall out or grow improperly towards the eye.

The treatment is to cleanse the lid margins daily using very dilute baby shampoo and warm water or eyelid scrubs found at the local pharmacy. Also, warm compresses can be used to help open blocked oil glands. Antibiotic and steroid drops also help if the eyes become infected and uncomfortably red. These are used at the discretion of your ophthalmologist in concordance with the severity of your problem. Sometimes the blepharitis is associated with acne rosacea, which would require further treatment by your ophthalmologist or dermatologist. Acne rosacea is an important and often overlooked cause of blepharitis, conjunctivitis, dry eye and ocular rosacea. If you get red cheeks, a red forehead intermittently, for no apparent reason than you should consider acne rosacea. It is also associated with broken small blood vessels on you nose and cheeks and oily facial skin. Acne rosacea must be treated in order for the eyes to get better. Consult your Dermatologist or Ophthalmologist for this problem. ([back to TOC](#))

3) Cataract

Cataract is an opacification of the lens in your eye. It is also a waterfall but we will stick with the eyes in this discussion.

Cataract is the leading cause of blindness in the world. Aging is the chief cause of cataracts but some drugs can cause cataracts, like steroids, and sometimes we are born with cataracts, as well.

The symptoms of cataract include cloudiness or haziness of vision, glare at night, halos around lights at night, reading difficulty (with or without your reading glasses), and difficulty watching television. We do not “feel” cataracts. The cataract is in your eye and so they are rarely, if ever, painful. If cataracts are left alone they will make you blind.

The treatment for cataracts is surgical. Cataract surgery is the most common surgical procedure performed in the United States. It is very successful and almost all patients see much better after the procedure assuming there is nothing else wrong with their eyes. The surgery takes about 10 minutes in an operating suite after the eye has been anesthetized. Anesthesia is provided by topical eye drops and a mild sedative. There are no needles used for this procedure! The cataract is removed through a small incision usually by a phacoemulsifier (ultrasound not laser) and a lens implant is placed in the eye where the cataract once was.

Cataract is a wonderful procedure in most cases. Newer lens implants can also allow you to be free of your glasses for both distance and near. Ask Dr. Mazzuca about getting rid of your glasses through cataract surgery. ([back to TOC](#))

4) Conjunctivitis

Conjunctivitis is an inflammation of the thin tissue membrane covering the white part (sclera) of the eye. Many things cause conjunctivitis including viruses (most common), bacteria, chemicals, drugs, allergies, trauma, dry eye and even contact lenses. I will deal with the most common in my practice otherwise I will can spend all day on this subject alone.

The most common cause of conjunctivitis is a *virus*. It is typically the same virus that causes the common cold. It is referred to as “pink eye” and always starts in one eye and can spread to the other eye. It is contagious and is usually associated with a concurrent head or chest cold. It is self-limited and can be painful, though, usually it simply makes your eye red, teary and uncomfortable. Most of the time it clears in about 10 days and requires no treatment. Artificial tears help as do cool compresses but nothing makes it better than tincture of time. Children do not have to take time off from school since it is simply like having the common cold. The patients should wash their hands frequently and should be careful not to get their tear secretions on anyone or anything else.

Bacterial conjunctivitis is associated with redness, pus in the eye, discomfort and is a little more severe than “pink eye”. It does not usually go to the other eye and it is not as contagious. It can be associated with a cold (especially in children) but typically it is not. Most bacterial conjunctivitis I see is in the elderly who already have dry eye, blepharitis or some other lid abnormality. It is treated very successfully with antibiotics and when necessary washing the lids.

Chemical conjunctivitis can be caused by something as common as chlorine in pool water (typically a minor problem) to a myriad of toxic chemicals found at home and at work. Always wash out your eyes with copious amounts of tap water (for ½ hour) if a chemical injury has occurred and see your ophthalmologist or emergency department as soon as possible.

Dry eye can also cause conjunctivitis and can be quite severe. Its symptoms include pain, redness and foreign body sensation usually in both eyes. Dry eye is usually associated with dry mouth, certain arthritic conditions, use of diuretics, use of contact lenses, and blepharitis. I cover dry eye a little later in this document.

