

# Common Eye Conditions

These are just some of the eye conditions that can impair vision. The doctors at PCVI can evaluate your eyes, and recommend the very best care tailored to you. Should surgery be needed, our highly trained surgeons will use the latest equipment to treat your eyes. The following descriptions should help you understand some common eye problems:

- Amblyopia
- Artery Occlusion
- Cataract
- Corneal Abrasion
- Diabetic Retinopathy
- Dry Eye
- Ectropion
- Entropion
- Eye Infections / Conjunctives
- Glaucoma
- Iritis
- Keratoconus
- Macular Degeneration
- Pterygium
- Retinal Tear
- Trichiasis
- Vein Occlusion

## Amblyopia:

Amblyopia is commonly termed "lazy eye", creating blurred vision in an eye that may appear healthy. This condition occurs when the brain does not receive the proper visual input from that eye during development. Even though the eye appears healthy during a eye health exam, vision measures poorly on the eye chart. An associated condition may be a turned eye, "Esotropia or Exotropia". Cataracts present at a young age as well as significant farsightedness or nearsightedness, can cause an improper visual development resulting in Amblyopia. Treatment typically requires long term patching of the good eye at a young age to cause the amblyopic eye to develop properly. Visual training can be used in some cases to promote proper development.

## Artery Occlusion:

Artery occlusion in the eye typically occurs when a particle of debris such as a cholesterol plaque from the internal surface of an artery flows forward in the circulatory system and is trapped in the narrow portion of the artery in the eye, thus causing a lack of blood flow to the eye. Typically the vision dims or darkens in the eye and immediate medical attention is required. A plaque can also clog a branch artery inside the eye and create a lack of blood flow to a portion of the retina. However, if the main artery is blocked the entire retina lacks blood flow. Treatment includes reduction of the eye pressure using intravenous medications, digital massage or direct removal of aqueous humor from the eye. Treatment also includes inhalation of high levels of oxygen to dilate the blood vessels. Impending signs include transient loss of vision from either eye and can be a sign of a possible stroke. If you have experienced this symptom, contact our office right away for evaluation.

## Cataract:

The lens of the eye is located just behind the colored part of the eye and is the same size and shape of an M&M candy, being normally clear. Over time due to exposure to sunlight, genetic predisposition and other various factors, the lens becomes cloudy and hazy, causing vision to blur. Many cataract patients claim their vision appears "foggy". Cataract surgery is now available without stitches, patches or needles at PCVI. Our surgeons are proud to offer this state of the art surgery that can be completed in 10 minutes in most cases.

## Corneal Abrasion:

Corneal abrasions occur when the corneal surface becomes disrupted. This can occur when an outside force (such as a branch or fingernail) comes in contact with the eye and scratches the cornea, the clear covering of the eye. These scratches are usually superficial and the depth is limited by the protective features of Bowman's layer. The deeper layers are typically protected and thus scarring is prevented. Corneal abrasions can occur without any outside injury to the eye. These "auto abrasions" can occur when the cells are not secured to the lower layers of the cornea. The corneal epithelium in some eyes is not secured well to the Bowman's layer by means of special attachments. This predisposes the epithelium to remove itself in situations where the eyelid sticks to the epithelium and pulls it off, usually upon awakening, such as in "recurrent corneal erosion" syndrome. This is typically very painful and may be more common in persons with predisposing corneal injuries. Usually abrasions are treated by means of patching or use of contact lenses. Corneal abrasions usually heal quickly, within hours or a day or two. Antibiotics are used to prevent infection during the healing phase.

## Diabetic Retinopathy:

Diabetic retinopathy is one of the leading causes of vision loss in the world. Early diagnosis and management can improve the odds of retaining good vision. In diabetes, blood vessels are blocked, causing "ischemia" or lack of blood flow to the retina. When this occurs, retinal tissue ceases to function properly. Hemorrhages, microaneurysms and swollen retina can occur in these patients, causing vision loss. When enough blood vessels become blocked in the eye, new fragile blood vessels will grow into the area. Since these vessels are fragile, they can break and bleed into the inside of the eye, causing vitreous hemorrhage.

