

Dry eye

Tears lubricate the eye and stop the surface from drying out. A thin film of tears is swept over the eye surface every time you blink. A watery layer of tears is topped with an even thinner coat of lipids (fatty compounds) that help to preserve the film. To maintain eye comfort and health, the tear film needs to remain intact between blinks.

A person suffering from dry eye syndrome does not have enough of the right kind of tears to keep the eye comfortable. This can happen if they do not produce enough tears to keep the eye surface moist, or if for some reason the tears do not stay on the eyes long enough. Over time, the resulting dryness can damage the surface of the eyeball.

Dry eye can afflict anyone of any age, but is more common as we get older because we produce a smaller volume of tears. Some medications can trigger dry eye, as can some general health conditions. Dry eye is particularly common in postmenopausal women and people with arthritis.

People with dry eyes typically find it difficult to wear contact lenses. Dry eye sufferers may also have more problems in environments such as air-conditioned offices or supermarkets.

There is no cure for dry eye, but its symptoms can be alleviated.

Symptoms of dry eye

The symptoms of dry eye syndrome include:

- Stinging or burning
- Itchiness (particularly in the corners of the eyes)
- Occasional blurred vision
- Redness
- Tired eyes (a feeling like you need to close the eyes)
- Mucus around the eyelids, particularly upon waking
- A feeling of grittiness, or the sensation of something foreign in the eye (like an eyelash or a grain of sand).

Causes of dry eye

Some of the factors that cause or contribute to dry eye include:

- Ageing, since tear production slows with advancing age
- Menopause
- Medical conditions, such as arthritis
- Medications including oral contraceptives, antidepressants, antihistamines, diuretics and beta-blockers
- Climatic conditions, such as dry air and wind
- Irritants, such as cigarette smoke, dust or chemical exposure
- Any trauma to the eye (including burns)
- Infrequent or incomplete blinking
- Prolonged periods of time in front of a computer screen
- Laser surgery, cataract surgery.

Complications of untreated dry eye syndrome

Adequate tear production is vital to the health of the eye. Complications of untreated dry eye can include:

- Ocular discomfort (as described above)
- Transient fluctuations in vision
- Damage to the front surface of the eye (the cornea), which in extreme cases could lead to permanent scarring.

Diagnosis of dry eye

Dry eye is diagnosed using a number of tests, including:

- Examination of the eye surface under a specially designed microscope (a 'slit lamp biomicroscope').
- Putting a drop of sodium fluorescein (a yellow dye) into the eyes. The dye mixes with the tears, allowing evaluation of the tear film.
- Strips of filter paper placed between the lower lid and eye to measure tear production.

Treatment for dry eye

There is no cure for dry eye, but the condition can be successfully managed. Treatment may aim to increase tear production, maintain tear film volume or prevent excess loss of tears.

A range of options may be used:

- Make a conscious effort to blink more often.
- Use eye drops, gels or ointments to lubricate the surface of the eye (these are sometimes called 'artificial tears').
- Boost the humidity of the air at home and at work by placing bowls of water around the room to evaporate.
- Some medications can cause dry eye. Consult your doctor about side effects of medications you take.
- Special plugs can be inserted into the tear ducts to prevent excessive loss of tears.
- In severe cases, surgery may be considered.

Blepharitis

Some people with dry eyes suffer from inflammation of the eyelids or blepharitis. In susceptible people, bacteria that normally live harmlessly on the skin can cause an infection of the eyelid margins. The result is crusting of the lashes/lid margins (particularly upon waking) and an itchy sensation. If left untreated, blepharitis can stimulate inflammation, causing the eyelids to become red, swollen and irritated. The inflammation can often disrupt normal tear production causing dry eye.

Although low-grade blepharitis is often a chronic condition, most cases respond well to appropriate management. Treatments include:

- Cleaning around lid margins with a cotton bud or clean face cloth and very mild soapy water
- Eye drops (artificial tears) for the dry eyes
- Antibiotic ointments and tablets.

Where to get help

- Your doctor
- Your optometrist
- Your ophthalmologist.

Things to remember

- Dry eye syndrome is characterised by insufficient tears.
- Symptoms include irritation (the sensation of having a foreign object in the eye), tired eyes, itching and some vision fluctuation.
- Treatment options include eye drops, gels or ointments, otherwise known as artificial tears.

This page has been produced in consultation with, and approved by:

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