Allergic conjunctivitis is caused by seasonal allergies such as pollen but can also be caused by mold, smoke, smog and even perfume. Usually the eyes itch, get mildly red or pinkish in color and produce a stringy mucus. It is not painful and does not decrease your vision. It can be a chronic condition. There are many eye drops that treat allergic conjunctivitis successfully. Most of the quality drops are prescription and therefore, I do not recommend any over the counter eye drops at this time. Do not use the advertised eye drop that “Gets the red out”. One can also take an oral antihistamine that can be purchased over the counter but be careful because most of these medicines make you very sleepy.

Eye drops can cause conjunctivitis by way of allergy to the preservative and/or active drug or toxicity from any component in the eye drop. This conjunctivitis can occur anytime while taking the drop even if you have been taking it for years with no problems. I see this commonly with glaucoma eye drops. It can be difficult to diagnose since many patients are taking multiple drops and it is hard to tell which one it is. However, with a little bit of detective work your ophthalmologist will discover which drop is causing you the symptoms. ([back to TOC](#))

5) Diabetic eye disease

Diabetic eye disease entails a range of disorders that occurs in patients with both types of diabetes, adult onset and juvenile. The problems that occur with diabetic eye disease can be devastating and blinding if not detected and treated early.

Diabetic eye changes occur because the blood vessels in the retina lose their strength and integrity. When this occurs they leak fluid, leak blood and hemorrhage. This causes a whole cascade of changes which may start with blurred vision and lead to blindness if not treated. These changes may also lead to other problems such as glaucoma and retinal detachment.

The treatment for diabetic eye disease varies from observation only...to laser treatment...to surgery. It is important to diagnose these abnormalities early because in most cases severe vision loss can be avoided.

Suffice it to say that if you are diabetic see your ophthalmologist yearly or at intervals that he deems necessary. It can save your sight. ([back to TOC](#))

6) Dry Eye

Dry eye is one of the most common disorders I see in my practice. Patients complain of foreign body sensation, sand in the eyes, tired eyes, burning, itchiness and difficulty wearing their contact lenses.

It fails to be diagnosed in many cases because patient's complaints vary widely and dry eye tends to mimic other problems such as conjunctivitis, allergy and ocular rosacea.

Most of the time we can diagnose dry eye from the patient's history and symptoms. There are other times you must examine the patient carefully to determine the cause of their complaints.

The tear film is very important and constitutes the most important refractive surface of the eye. Simply put, there are 3 components to our tear film that have to be working harmoniously in order for our eyes to feel good and see clearly. There is the oil layer that floats on top of the water layer that covers the mucous layer that lays directly on the cornea. The oil prevents water evaporation, the water provides moisture and nourishment to the front part of the eye and the mucous layer allows these components to adhere to the cornea and conjunctival surface. It is quite remarkable!

When we are deficient in oil the water evaporates quickly causing significant dry eye symptoms. This occurs when our meibomian glands are not working properly as in blepharitis, rosacea and other lid conditions. There is loss of water when our tear glands stop or slow production of tears. This occurs in auto-immune conditions such as rheumatoid arthritis and Sjogrens syndrome. However, most of the time we never find the cause of decrease water production in the eye. Lastly, there is rarely decrease mucous production but when there is excess mucous it is often indicative of water loss or dry eye. Also note that when we wake up in the morning with "sleep" in the corner of our eyes it is combination of dried mucous and oil. If excessive, this may be an indicator of dry eye, as well.

The treatment options have gotten better. I first start with an "over the counter" artificial tear that should be taken up to 4 times a day. If the problem is moderate to severe I recommend preservative-free artificial tears to be taken every hour, if necessary. If this becomes cumbersome to the patient I try silicone punctal plugs which are inserted in the tear drainage ducts on the eyelids. Most of the time I place 1 plug in each lower lid but sometimes it is necessary and helpful to place the plugs in the upper lids, as well. This tends to work well most of the time, but sometimes patients feel the plugs and many times they fall out.

