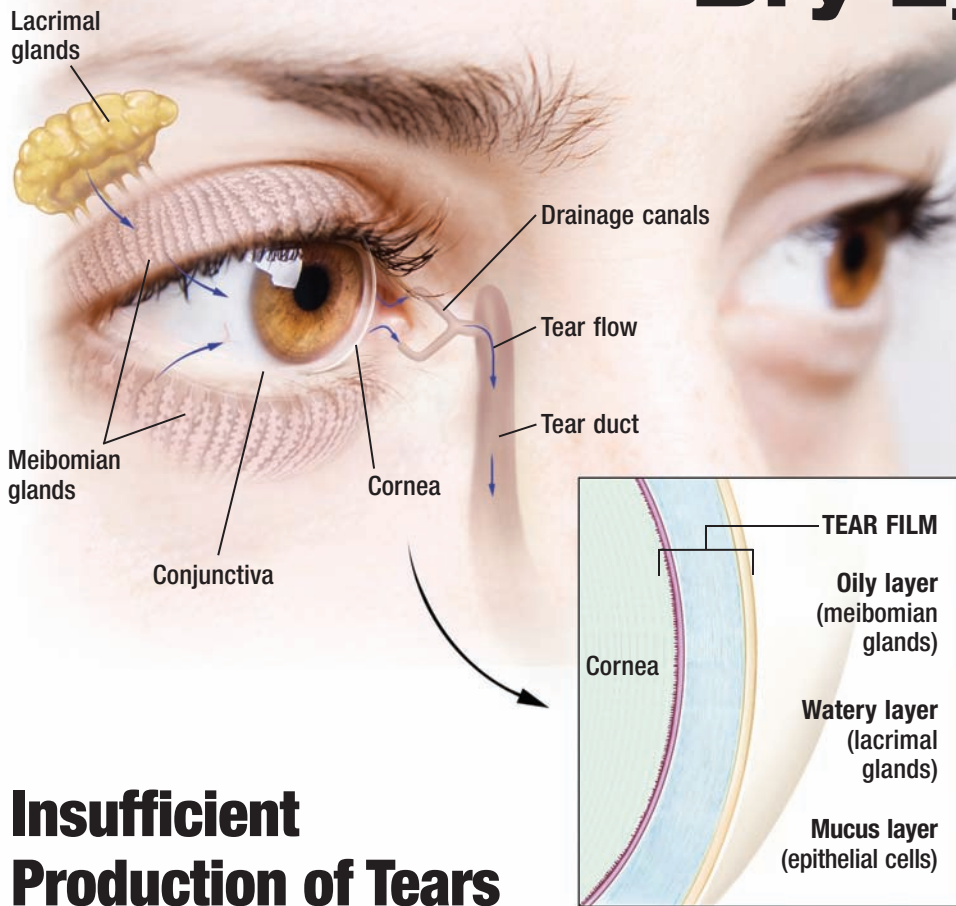


# Dry Eye



## Insufficient Production of Tears

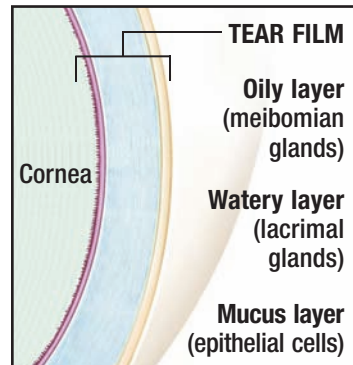
Tears are important for the health of the eye. They bathe the cornea—the clear outer surface of the eye—keeping it moist, comfortable, and clean. Tears also protect the eye from infection.

