Station Tower Optometry

TREATMENT OF EYE DISEASES & DISORDERS

Dry Eye

If your eyes itch, burn or sting you may be experiencing common symptoms of “dry eye”. Other possible symptoms that may signal the presence of dry eye include a feeling of something foreign within the eye, or general eye discomfort.

What is dry eye?

Dry eye describes eyes that do not produce enough tears. The natural tears that your eyes produce are composed of 3 layers:

- The outer oily layer, which prevents or slows evaporation of the tear film
- The middle watery layer; which moisturizes and nourishes the front surface of the eye
- The inner mucus layer, which helps maintain a stable tear film

Dry eye may occur because the volume of tears produced is inadequate (we all produce fewer tears as we get older and in some cases this can lead to dry eye symptoms). It may also result because the composition of the tears has changed so that they are unstable and evaporate more quickly.

What causes dry eye?

Dry eye symptoms can result from the normal aging process. Exposure to environmental conditions, as well as medications such as antihistamines, oral contraceptives or anti-depressants, can contribute to the symptoms of dry eye. Dry eye can also result from chemical or thermal burns sustained by the eye. Dry eye may also be symptomatic of general health problems or other diseases. For example, people with arthritis are more prone to dry eye.

Will dry eye harm my eyes?

If left untreated it can. Excessive dry eye can damage tissue and possibly scar the cornea at the front of your eye, resulting in impaired vision. Dry eye can make wearing contact lenses more difficult since tear prduction may be inadequate to keep the lenses wet and lubricated. This can lead to irritation and a greater chance of eye infection, so it is important to follow the recommended treatment plan.

How is dry eye diagnosed?

During the examination, you will be asked about your general health, use of medications and work and home environments to determine factors, which may be contributing to dry eye symptoms. This information will help decide whether to perform specific dry eye tests.

To test for dry eye, diagnostic instruments that allow a highly magnified view of your eyes or small strips of paper or thread and special dyes to assess the quantity and quality of the tears may also be used.

How is dry eye treated?

Dry eye cannot be cured, but your eyes' sensitivity can be lessened and measures can be taken so that your eyes remain healthy. The most frequently employed method of treatment is the use of artificial tears or tear substitutes. For more severe cases of dry eye, ointment can be used, especially at bedtime. In some cases small plugs may be inserted in the corner of the eyelids to slow drainage and the loss of tears.

To keep dry eye symptoms in check, you and your optometrist need to work together. If you have increased dryness or redness that is not relieved by the prescribed treatment, let us know as soon as possible.

Conjunctivitis

Red, watery eyes, inflamed lids, blurred vision and a sandy or scratchy feeling in the eyes are symptoms that may indicate the presence of conjunctivitis. A pus-like or watery discharge around the eyelids could be indicative of an infectious form of the disease, commonly known as "pink eye."

Conjunctivitis is an inflammation or infection of the conjunctiva, a thin, transparent layer covering the surface of the inner eyelid and the front of the eye. It affects people of all ages.

What causes conjunctivitis?

The 3 main types of conjunctivitis are infectious, allergic and chemical. The infectious form, commonly known as "pink eye," is caused by a contagious virus or bacteria. Your body's allergies to pollen, cosmetics, animals or fabrics often bring on allergic conjunctivitis. Irritants such as air pollution, noxious fumes and chlorine in swimming pools may produce the chemical form of conjunctivitis.

It is important to prevent the spread of conjunctivitis.

If contagious, measures can be taken to prevent spreading conjunctivitis to others:

- Keep your hands away from your eyes
- Thoroughly wash hands before and after applying eye medications
- Do not share towels, washcloths, cosmetics or eye drops with others
- Seek treatment promptly

Small children, who may forget these precautions, should be kept away from school, camp and swimming pools until the condition has been cured.

Certain forms of conjunctivitis can develop into a serious condition that may harm your vision, so it is important to have conjunctivitis diagnosed and treated without delay.

How is infectious conjunctivitis treated?

Because it is caused by bacteria, Infectious conjunctivitis is typically treated with antibiotic eye drops and/or ointment. Other infectious forms caused by viruses can't be treated with antibiotics and must be fought off by your body's immune system. On occasion antibiotics may be prescribed for viral conjunctivitis in order to prevent the development of secondary bacterial infections.

How are the allergic and chemical forms of conjunctivitis treated?

The ideal treatment for both allergic and chemical types of conjunctivitis is to remove the cause of the allergy or irritation. For instance, avoid contact with any animal if it causes an allergic reaction; wear swimming goggles if chlorinated water irritates your eyes. In cases where these measures

won't work, prescription and over-the-counter eye drops are available to help relieve the discomfort.

Blepharitis

If your eyelids are red and irritated around the rim, if they burn and itch, or if you've noticed an oily discharge or scaly skin around them, you may have an inflammatory problem called "blepharitis". Some people describe it as "psoriasis of the eyelids".

Blepharitis may be either of 2 main types, or a combination of both.

Seborrheic blepharitis

Characterized by an excessive discharge of oil/grease from the skin around the eyelids, seborrheic blepharitis is usually accompanied by similarly greasy hair and skin.

Staphylococcal blepharitis

Caused by a bacterial infection, staphylococcal blepharitis is more likely to result in infective eyelid conditions, such as sties.

What are the treatments?

To treat seborrheic blepharitis, keep the lid edges and surrounding skin clean by regularly scrubbing the area with a mild soap. Medicated pads specifically designed to relieve this condition are also available. For staphylococcal blepharitis, ointments containing antibiotics and sulfonamides should be applied to the edges of the eyelids using a cotton ball.