Lastly, there is a medicated eye drop called Restasis which actually helps the eye make more tears. I reserve this drop for my most serious dry eye patients because it is expensive and takes upwards to a month to start working. Restasis has a tendency to burn when instilled so I have to really encourage my patients to continue using it. Additionally, I recommend to patients that they should take a combination of flaxseed oil and fish oil for their dry eyes. There is a product on the market called Thera Tears Nutrition which combines these two oils in one capsule. They should be taken as directed on the package. The capsules are inexpensive and very helpful for dry eye. ([back to TOC](#))

7) Esotropia

This is an eye muscle disorder whereby the eyes turn in. It can be either acquired or congenital. When congenital (starts at birth) the child usually needs surgery to correct the eyes. If it occurs in early childhood, than the child may need glasses, surgery, eyedrops, patching or some combination of these treatments. It is important to catch this problem early because one, or both, of the eyes can become "lazy" or amblyopic. Please make sure your child sees an ophthalmologist early if you suspect you're his/her eyes are turning in. All children should be examined by an ophthalmologist when they are entering school for the first time. ([back to TOC](#))

8) Exotropia

This is an eye muscle problem whereby one or both eyes turn out. It usually is benign as long as the vision in each eye is close to being the same. Patients with exotropia can either live with the problem or have corrective eye muscle surgery to straighten the eyes. ([back to TOC](#))

9) Eye Trauma

If any potentially toxic liquid is sprayed or splashed in the eyes, always irrigate the eyes immediately with clean water for at least one half hour. Call your ophthalmologist or proceed to the emergency room as soon as possible.

Whenever there is eye trauma always assess the eye without placing any pressure on the globe. If the patient wears glasses, place them on their face to assess their vision. First, if possible, try to get the patient's vision (each eye separately) by asking them to read anything you place in front of them (newspaper or magazine) or ask them to identify something across the room (what's on TV?). Use a bright light to examine the eye for foreign bodies or blood. Check the pupil to see if it is round. See if the patient can follow the light.

Generally, if their vision is pretty good or equal in both eyes, then the eye injury is usually not severe. However, they should see their ophthalmologist or optometrist as soon as possible.

If the patient was hit with a heavy, hard or sharp object, a flying missile (like a stone, BB, or pellet), or was cutting metal, or weed whacking, or was hit with a baseball, golf ball, shuttlecock, tennis ball, racquetball or any racket be alert for a serious eye injury. If the pupil is oval or misshapen then you may have a serious sight threatening eye injury. Do not rub the eye or place any pressure on it. Tape a paper cup or an eye shield over the patients eye before they are transported. Take the patient to the Emergency room.

If the patient was hit in the eye with any other foreign body or object, the vision is poor or the eye is lacerated or cut, then a trip to the emergency room is in order as soon as possible.

Remember to always be on the safe side. When in doubt take the patient to the emergency room or the eye doctor as soon as possible. ([back to TOC](#))

10) Farsightedness (Hyperopia)

Farsightedness simply means that you have to focus in order to see both far and near. Most patients that are farsighted are able to see great distances without glasses when they are younger. However, as they get older they require glasses for both far and near and usually need bifocals. In other words, hyperopia gets worse as we get older.

There is good news, however! If a farsighted patient has cataract surgery (or clear lensectomy) they can dispose of their distance glasses, and with a new multi-focal lens implant can dispose of, or reduce their dependence on their reading glasses, as well. The new technology is very exciting!

Mild farsightedness can also be treated with LASIK or Epi-LASIK with excellent results. Ask Dr. Mazzuca about what treatment is right for you. ([back to TOC](#))

11) Nearsightedness (Myopia)

Nearsightedness simply means that patients are able to see near without glasses but are unable to see distance without them. Myopia tends to get worse from childhood to adolescence and tends to stabilize in young adulthood.

Myopia can be treated with Epi-LASIK and in very high myopic individuals with lens implants and implantable contact lenses. ([back to TOC](#))