

## Dry Eye Syndrome



Dry eye syndrome is a chronic lack of sufficient lubrication and moisture on the surface of the eye.

Its consequences range from subtle but constant irritation to ocular inflammation of the anterior (front) tissues of the eye.

Dry eyes also are described by the medical term, keratitis sicca, which generally means decreased quality or quantity of tears. Keratoconjunctivitis sicca refers to eye dryness affecting the cornea and conjunctiva.

### Dry Eye Syndrome Symptoms

Persistent dryness, scratching and burning in your eyes are signs of dry eye syndrome. These symptoms alone may prompt your eye doctor to diagnose dry eye syndrome.

But sometimes Dr. Lothes may want to measure the amount of tears in your eyes. A thin strip of filter paper placed under the lower eyelid, called a Schirmer test, is one way to measure tear production.

Another symptom of dry eyes is a "foreign body sensation," the feeling that something is in the eye.

And it may seem odd, but sometimes watery eyes can result from dry eye syndrome, because the excessive dryness works to overstimulate production of the watery component of your eye's tears.

### What Causes Dry Eyes?

Tears bathe the eye, washing out dust and debris and keeping the eye moist. They also contain enzymes that neutralize the microorganisms that colonize the eye. Tears are essential for good eye health.

In dry eye syndrome, the lacrimal gland or associated glands near the eye don't produce enough tears, or the tears have a chemical composition that causes them to evaporate too quickly.

Dry eye syndrome has several causes. It occurs as a part of the natural aging process, especially during menopause; as a side effect of many medications, such as antihistamines, antidepressants, certain blood pressure medicines, Parkinson's medications and birth control pills; or because you live in a dry, dusty or windy climate.

If your home or office has air conditioning or a dry heating system; that too can dry out your eyes. Another cause is insufficient blinking, such as when you're staring at a computer screen all day.

Dry eyes also are a symptom of systemic diseases such as lupus, rheumatoid arthritis, ocular rosacea or Sjogren's syndrome (a triad of dry eyes, dry mouth and rheumatoid arthritis or lupus).

Long-term contact lens wear is another cause; in fact, dry eyes are the most common complaint among contact lens wearers.

## Dry Eye Syndrome (continued)

Recent research indicates that contact lens wear and dry eyes can be a vicious cycle. Dry eye syndrome makes contact lenses feel uncomfortable, and the rubbing of the lenses against the conjunctiva seems to be a cause of dry eyes.

Incomplete closure of the eyelids, eyelid disease and a deficiency of the tear-producing glands are other causes.

Tears are composed of three layers:

- the outer, oily lipid layer;
- the middle, watery, lacrimal layer;
- and the inner, mucous or mucin layer

Each layer is produced by different glands near the eye. The lacrimal gland located above the outer corner of the eye produces the lacrimal layer, for example. So a problem with any of those sources can result in dry eyes.

Dry eye syndrome is more common in women, possibly due to hormone fluctuations. A recent study also indicates that the risk of dry eyes among men increases with age.

Recent research suggests that smoking, too, can increase your risk of dry eye syndrome.

With increased popularity of cosmetic eyelid surgery (blepharoplasty) for improved appearance, dry eye complaints now occasionally are associated with incomplete closure of eyelids following such a procedure.

### Treatment for Dry Eyes

Dry eye syndrome is an ongoing condition that may not be completely curable (depending on the cause), but the accompanying dryness, scratchiness and burning can be managed. Dr. Lothes may prescribe **artificial tears**, which are lubricating eye drops that may alleviate the dry, scratching feeling.



Left: Artificial tears help dry eyes feel better; don't confuse them with formulas that just reduce redness.

[Restasis](#) eye drops (cyclosporine in a castor oil base) go one step further: by helping your body produce more tears. Restasis treatment is the first of its kind.

Sometimes people use the eye drops that "get the red out" to treat their dry eyes. This won't work unless the eye drops also contain artificial tears, and the original "get-the-red-out" formulation doesn't. These drops can reduce or eliminate the redness temporarily, but they don't treat the cause of the redness, whether it's dryness, environmental irritation or some other problem such as oral medication.