When fewer tears are produced to keep the eye comfortably lubricated, or when tears are not moisturizing enough and dry up quickly, a condition known as dry eye syndrome can result. Dry eye is often an occasional problem for people who stare for long periods at a computer screen or travel frequently by airplane. It can also be one of the symptoms of an autoimmune disease, such as lupus, rheumatoid arthritis, or Sjögren's syndrome. Many people complain of the symptoms of dry eye as they grow older, since tear production decreases with age. Many drugs, including hormones, antihypertensive medications, decongestants, and antihistamines, can cause dry eye. Certain eyelid problems that interfere with blinking can also lead to dry eye.

Symptoms of dry eye may occur occasionally or may be a chronic condition. Some of the more common symptoms are irritation, burning, pain, redness, itching, fuzzy vision, and stringy mucus in the eye.

Treatment for dry eye begins by determining the cause of the problem. The first step is to eliminate any treatable cause, such as allergies or medications. Avoiding environments or situations that exacerbate dry eye is helpful. There are many artificial tear eyedrops, eye ointments, and eye gel inserts available to increase lubrication. These products may be helpful in mild or moderate cases of dry eye syndrome. Patients with severe dry eye syndrome who cannot be treated by other means may be candidates for punctal plugs, which are small, removable plugs in the tiny drainage holes at the inner corners of the eyelids where tears drain. Plugging these drainage holes help increase the amount of tears that moisturize the cornea.

## Causes Range From Aging to Certain Drugs to Environmental Factors



Dry eye can be mild or severe, and symptoms can be occasional or chronic. There are many causes of *dry eye syndrome*, including systemic diseases, drugs, and aging. The condition is more common in women, especially postmenopause. There are also several eye problems that can lead to dry eye syndrome, including inflammation of the eyelids. People who live or work in dry environments or who stare for long periods of time without blinking are at higher risk for developing dry eye.

*Tears are composed of three layers, each layer produced by different glands, so a problem with any of those sources can result in dry eye.*

### Diagnosing Dry Eye Syndrome

The diagnosis of dry eye syndrome is made using a history of symptoms, visual inspection of the eye, and tests to determine if the amount of tears and their moisturizing ability are adequate. An optometrist can use simple office tests to make a rough estimate of the amount of tears produced, how well they cover the cornea, and the time it takes for tears to evaporate.

Contact lenses may be a problem for people with dry eye syndrome. The type of lens or length of wear time may need to be adjusted to increase eye moisture. Contact lenses may not be an option to correct vision in some cases of chronic dry eye.

### Moisturizing Eyedrops Relieve Symptoms

Treatment for dry eye depends on the severity of the condition and its cause. If a cause can be identified and treated, dry eye syndrome can often be improved. Inflammation of the eyelids may be relieved by placing a warm washcloth over the eyes for a few minutes, then washing the eyelids with a mild soap or special cleanser recommended by an eye care professional. In mild cases of dry eye, moisturizing eyedrops or eye ointments can give relief. Nonprescription eyedrops that simply lubricate the cornea are available with preservatives or in single-use packets that are preservative free. These moisturizing eyedrops are best without preservatives if they are used more than four times a day. Eye ointments often blur vision, so they are best used before bedtime. A twice-daily prescription eyedrop of cyclosporine can oftentimes relieve dry eye due to inflammation of the cornea. Antibiotic or corticosteroid eyedrops may be required for a short period if the eyelids are inflamed.

In severe cases, when eyedrops or ointments are not sufficient to provide lubrication, a tiny eye gel insert can be placed inside the lower lid once a day. The insert slowly dissolves, lubricating the eye throughout the day. Punctal plugs as a temporary measure or a more permanent surgical closure of the tear duct drainage holes is sometimes necessary to retain sufficient tears in the eyes.

Simple lifestyle changes can also help improve symptoms of dry eye syndrome. These include wearing wrap-around sunglasses in the wind, increasing the humidity levels at home, taking breaks when staring at the computer, and avoiding drafts that blow directly on the face whenever possible.

If you have questions about dry eye syndrome or the OTC or prescription eyedrops used to treat this problem, ask your pharmacist. Your pharmacist can also show you how to properly insert eyedrops, gels, or ointments.