While over-the-counter treatments for blepharitis are available, it is advisable to seek professional help the first time you experience the condition. If you have had blepharitis before and are experienced with its treatment, using the over-the-counter ointments may be adequate. But whether you have had the condition before or not, if the blepharitis is infectious, you should get appropriate treatment as soon as possible to reduce the risk of spreading the infection and causing more serious conditions.

Glaucoma

The scariest thing about glaucoma is that it can steal your vision gradually and without your noticing. The best defense against glaucoma is having regular eye examinations performed. Glaucoma most often strikes people over the age of 50, but it is recommended that every adult be tested at least every 2 years.

Some people with glaucoma do experience symptoms, but symptoms vary depending on the type of glaucoma contracted.

Primary open-angle glaucoma

By far the most common type, primary open-angle glaucoma develops gradually and painlessly. Since there are no early warning signs it can slowly destroy your vision without your knowing it. The first indication may only occur after some considerable vision loss.

Acute angle-closure glaucoma

Acute angle-closure glaucoma results from a sudden blockage of the drainage channels within your eye that causes a rapid build-up of pressure inside your eye. It is typically accompanied by blurred vision, the appearance of colored rings around lights and sometimes extreme pain or redness in the

eyes.

What is glaucoma?

The build-up of pressure inside your eye leads to glaucoma. Aqueous fluid, which fills the space at the front of the eye just behind the cornea, is manufactured behind the iris (the colored part of the eye) in the ciliary body. It flows through the pupil (the dark hole in the center of the iris) and drains from the 'anterior chamber angle', which is the junction between the edge of the iris and the cornea. If this outflow of liquid is impaired at all the result is a build-up of pressure inside the eye, which can cause damage to the optic nerve, which carries visual images to the brain. The result is a loss of peripheral vision. Thus, while glaucoma sufferers may be able to read the smallest line on the vision test, they may find it difficult to move around without bumping into things, or to see moving objects to the side.

What causes glaucoma?

Some causes are known, others are not. Causes differ depending on the type of glaucoma. The exact cause of open-angle glaucoma, where the drainage channels for the aqueous appear to be open and clear, is not known. Closed-angle glaucoma can occur when the pupil dilates or gets bigger and bunches the iris up around its edge, blocking the drainage channel. An injury, infection or tumor in or around the eye can also cause internal eye pressure to rise, either by blocking drainage or displacing tissues and liquid within the eye. A mature cataract also can push the iris forward to block the drainage 'angle' between the iris and the cornea. Glaucoma can occur secondarily to a number of other conditions, such as diabetes, or as a result of some medications for other conditions.

Who gets glaucoma?

Glaucoma most frequently occurs after age 40, but can occur at any age.

Persons of African heritage are more likely to develop open-angle glaucoma -- and at an earlier age -- than Caucasians. Asians are more likely to develop narrow-angle glaucoma.

You have a higher risk of developing glaucoma if a close family member has it or if you have abnormal blood pressure or high blood sugar (diabetes). There is also a greater tendency for glaucoma to develop in individuals who are nearsighted. Those at heightened risk for glaucoma should have their eyes checked at least once a year.

Why is glaucoma harmful to vision?

The optic nerve, located at the back of the eye, carries visual information to the brain. As the fibers that make up the optic nerve are damaged by glaucoma, the amount and quality of information sent to the brain decreases and a loss of vision occurs.

Will I go blind from glaucoma?

If diagnosed at an early stage, glaucoma can be controlled and little or no further vision loss should occur. If left untreated, side awareness (peripheral vision) and central vision will be destroyed and blindness may occur.

How is glaucoma detected?

Tests for glaucoma are part of a comprehensive eye examination. A simple and painless procedure called tonometry measures the internal pressure of your eye. Ophthalmoscopy examines the back of the eye to observe the health of the optic nerve. A visual field test, a very sensitive test that checks

for the development of abnormal blind spots, may also be completed.

The gold standard for diagnosing and treating glaucoma also includes optic nerve head imaging, using either a Heidelberg Retinal Tomographer (HRT) or an Optical Coherence Tomographer (OCT).

How is glaucoma treated?

Glaucoma is usually treated with prescription eye drops and medicines. In some cases, surgery may be required to improve drainage. The goal of the treatment is to prevent loss of vision by lowering the pressure in the eye.

Will my vision be restored after treatment?

Unfortunately, any vision loss as a result of glaucoma is permanent and cannot be restored. This is why regular eye examinations are important.

Glaucoma cannot be prevented, but early detection and treatment can control glaucoma and reduce the chances of further damage to the eye and a loss of sight.

Age-Related Macular Degeneration (ARMD)

Age-related macular degeneration (ARMD) is the most common cause of irreversible vision loss for people over the age of 60. It is estimated that 2.5 million people in developed countries will suffer visual loss from this disorder and that there are approximately 200,000 new cases diagnosed every year.

Macular degeneration is most common in people over the age of 65, but there have been some cases affecting younger people in their 40s and 50s. Symptoms include blurry or fuzzy vision; straight lines, such as telephone poles and sides of buildings, appear wavy and a dark or empty area may appear in the center of vision.

Sties (hordeolum)

A small area of redness and pain on the margin of your eyelid may indicate that you have a stye, known in medical terms as an external hordeolum. A stye is a blocked gland at the edge of the lid that has become infected by bacteria, usually staphylococcus aureus.

The area of redness and pain will eventually form a ‘point’. Until this occurs, warm compresses should be applied to the area for 15 minutes 3-to-4 times a day. Often times, antibiotics are prescribed to assist in the resolution of a stye.

Diabetes and the Eyes

Diabetes, a disease that prevents your body from making or using insulin to break down sugar in your bloodstream, can affect your eyes and your vision.

Fluctuation or blurring of vision, intermittent double vision, loss of peripheral vision and flashes and floaters within the eyes may be symptoms related to diabetes. Oftentimes the early signs of diabetes may be detected during a thorough eye examination.