Not only that, but the vasoconstrictors in those formulas that reduce redness by constricting the eye's blood vessels are addictive, in the sense that over time, more and more is needed to achieve the same effect. With frequent use, the effect diminishes after a while — the blood vessels simply won't constrict as much as they did when you first used the drops, and over dilate when the medication wears off.

## Dry Eye Syndrome (continued)

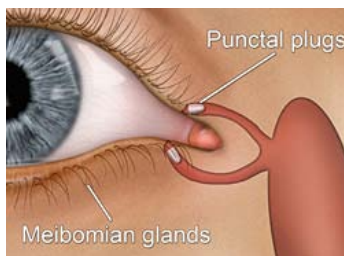
If you wear contact lenses, be aware that many eye drops, especially artificial tears, cannot be used while your contacts are in your eyes. You'll need to remove them before using drops and wait 15 minutes or even longer (check the label) before reinserting the lenses.

If your eye dryness is mild, then contact lens rewetting drops may be sufficient to make your eyes feel better, but the effect usually is only temporary.

Check the label, but better yet, check with your Dr. Lothes before buying any over-the-counter eye drops. It will probably save you a lot of money, because he will know which formulas are effective and long-lasting and which ones are not, as well as which eye drops will work with your contact lenses.

If the problem is environmental, wear sunglasses when outdoors to reduce exposure to sun, wind and dust. You may want to try the kind that has foam or other type of seal at the sides and/or a close-fitting, wrap-style frame to keep wind and dust from getting behind the lenses and in your eyes.

Indoors, an **air cleaner** can filter out dust and other particles from the air, while a **humidifier** adds moisture to air that's too dry because of air conditioning or heating.



Temporary or permanent silicone plugs can be inserted in the lacrimal (tear) drainage ducts in your eyelids to keep tears on your eye from draining away as quickly. Called **lacrima l plugs or punctal plugs**, they can be inserted painlessly while you're in the eye doctor's office and normally are not felt once inserted.

Doctors sometimes recommend special nutritional supplements for dry eyes. Studies have found that supplements containing certain essential fatty acids (linoleic and gamma-linolenic) can decrease dry eye symptoms. We offer these nutritional supplements in our office for your convenience. Ask Dr. Lothes which supplement is best for you.

You also could eat more cold-water fish, such as sardines, cod, herring and salmon, which contain omega-3 fatty acids. Some eye doctors specifically recommend flaxseed oil to relieve dry eye.



Right: Salmon is a good source of omega-3 fatty acids, which may reduce your risk for dry eyes. Sardine, herring and cod liver oils are even better, or try a supplement.

**Drinking more water** can help, too (see below).



### Are You Drinking Enough Water?

Mild dehydration may make dry eye problems worse. This is especially true during hot, dry and windy weather. But the symptoms of dry eye syndrome may be improved by simply drinking more water.

The Institute of Medicine recommends that each day, women need 91 ounces of water and men need about 125 ounces. Experts agree that about 20 percent of the water your body needs comes from the food you eat, while the rest originates from the fluids you drink.

The best choices for beverages are water, 100 percent fruit and vegetable juices and milk.

## Dry Eye Syndrome (continued)

**If medications are the cause** of dry eyes, discontinuing the drug generally resolves the problem. But in this case, the benefits of the drug must be weighed against the side effect of dry eyes. Sometimes switching to a different type of medication alleviates the dry eye symptoms while keeping the needed treatment. In any case, never switch or discontinue your medications without consulting with your doctor first!

**Treating any underlying eyelid disease**, such as blepharitis, helps as well. This may call for antibiotic or steroid eye drops plus frequent eyelid scrubs with an antibacterial shampoo. If contact lens discomfort is the cause of your dry eyes, Dr. Lothes may want to switch you to a different lens or have you wear your lenses for fewer hours each day. In some cases, it is recommended that contact lens wear be discontinued altogether until the dry eye problem is cleared up.

*Want to learn more? Please call Dr. Lothes at (614) 841-9300 to set-up an examination and consultation.*