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## **Understanding Dry Eye**

### What is dry eye?

Our eyes are always shedding tears. These tears are not caused by sadness or pain, they are made to create a "tear film." The tear film protects the eyes and gives them moisture that is needed for clear and healthy vision. The tear film is made up of three layers:

- · Fat-based oils
- · A thin, watery fluid
- · Mucus

This combination normally keeps the surface of your eyes lubricated, smooth and clear. Problems with any of these layers can cause dry eyes. When this happens, blinking cannot create the moist "tear film" needed to protect and soothe the eye. The discomfort that results from dry eyes may affect how you see. In rare cases, dry eye can decrease your vision. Proper care and treatment can help relieve your symptoms of dry eye.

#### What are the causes?

Dry eye occurs when there is not enough tear film produced, the tear film Is not draining properly from the eye, or the tear film is not the quality needed to maintain the health of the eye.

Dry eye is common, with more than 16 million Americans having moderate to severe symptoms. Women are twice more likely to develop dry eye than men. Women who are pregnant, on certain types of birth control, hormone replacement therapy, or

experiencing menopause are also more likely to have dry eye.

#### Risk factors of dry eye include:

- · Being more than 50 years old
- Hormonal changes
- Refractive surgery (for example, Lasik)
- · Inflammation of the eyelids
- Environmental conditions, such as allergies, exposure to smoke, or a dry climate
- · Contact lenses

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- Certain medications (including those used to treat eye conditions such as glaucoma)
- Meibomian gland dysfunction (MGD): a condition when the eyelid glands do not produce enough oil or it is poor quality.
- Medical conditions such as Rheumatoid arthritis, Sjogren's syndrome, and certain other autoimmune diseases

Be sure to talk with your eye doctor to determine if there is an underlying cause to your dry eye. Your eye doctor will talk with you about your medical history, environmental risks, and medications. Your eye doctor will also examine of your eye and assess the quality and quantity of the tears you produce.

### What are the symptoms?

People with dry eye complain of:

- Burning or stinging
- · Particles in the eye
- Gritty, sandy feeling
- · Itchiness
- · Redness and inflammation
- Stringy mucus
- Extreme sensitivity, especially to cigarette smoke
- · Transient blurry vision
- · Increased sensitivity to light

Having these symptoms may mean that you have dry eye, but they may also be caused by other conditions. A thorough evaluation by your eye doctor is needed to determine the exact cause of these vision symptoms.

# What can you do to prevent dry eye symptoms?

- Humidifier: The use of a humidifier helps keep natural moisture in the air and can help with dry eye symptoms.
   A humidifier is helpful for dry rooms, such as those with air heaters or air conditioning.
- Avoid low humidity
   conditions (if possible):
   Hair dryers, harsh winds and
   cigarette smoke should be
   avoided whenever possible. In
   addition, limit air conditioning,
   forced air heating, windy
   conditions, and in airplanes
   or cars when the heater or
   defroster is on.
- Take frequent screen breaks:
   When using a computer or other electronic device, it is important to remember to blink often and give the eyes frequent rests from staring at the screen (every 20 minutes).
- Drink water: Make sure you keep your body and your eyes hydrated by drinking water.
- Talk to your eye care professional: If your dry eye is related to an eye condition, such as contact lens wear or the chronic use of glaucoma eye drops, talk to your eye care professional about your options.

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You can also discuss with your eye care professional if taking vitamins or supplements can help with your symptoms of dry eye.

## How can I relieve the discomfort and irritation?

It is important to talk with an eye care professional about your options to help relieve the discomfort and irritation from dry eye.

 Over-the-counter eyedrops and ointments: Any pharmacy carries over-the-counter tear film replacements called "artificial tears." These eyedrops may replace the natural tear film of the eye and provide improved moisture. Artificial tears come in various brands that have different ingredients, including preservatives and preservative-free versions. Ointments can be used before bedtime to make sure your eyes stay lubricated during the night. Frequent use of these preparations, particularly those with preservatives, for long periods of time, may cause toxic irritation or even allergic reactions. Over-the-counter artificial tears solutions are not a treatment for dry eye, although they can lessen the symptoms. It is important to talk with an eye care professional

before using these or any other eye drops. It is important to take your eyedrops properly.

- Eyelid Care: If the cause of your dry eye is eyelid irritation, your eye doctor may recommend warm compresses on the eye, massaging your eyelids, or eyelid cleanser.
- Prescription medications: If you have a more serious case of dry eye, your eye doctor may suggest eye drop medication that will help your eyes make more tears.
- Tear duct plugs: Dry eye can occur when the eye drains too much tear film before it has the chance to provide moisture for the eye. To help keep tears in your eyes, your eye doctor can put plugs in your tear ducts that are located at the inner corners or your eye. These plugs can be removed if needed.
- Surgery: For some, dry eye is caused by your bottom eyelids being too loose. Your eye doctor may suggest surgery to tighten your eyelids to keep tears in your eyes.

Dry eye is often misdiagnosed and can cause damage to the front of the eye. If you think that you may have dry eye you should visit an eye care professional for a full eye examination.

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