## Dry Eye:

What can be done about dry eye? The initial step is to use over the counter lubricating drops periodically during the day, as many as 8 to 10 times in some cases. These contain the needed oils and lubricants that soothe the eye and are not present in sufficient quantity naturally. Dry eyes tend to be worse during reading or staring activities like driving or watching TV. Increased use of these drops during these times helps significantly. Breezy conditions or movement of air around fans or air conditioning units also worsens symptoms. Avoiding these conditions will alleviate some of the symptoms of dry eye. Many individuals complain of dryness upon awakening. The eye tends to be driest at night so those with these symptoms may find relief with a humidifier. If all else fails, the tear exit drain can be plugged in severe dry eye individuals to retain more of the tears on the eye. This is a common in-office procedure and affords those with the most severe symptoms a good measure of relief.

## Ectropion:

Ectropion is a condition of the eyelids, especially the lower lids, where the lid margin is not located snug against the eyeball. This condition can be caused by trauma to the skin around the eye, but is most commonly seen in the elderly population. This condition causes excessive tearing of the eye and is very bothersome to most individuals. Corrective surgery involves a special surgery to shorten and tighten the lid to reposition the lid properly.

## Entropion:

This condition of the eyelids is opposite of ectropion and can be even more bothersome since many times the eyelashes are pushed against the front of the eye causing a severe scratching sensation. Treatment in severe cases involves surgically repositioning the lids so the lid margin will point away from the eyeball. In some cases simply removing the lashes will provide relief.

## Eye Infections / Conjunctives:

"Pink Eye", the common term for conjunctivitis, is a condition where the eye is inflamed and/or infected. The usually white tissue covering the eye contains many small blood vessels which enlarge during the infection. Bacterial eye infections usually are associated with yellow discharge, and the white of the eye and the inside of the eyelids, are very red. Viral eye infections usually cause watering and redness of the eye. Many types of viruses can cause eye infections, the herpetic variety being the most sight threatening. Allergic pink eye typically is associated with itching, watering and redness and can be seasonal in nature, being caused by pollen, dust or animal dander.

Treatment of pink eye usually consists of antibiotics and/or anti-inflammatory eye drops. Allergic pink eye is treated with a variety of antihistamine, mast cell stabilizers and steroids depending on the severity. Bacterial infections are typically treated with antibiotics and herpetic viral infections are treated with antiviral medications.

## Glaucoma:

There are several types of glaucoma. The most common is Primary Open-Angle Glaucoma, POAG. Other types include secondary glaucoma, neovascular glaucoma, angle-closure glaucoma, low tension glaucoma and pigmentary glaucoma to name a few more common varieties. In most cases, the pressure in the eye is above 21 millimeters of mercury. The exception is LTG, "low tension glaucoma", where the pressure can be normal. The reason glaucoma is so significant is that the optic nerve cannot function properly in those with glaucoma and may cease functioning or function poorly. This results in the loss of vision, primarily around the center of vision initially, then potentially involving the center of vision later. Treatment involves the use of eye drops, laser and surgery, depending on how advanced the glaucoma is. Glaucoma patients have their eye pressure checked as often as every month in some cases but most patients are checked every 3-6 months. Visual field testing allows the doctors at PCVI to determine if loss of vision has occurred and is monitored usually every year, depending on the patient.

## Iritis:

This eye condition is quite common and can cause a significant amount of discomfort and light sensitivity. The inside of the eye is inflamed and this results in sensitivity to light. Typically, the cause of iritis is unknown but in some cases it can be linked to Chron's disease, arthritis and other auto-immune disorders. Most cases, when treated with eye drops, will improve quickly and not return. However, some patients may experience recurrences, causing the need for additional eye drop use to clear the inflammation. Typically, unless the condition returns several times, additional testing is not done. However, in some cases, special blood tests may be performed to determine if systemic conditions play a role in the iritis.

