THE COLLEGE OF OPTOMETRISTS

Dry eye

lookafteryoureyes.org

Overview

Dry eye is a common condition that usually affects both eyes. It can make your eye feel scratchy or irritated, and may make your vision blurry between blinks.

Dry eye can be uncomfortable, but will rarely cause you serious eye damage. It may develop because your eyes do not produce enough tears. But in most cases it is because your tears evaporate too quickly or do not spread evenly across the front of your eye.

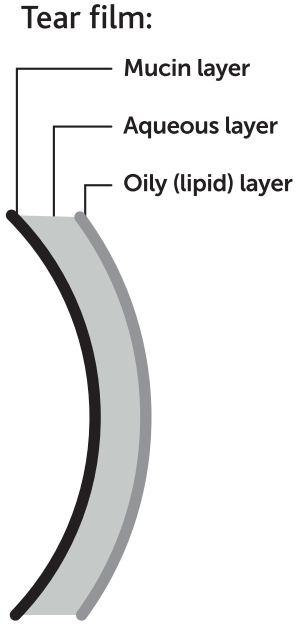
What is dry eye?

Dry eye is a condition that causes abnormal changes in the tear film. These changes may cause your eyes to feel gritty or irritated, and can sometimes make your vision blurry between blinks. Dry eye is a chronic (long-term) condition. This means that once you have had it, it can keep coming back. It often affects both eyes, but one eye may be worse than the other.

Dry eye does not normally cause permanent problems with your sight. But in severe cases it can become very painful and cause damage to the front of your eye.

What causes dry eye?

The tear film is made of three layers. The layer closest to your eye is called the mucin layer, and helps to stick the other tear layers to your eye. The middle layer is the watery layer, which provides moisture and nutrients to the eye. The outer layer is an oily film which stops the tears from evaporating too quickly. This layer is produced by the meibomian glands in your eyelids.



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Dry eye develops when one or more of these layers change in quantity or quality. This causes the tear film to become unstable and more salty. In turn, this causes inflammation of the front surface of your eyes, and the symptoms of dry eye.

Your optometrist will be able to check your eyes using special tests on the tear film and eyelids. This will help them understand the cause of your dry-eye symptoms.

Who is at risk of dry eye?

Dry eye is more common in women, people from an Asian ethnic background, and in people aged over 50. It is often just a symptom of getting older. As you get older, you produce less tears and your eyelids are not as effective at spreading them when you blink. Also, the meibomian glands become less effective as you get older, particularly when they become blocked. This is a condition called posterior blepharitis. We have produced a separate leaflet on blepharitis.

Some drugs or underlying health problems may affect your tear film. In women, changes in hormone levels can increase the risk of dry eye. This means symptoms may be worse during the menopause or pregnancy, or while you are using the contraceptive pill. Your doctor or optometrist will be able to give you advice on this.

Other things that may increase your risk of dry eye include:

- wearing contact lenses
- having a low blink rate
- having an abnormal eyelid position, or
- laser eye surgery.

The normal time for the tear film to last between blinks is over 10 seconds. If the tear film breaks up too soon, the sensitive nerves on the front of the eye may be exposed and your eye will water. This is common in the cold, the wind or if you forget to blink when you are concentrating on the computer, the TV or when driving. This will dilute the oily layer that prevents the tear film from evaporating and your eyes will feel dry again afterwards.

What can I do about dry eye?

Once your optometrist knows what is causing your dry eye, they can give you advice on how to manage it. As dry eye is a chronic condition, you may need ongoing treatment to manage your symptoms.

There are four main ways to help reduce the symptoms of dry eye:

1. Avoid using makeup and keep your eyelids clean

If you put eyeliner on the inside edge of your eyelid, it may block the meibomian glands that produce the oily part of your tear film. This means it is important to keep your eyelids clean, particularly if you also have blepharitis.
Gently clean the edges of your eyelids near your lashes. Wipe from the inside (near your nose) to the outside corner of your eye. Moorfields Eye Hospital advises to clean behind the lashes (the meibomian glands), but not the inside edge, by gently pulling away the eyelids from the eye.

Repeat this twice a day at first and reduce this to once a day as the condition improves. Please see our leaflet on blepharitis for more information.

2. Be aware of your environment

There are some environments that may make your eyes feel more dry. High temperatures and central heating, and draughts and air conditioning, may make your tears evaporate more quickly. You may find it helpful to lower the temperature of your central heating and try to avoid draughts near your face. Some people find that using a humidifier to put more water into the air may help to slow down the evaporation of their tears.
If you are out on a windy day you may find it useful to wear glasses or sunglasses (ideally the wraparound type) to protect your eyes from the wind. Try to avoid smoky atmospheres as these may irritate your eyes.

3. Use eye lubricants

There are several types of eye lubricants available. These work by giving your eyes extra moisture. They are available as drops, gels or ointment, and most are available without a prescription. If you find the drops wash out of your eye too soon, you may find a gel works better. This is because they are thicker and so stay in your eye for longer.
If you have dry eyes at night because your eyelids do not close well enough, you can use an ointment.

Eye lubricants do not contain any drugs and so you can use them as often as you like. However, some contain preservatives which may make your eyes sore. If you are using a lubricant more than six times a day you should use one that is preservative-free.

If your dry eye is due to your tears evaporating too quickly, you may find it helpful to use a spray rather than eye lubricants. These sprays replenish the oily layer of your tears and stop them evaporating as quickly. They are sprayed onto the edges of your eyelids while they are closed. When you open your eyes the liquid spreads across the surface of your eye, creating a new oily film.

4. Have treatment to stop the tears draining away

Your tears drain away into your nose through four small drainage channels in your eyelids (one in each of the upper and lower lids). Small plugs, called punctum plugs, can be placed in the holes in your lower eyelids to stop the tears draining away. This helps the tears to stay in your eye for longer. Your optometrist will be able to give you advice on this. The plugs can be removed if necessary.

Other treatment options

In severe cases your optometrist may recommend prescription medicines or additional treatments depending on your needs.

Using a computer

Some people find that their eyes feel dry while they are looking at a computer screen (or afterwards). There is no evidence that looking at a computer screen does your eyes any harm, but it may make you blink less often. When you use a computer, make sure you blink often and try and look away from the screen regularly for a few seconds. This will help replenish the tear film and give your eyes a rest. You may find it helpful to keep the top of your monitor level with your eyes so that you are looking down at your screen. This reduces the area of the eye exposed to the air which can reduce the amount of tears evaporating.

Watch our video about dry eye at **lookafteryoureyes.com/dry-eye**.

If you have any concerns about the health of your eyes, please visit your local optometrist. Optometrists are eye health specialists.

This information should not replace advice that your optometrist or other relevant health professional gives you.

For more information, please talk to your local optometrist.

If you have any concerns about the health of your eyes, please visit your local optometrist. Optometrists are eye health specialists. An eye examination is a vital health check and should be part of everyone's regular health care. Visit **lookafteryoureyes.org** for clear and helpful information on vision and eye health issues and keeping your eyes healthy.

The College of Optometrists is the professional body for optometry. We provide qualifications, guidance and development opportunities for optometrists so that they can maintain and develop the knowledge and skills they need to deliver the highest standards of care. Membership of the College shows your optometrist's commitment to the very highest clinical, ethical and professional standards. Look for the letters MCOptom or FCOptom to see if your optometrist is a member or fellow of the College. Other letters after your optometrist's name mean they have done further training and gained extra qualifications in diagnosing and managing specific eye conditions. The qualifications are available in different subject areas such as low vision, paediatric eye care, glaucoma and macular degeneration.

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