

# healthy LIVING

## Dry Eye Disease

One of the most common things that patients complain about in my office this time of year is symptoms related to Dry Eye Disease. Although Dry Eye is very common in the population, it is probably one of the most under-diagnosed and under-treated problems that patients deal with. The most common symptom of Dry Eye is tearing, which often confuses patients as to what their real problem is. Patients ask: "If my eyes are wet all the time, then how can they possibly be dry?"

In order to address the problem successfully, it's very important to understand how tears work under normal circumstances and why Dry Eye happens in the first place. It is my goal in writing this article to help provide a better understanding of the problem and the treatments for it.

Normally, the eye is bathed in a layer of tears which provide nutrients to the surface of the eye, as well as lubrication to help maintain comfort. With each blink, tears are spread across the cornea, providing clear vision and protection for the surface. In a healthy eye, lubricating tears are produced at a slow, constant rate by the tear glands. In addition, the eye can produce a watery tear solution at a more rapid pace in response to emotions (crying) or irritants like onions or pollen. This reflexive tearing actually worsens the Dry Eye symptoms by rinsing any remaining natural lubrication off the surface of the eye.

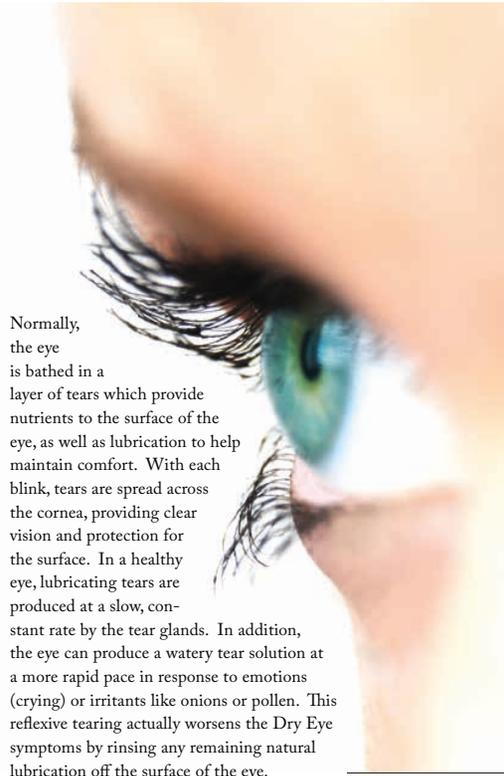
A healthy tear film on the surface of the eye is composed of 3 layers: an oily layer, a salt water layer, and a mucus layer. Each layer has a specific role in maintaining a properly hydrated and healthy ocular surface. The proper balance and proportion of each layer relative to the others is critical to good vision, comfort and ocular surface health.

Dry Eye Disease is a condition in which the tear film is inadequate either in quantity or in quality. Signs and symptoms of Dry Eye Disease can include: dryness, burning, sandy or gritty sensation, intermittent sharp stabbing pain, tired eyes, and redness.

### Dry Eye can vary in severity due to a number of different factors:

**Age:** As people age, tear production decreases.

**Gender:** Women are generally drier than men and tend to produce fewer tears; hormonal changes associated with menopause and pregnancy can further reduce tear production.



**Environment:** As humidity decreases, Dry Eye symptoms increase. Dry eye symptoms are also made worse by windy conditions. Both are due to more rapid evaporation of tears from the surface of the eye into the environment.

**Eye Surgery:** Previous eye surgery, especially LASIK surgery, can make people with Dry Eye even more symptomatic.

**Medications:** Many medications, including those used for high blood pressure and depression, as oral contraceptives, and anti-histamines all tend to cause a reduction in tear volume. As a rule of thumb, if a medication causes dry mouth, chances are good that it will also cause Dry Eye.

**Eyedrops:** Over-the-counter "get-the-red-out drops," such as Visine® severely worsen Dry Eye symptoms. (Although these types of drops may temporarily relieve symptoms, they all cause worsening of the underlying problem, and thus should be avoided.)

**Disease:** Systemic diseases such as Diabetes, Rheumatoid Arthritis, Lupus, and many other auto-immune conditions all result in the inability of the tear glands to function properly.

**Blepharitis and Ocular Rosacea:** Diseases such as these, which result in derangement of oil production from the oil glands in and around the eyelids, cause worsening of dry eye symptoms. If oil production is either inadequate or excessive, the oily layer becomes imbalanced, and both conditions lead to excessive evaporation of tears from the surface of the eye.

### Treatment options include the following:

**Artificial tear solutions:** Over-the-counter, artificial tear solutions are frequently sufficient for treating mild Dry Eye Symptoms. It is important to choose a high quality, brand name product. Even better is to use a Preservative-Free tear formulation. Tears with certain preservatives can be irritating to or even toxic to the cornea when used frequently. The most important aspect of using artificial tears is to make sure they are being used frequently enough and consistently enough to bring about complete elimination of the symptoms.

**Prescription drugs:** RESTASIS® can be used to treat moderate and severe cases of Dry Eye Disease. It is a very potent, anti-inflammatory medication which can help to improve base-line tear production rate as well as the quality of the tear film. To be effective, RESTASIS® must be used on a continual basis.

**Punctal Occlusion:** Restricting the flow of tears from the surface of the eye can be accomplished by using either temporary silicone plugs inserted into the openings of the tear drainage system of the lower eyelids, or by permanently surgically closing these openings. This helps to keep the tears that are being produced on the surface of the eye longer.

**Nutritional Supplements:** Nutritional supplements such as Flaxseed Oil and Omegas 3, 6, 9 can help to improve the quality of the overall tear film.

**Treatment for underlying oil gland disease:** Proper treatment of Ocular Rosacea and blepharitis are critical to the successful management of Dry Eye. If an underlying oil gland problem is not diagnosed, then symptoms might not improve as expected. Your doctor can easily determine if such a problem exists and what treatments might help.

The things I most commonly tell my own patients are: If your skin is dry, so is the surface of your eyes. Using artificial tears is like putting lotion on your skin. One application of lotion is not going to cure dry skin any more than one application of tears will cure dry eye. If you want artificial tears or RESTASIS® to work, you actually have to use the drops. Leaving them on the bathroom counter and looking at them every day doesn't help to solve the problem. Making the treatment of dry eye a part of any daily routine is the best way to control the problem and reduce symptoms. No therapy for Dry Eye Disease can cure the problem. It is therefore critical to maintain a consistent and individualized regimen of treatment in order to keep symptoms to a minimum.

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Your Heart is Our Specialty

<p><b>920,000</b></p> <p style="font-size: x-small;">This year more than 920,000 Americans will have a heart attack; nearly half of them will occur without prior symptoms or warning signs.</p>	<p><b>33 secs</b></p> <p style="font-size: x-small;">Someone dies from cardiovascular disease every 33 seconds in the United States.</p>	<p><b>75%</b></p> <p style="font-size: x-small;">Out of people who suffer from a heart attack, 75% of them survive at least three years.</p>
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<p><b>2 hrs 30 min</b></p> <p style="font-size: x-small;">Moderate intensity exercise for 2 hours and 30 minutes every week is recommended for adults.</p>	<p><b>80%</b></p> <p style="font-size: x-small;">80% of premature heart attacks and strokes are preventable with a healthy diet, not using tobacco products, and regular physical activities.</p>	<p><b>83.6</b></p> <p style="font-size: x-small;">83.6 million Americans are living with cardiovascular diseases.</p>
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