



Oxford University Hospitals
NHS Foundation Trust

Acanthamoeba Keratitis (AK)

Information for patients



Oxford Eye Hospital

This leaflet is for people with acanthamoeba keratitis (AK), and for family, friends and carers. It explains what AK is, how we test for it, how it is treated, and how to manage day-to-day life with eye drops.

What is Acanthamoeba Keratitis?

AK is an infection of the cornea. The cornea is the clear front surface of the eye. AK is caused by a tiny organism called acanthamoeba.

Acanthamoeba can live in two forms:

- an active form that grows
- a cyst form that is harder to kill

Where is acanthamoeba found?

Acanthamoeba is common in the environment, including:

- tap water
- lakes, rivers and the sea
- swimming pools and hot tubs
- soil and dust

Most of the time it does not cause harm. It can cause infection if it gets into the eye and reaches the cornea.

How did I get AK?

AK is most common in people who wear contact lenses.

Common causes are:

- swimming or showering in contact lenses
- rinsing or storing lenses in water
- touching lenses with wet or unwashed hands
- not cleaning lenses properly
- not cleaning or changing the lens case often enough

People who do not wear contact lenses can still get AK, but it is rare.

Can it spread?

AK does not usually spread from one eye to the other. It is not normally passed from person to person.

Good hygiene helps protect your eye from other infections:

- wash and dry your hands before and after eye drops
- do not let the bottle tip touch your eye, lashes, fingers, or skin.

Symptoms

AK can cause:

- very bad eye pain
- redness and watering
- blurred vision
- sensitivity to light

Some drops can sting, especially at the start.

Tests and diagnosis

Your eye doctor will examine your eye using a microscope (slit lamp).

You may also need tests such as:

- a small sample from the surface of the eye (a corneal scrape)
- a swab from the eye
- sometimes a special scan called confocal microscopy

Samples are sent to the lab to look for acanthamoeba. Results can take a few days.

Why can diagnosis take time?

In the early stages, AK can look like other eye infections. Treatment may start before test results are back. Your diagnosis may be updated when results return, or depending on how your eye responds to treatment.

Treatment

AK is treated mainly with antiseptic eye drops. These drops are made to kill acanthamoeba. They are usually supplied by the hospital pharmacy.

How often will I need drops?

At first, drops are often needed very often, sometimes every hour, including overnight. The plan is then reduced slowly as the infection improves.

This is tiring, but it is very important to follow the plan closely.

Other medicines you may be given

You may also be given:

- pain relief (drops or tablets)
- a drop to make the pupil bigger, to reduce pain from spasm
- antibiotics if there is also a bacterial infection
- steroid drops in some cases, used carefully and monitored closely

Bring all your drops to every clinic visit. Keep using your drops on the day of your appointment unless your doctor tells you to stop.

How long does treatment last?

Many people need treatment for 3 to 6 months. Some people need longer.

Symptoms can be worse at the start, then improve slowly over time.

Could I need surgery?

After the infection has cleared, the cornea may be left with a scar or an uneven shape. This can affect vision. If vision is badly affected, a corneal transplant may be discussed. This is usually only considered once the infection is fully under control.

Steroid drops and possible problems

Steroid drops can reduce inflammation and help comfort. They can also sometimes slow down the clearing of the infection and can raise eye pressure or increase the chance of cataract. If you are given steroid drops, your eye will be checked regularly.

Other possible problems include:

- new blood vessels growing into the cornea
- another infection developing
- cataract or glaucoma in severe cases.

Managing eye drops

- Leave a few minutes between different drops.
- Use alarms or an app to help with timings.
- Keep drops protected when away from home. Ask if your drops need to be kept cool.
- Close your eye gently for about one minute after each drop.
- Some overflow is normal. If you miss the eye completely, repeat the drop.
- If stinging is a problem, ask if any drops can be stored in the fridge.

Prescription costs

Children under 16, adults over 60, and people with valid HC2 certificates may get free prescriptions. Some people may save money with a prescription prepayment certificate.

Daily life while you recover

- You can shower, but try to avoid water getting into the affected eye.
- Avoid eye make-up early in treatment.
- Exercise is usually fine. Avoid contact sports unless advised.
- **Do not** wear contact lenses until your eye team says it is safe.

Some people return to daily disposable lenses once fully healed. Your eye team will advise you.

Driving

You must meet the legal driving vision standard. This means you can read a car number plate at 20 metres, with both eyes open, using glasses or contact lenses if needed. If you are unsure, ask your eye team.

Work, recovery and support

Most people recover over 3 to 6 months if treated early, but some take longer. Time off work depends on your symptoms and your job. Your eye doctor can provide a letter if needed.

If you are feeling worried or low, support is available. An Eye Care Liaison Officer (ECLO) can help with practical advice and emotional support.

OUH ECLO email: eyeclinicliaisonofficer@ouh.nhs.uk

When to get urgent help (OUH)

For minor eye problems, seek advice from your GP, optician or pharmacist.

Call the specialist telephone triage number if you notice:

- increasing redness or swelling of the eyelids or eye
- any loss of vision
- severe or worsening pain.

Telephone: **01865 234 567** select the option for “Eye Emergencies”

Monday to Friday: 8:30am to 4:30pm

Saturday and Sunday, including Bank Holidays: 8:30am to 3:30pm

Out of hours: **NHS 111** or your out-of-hours GP service.

Further information:

Visit the NHS website – www.nhs.uk

Further information

If you would like an interpreter, please speak to the department where you are being seen.

Please also tell them if you would like this information in another format, such as:

- Easy Read
- large print
- braille
- audio
- electronic
- another language.

We have tried to make the information in this leaflet meet your needs. If it does not meet your individual needs or situation, please speak to your healthcare team. They are happy to help.

Information sources: This leaflet is adapted from NHS patient information, including Moorfields Eye Hospital patient information, and updated for Oxford University Hospitals (OUH) services.

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Oxford University Hospitals NHS Foundation Trust

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