### Keratoconus:

Keratoconus is a condition of the front of the eye, the "cornea". This disorder causes blurred vision because the cornea becomes irregular in shape. It typically occurs in younger males and affects one eye worse than the other and is progressive. In order for the vision to be clear, the cornea must maintain its' clarity and spherical shape. Since keratoconus causes distortion and warp age to this tissue, corrective measures include the use of ridged contact lenses initially to reshape the optics of the eye. When this fails to correct the condition, a corneal transplant surgery must be done. A donor cornea is used to replace the diseased cornea of the recipient, thus restoring the shape of the eye. This is done commonly at PCVI.

### Macular Degeneration:

Macular degeneration can be divided into two categories. Dry macular degeneration is the most common and wet macular degeneration is less common but more severe. In dry macular degeneration, the central portion of the vision gradually becomes disrupted by debris which accumulates in the "macula", our most sensitive detail portion of the vision. Depending on how much of this material is present, the vision will blur and make reading or similar activities difficult. Should this condition progress significantly, central vision loss results but side vision remains. Treatment involves an increased intake of antioxidant vitamin and minerals in either supplement form or those found in certain fruits and vegetables. Studies show these can slow the progress of this condition. However, there is no surgical cure that has been shown to improve the vision. Wet macular degeneration occurs when blood vessels from the outer coatings of the eye grow into the space under the retina and then bleed. Scarring results and the loss of vision can be sudden. Careful laser treatment or surgical intervention has been shown to improve the visual outcome significantly in wet macular degeneration. Here at PCVI, our retina specialist provides the most advanced care in the treatment of macular degeneration. Should you have questions about this condition, please contact our office for a retinal evaluation.

### Pterygium:

This common condition presents as a red, thickened membrane on the white part of the eye, often extending into the clear "cornea". Typically, the three o'clock or nine o'clock positions of the eye are affected, but other locations may develop a pterygium. Growth towards the center of the cornea can be stimulated by eye irritation, sun, wind and other conditions contributing to dryness. Often a pterygium can grow toward the pupil and obscure the vision from the eye. A pterygium may increase astigmatism and may interfere with contact lens wear as well. Artificial tears are often helpful early in the disease but surgical removal may be necessary if the growth involves central vision.

## Retinal Tear:

A retinal tear occurs when the thin, fragile retinal tissue itself becomes torn, but may occur without detachment. Examination can reveal the torn tissue so treatment by means of laser or freezing can seal the tissue to prevent further tearing or progression to retinal detachment. Symptoms of a torn retina are similar to those of a vitreous detachment. Flashes of light and floaters are typical and occasionally blurring or loss of vision can occur if the tear involves a blood vessel which can cause bleeding inside the eye. Should you experience any of these symptoms, contact an eye care professional right away for evaluation and possible treatment. Our retinal specialist is experienced in the treatment and management of complex vitreous and retinal conditions. Contact our office today for an evaluation should you experience these symptoms.

## Trichiasis:

This condition involves the eyelashes growing toward the eye rather than outwardly as they should, which can cause irritation and abrasion of the cornea (the clear front portion of the eye), excessive tearing, a foreign body sensation and increased sensitivity to light. It can also result in corneal infection, conjunctive ulceration, scarring and loss of vision. Typically trichiasis is most often treated by depilation (pulling the offending lashes), and electro dialysis in some cases.

## Vein Occlusion:

This somewhat common condition can take two forms. Central vein occlusions occur when the eye's central retinal vein becomes blocked, causing hemorrhaging and swelling inside the eye. This can result in vision loss of the eye. Laser is indicated if the blockage causes "ischemia", or lack of oxygen to the retina. This secondary condition can cause weak, new blood vessels to grow, causing a risk for glaucoma and bleeding in the eye. Another form of vein occlusion results when a branch of the central vein becomes blocked. This will cause bleeding and tissue swelling in a portion of the retina and may need laser as well. The physicians at PCVI are trained in the treatment and management of this eye disorder and are ready to assist you with your medical eye care should this condition arise.