



## Dry eyes

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### Introduction

Dry eye syndrome is a common condition associated with a chronic lack of sufficient lubrication and moisture on the surface of the eye. Consequences of dry eyes range from subtle but constant eye irritation to significant inflammation and even scarring of the front surface of the eye. The specific type of dry eye will often determine the choice of treatment recommended to provide relief from dry eye symptoms.<sup>1,2</sup>

### What causes dry eyes?

An adequate and consistent layer of tears on the surface of the eye is essential to keep the eyes healthy, comfortable and seeing well. Tears bathe the eye's surface to keep it moist and wash away dust, debris and microorganisms that could damage the cornea and lead to an eye infection.<sup>1,3,4</sup> The tear film has three basic layers: oil, water and mucus. Problems with any of these layers may cause dry eyes.<sup>1,2</sup> Tears may be inadequate for many reasons. For example, dry eyes may occur if there is insufficient tear production or poor-quality tear production.<sup>2</sup>

### Risk factors

Dry eye commonly occurs in people who are otherwise healthy.<sup>3</sup> It becomes increasingly common later in life, especially after the age of 50, as tear production slows with advancing age.<sup>2,4</sup>

### Dry eye symptoms

**Signs and symptoms, which usually affect both eyes, may include<sup>1-4</sup>:**

- A stinging, burning or scratchy sensation in the eyes
- Tired, red eyes
- Itchiness (particularly in the corners of the eyes)

### Table I. Risk factors associated with dry eyes

Some of the factors that cause or contribute to dry eye include<sup>1-4</sup>:

- Irritants, such as cigarette smoke, dust or chemical exposure.
- Wearing contact lenses.
- Hormonal changes in women due to pregnancy, using birth control pills or menopause.
- Dry environment or workplace (wind, air conditioning).
- Sun exposure and dry or windy conditions.
- Medications such as antihistamines, antihypertensives, antidepressants.
- Any trauma to the eye (including burns).
- Prolonged periods of time in front of a computer screen.
- Infrequent or incomplete blinking.
- Laser surgery, cataract surgery.

- Sensitivity to light
- Occasional blurred vision or eye fatigue
- Aching sensations
- Difficulty wearing contact lenses
- Difficulty with night-time driving
- A feeling of grittiness, or the sensation of something foreign in the eye (like an eyelash or a grain of sand).

### Management

Treatment may aim to increase tear production, maintain tear film volume or prevent excess loss of tears.<sup>4,5</sup> Treatment is dependent on the severity of the condition. Some people may only require a humidifier or occasional eye drops while others may require surgery to help decrease dry eyes.<sup>6</sup>

The first step in the management of mild or occasional dry eyes is to use eye drops, gels or ointments on a regular basis to lubricate the surface of the eye. These are often referred to as 'artificial tears'. There are many brands available without a prescription.<sup>2,4,5</sup> Most of these are available in a preservative-free packaging, which reduces the possibility of irritation from preservatives.<sup>6</sup>

Management may include the following measures to relieve symptoms and prevent complications<sup>5</sup>:

- Purposefully blinking more often, especially when spending long times in front of a computer or other electronic devices.
- Resting the eyes once in a while by taking “eye breaks” during long tasks.
- Eyelid hygiene: Keeping eyelids clean, especially if they get crusty.
- Applying warm compresses.
- Considering wearing wrap-around sunglasses or other protective eyewear to stop the tear film from drying out too quickly.
- Humidifying the area with bowls of water around the room or a good quality humidifier, particularly in the winter to add moisture to dry indoor air.
- Avoiding smoking all together and avoiding second-hand smoke.
- Avoiding direct wind e.g. from hairdryers, car heaters and air-conditioning.
- Being aware of the environment by trying to avoid situations that are most likely to cause dry eye symptoms.
- Positioning the computer screen below eye level, so that the eyes won't be opened as wide. This may help slow the evaporation of tears between eye blinks.
- Omega-3 fatty acids: Including plenty of these in the diet

(found in oily fish, tofu, linseeds, chia seeds, and walnuts). Supplements are also available.

## Conclusion

There are effective treatment options for people suffering from dry eyes. In many cases, routine use of artificial tears and minor behavioural modifications may significantly reduce mild or occasional dry eye symptoms. If the symptoms become persistent or more serious, then the patient should be referred to the doctor.

## References

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### WHAT DRY EYE FEELS LIKE:



Eye dryness or irritation



Sandy or gritty feeling in the eyes



Burning or stinging eyes



Tired eyes

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