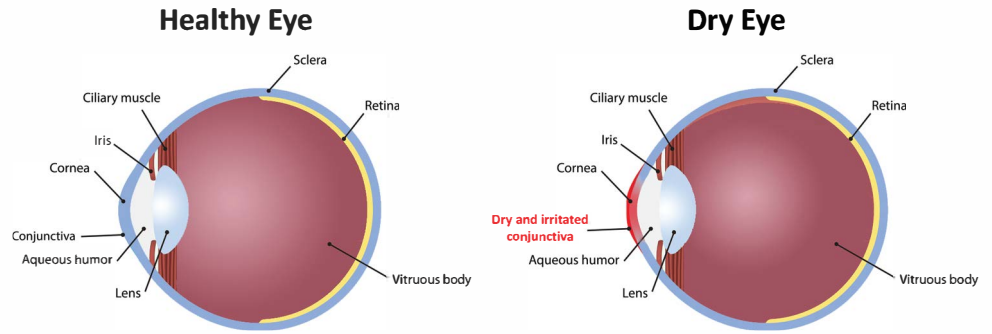


## DRY EYES

### DRY, STINGING, BURNING EYES CAUSED BY IMPROPER LUBRICATION OR A LACK OF TEARS

Dry eye, a common eye problem, can be caused by a lack of tear production or rapid evaporation. Tears normally keep the eyes moistened and lubricated. However, stinging, burning, dryness, and redness will result if tears are not sufficient to keep the eyes wet and comfortable.

While discomfort is the primary result of dry eyes, infection and corneal scarring may occur if left untreated.



#### WHAT IS THE TEAR FILM?

The tear film, which constantly covers the eye, is made up of three layers. The oily outer layer reduces evaporation of the tears. The watery middle layer cleanses the eye and washes away foreign particles or irritants. The inner layer consists of mucus which coats the surface evenly and allows the tears to adhere to the surface of the eye.

#### WHAT CAUSES DRY EYES?

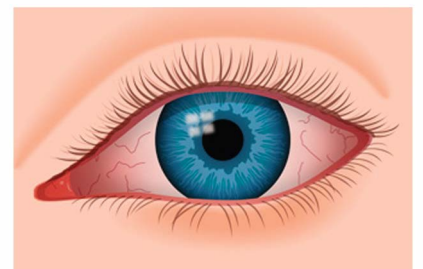
Normally, tear production decreases with age, leaving the delicate eye tissues exposed to the irritating effects of the environment and pollution. Dry eyes are more common with contact lens wearers and women, especially during pregnancy.

Certain medications may also cause dry eyes by reducing tear secretion. In addition, environmental factors such as sun, wind, pollution, dry air from heating or air conditioning and smoke contribute to the occurrence of dry eyes. Lack of sleep, poor diet, and dehydration are also common causes.

#### WHAT ARE THE SYMPTOMS OF DRY EYES?

Patients with dry eyes often complain that their eyes feel gritty, itchy and dry. Other common symptoms include burning, stinging, redness, and sensitivity to light.

Surprisingly, watering of the eyes is also a symptom of dry eyes, as excess tears are produced in response to irritation. However, these excess tears are "crying tears" which consist mostly of water. The excess tears lack the oil necessary to keep them from evaporating and, therefore, do not function to lubricate the eye.



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### HOW ARE DRY EYES TREATED?

Artificial tears are the most common treatment for dry eyes. Eye drops are used to lubricate the eyes and replace missing moisture.



#### REGULAR TEARS

Usually these types of lubricants are used 2-4 times daily for relief of symptoms.



#### NON PRESERVED TEARS

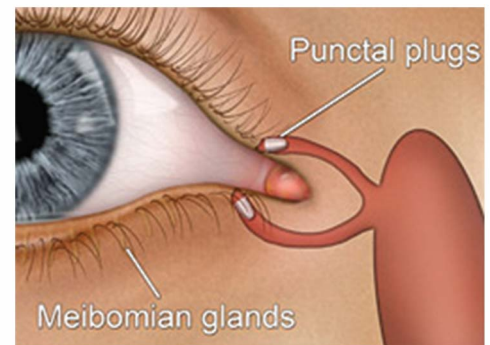
Some patients who are sensitive to preservatives require special preservative free artificial tears.



#### GEL TEARS

A gel eyedrop at bedtime may be required in more severe cases.

If artificial tears alone fail to provide sufficient relief from dry eyes, temporary closure of the punctum may be performed to determine if eye discomfort is resolved. A tiny punctal plug, about the size of a grain of rice, is painlessly placed in the tear drainage canals. The plugs permit only a small percentage of tears to pass into the punctum, thus building up a layer of tears on the surface of the eye. The plugs are absorbed by the body in a few days, giving the patient and doctor time to evaluate the effectiveness and comfort provided by an increase in the amount of tears on the surface of the eye.



If improvement is noted the punctum may be blocked by the insertion of permanent punctal plugs. These plugs remain in place unless removed. This procedure can usually be performed in the office and is painless, as a local anesthetic is administered before the treatment. Although it is possible to reopen the punctum once it has been closed, the need to do so is rare.

### PREVENTION IS THE BEST MEDICINE

Early detection and management of dry eye syndrome is important to arrest or slow the development of the more sight damaging stages of the disease. Even when no symptoms are noticed, the dry eye patient should have frequent eye examinations, as recommended by their Coachella Valley Optometry doctor.

If you are experiencing the symptoms of dry eye syndrome or other vision problems, you should obtain a complete eye examination with one of our doctors at Coachella Valley Optometry immediately. Left untreated dry eye can lead to other more serious conditions including corneal ulcers, infection and conjunctivitis.