

Eye Unit

Recurrent corneal erosion syndrome (RCES)

Recurrent corneal erosion syndrome (RCES) is a condition affecting the outer surface layer of the cornea. The cornea is the clear front window of the eye.

After an injury to the corneal surface, the surface becomes unstable and breaks down to form an erosion, or raw area. This exposes the nerves that lie just beneath the surface. This is painful and can cause your vision to become blurry.

What can cause RCES?

An injury to the eye (e.g. a scratch to the eye)

The original injury could be minor and may seem to heal in a few days, only to break down again at some time in the future, possibly repeatedly. There may be quite a long time between the injury and the recurrent erosion.

The new surface cells, which have grown across the injured area, have not attached strongly enough to the layer beneath. This means that the new surface is very easily dislodged. When dislodged, this leaves a raw area which is extremely sensitive.



Patient Information

Corneal dystrophy (Map Dot Fingerprint Dystrophy)

Sometimes, there may have been no original injury. In these cases, the underlying problem may be a slight irregularity of the growth of the corneal surface cells. This causes an area of poor adhesion called a corneal epithelial dystrophy.

Previous eye surgery (e.g. refractive laser, cataract, corneal transplant)

Trauma to the superficial layers of the cornea and previous eye surgery can be a risk factor for RCES.

What are the symptoms?

Typically, symptoms affect only one eye. Symptoms of RCES include:

- severe pain (especially after waking)
- watering
- blurred vision
- light sensitivity (photophobia)
- dryness and irritation

These symptoms usually settle down as the day goes on, but return first thing the next morning.

Treatment

Medical

Antibiotic eye ointment

At first, antibiotic eye ointment may be supplied. This is partly to prevent infection, but mainly for its lubricant effect.

Artificial tears

Artificial tears are also needed during the day. It is important not to stop the treatment too soon, or another erosion will occur. The healing process then has to begin all over again.

Patient Information

Bandage contact lens

If the condition is seen at the acute stage (sudden onset of pain), the doctor in the eye clinic will:

- remove the loose surface layer of the cornea
- apply a bandage contact lens

A bandage contact lens is a clear, non-refracting (no power), soft lens. It allows the corneal surface to heal properly. The lens will remain on the eye for about three weeks.

The lens may need to be replaced for longer if the erosion has not completely healed.

After this, an eye ointment (sodium chloride 5%) is applied every night for at least six months. This ointment lubricates and draws fluid out of the corneal surface. This allows the outer corneal surface to attach firmly to the layer below.

Oral antibiotics

If lubricants do not work, your doctor may consider oral antibiotics (Doxycycline). Doxycycline also has anti-inflammatory effects. It can promote good healing of the cornea and reduce the frequency of episodes.

Doxycycline can cause photosensitivity – this is where the skin becomes oversensitive to sunlight. Therefore, when taking doxycycline, it is advised to avoid exposure to sunlight when possible.

Doxycycline should not be taken if you are pregnant or breast feeding. Please speak to your doctor about alternatives.

Pain relief

You can take tablets for pain relief (such as paracetamol) if you are unable to tolerate the pain. You must only take the pain relief as written on the manufacturing label.

Patient Information

If the condition is seen in the eye clinic between acute episodes of pain, the sodium chloride eye ointment is started straight away. This has a success rate of 50%.

Surgical

If the above treatment options are not successful, surgical management may be needed. There are three types of surgery available. All have a success rate of over 80%.

Alcohol delamination of the corneal surface

This is a safe and effective treatment. Alcohol allows for the removal of the damaged corneal epithelium (the protective transparent skin of the eye). This lets new healthy tissue re-grow.

Keratotomy

This is the removal of corneal tissue by corneal polishing with a diamond burr. This allows new tissue to regrow over the following five to seven days. This gives the cornea a smoother finish.

Photorefractive keratectomy

This is usually considered when all other treatments have not worked. A laser beam is used to remove the outer surface (epithelium) of the cornea. This allows the cornea to grow back healthier and form stronger adhesions. This reduces further corneal erosions.

It is important to know that you can get a degree of corneal haze after photorefractive keratectomy. This can resolve over time. It may also cause astigmatism or change in glasses prescription.

What is the long term outcome of RCES?

9 in 10 cases resolve eventually, but it may take several months. Some patients continue to experience occasional early-morning foreign-body sensations in the eye for even longer.

Continue using the lubricating ointment last thing at night for six months after all symptoms stop. This will minimise the risk of recurrence.

Patient Information

What do I do in case of an emergency relating to RCES?

Please contact UHCW Eye Emergency Services on 024 7696 4800 (Swiftqueue)

Monday to Friday 8.30am to 4.30pm

Saturday 8.30am to Midday

Outside these hours, attend your nearest A&E Department. You will be assessed and referred on to an ophthalmologist if required.

If you have any further questions, please contact: 024 7696 4800.

The Trust has access to interpreting and translation services. If you need this information in another language or format, please contact 024 7696 4800 and we will do our best to meet your needs.

The Trust operates a smoke-free policy.

Did we get it right?

We would like you to tell us what you think about our services. This helps us make further improvements and recognise members of staff who provide a good service.

Have your say. Scan the QR code or visit:

www.uhcw.nhs.uk/feedback



Document History

Department:	Eye Unit
Contact:	26602
Updated:	March 2024
Review:	March 2027
Version:	5
Reference:	HIC/LFT/963/10

Emergency Eye Appointments: New Booking System

If you have an urgent eye problem, you can now book an on-the-day telephone consultation via the Eye Emergency Referral Service (EERS).



Scan the QR code or visit uhcw.nhs.uk and search Eye Emergency Referral Service. The section How to Access our Services will take you to a link to book a telephone consultation.

You will be spoken to by an expert clinician who will give you specialist advice on the next steps to take.

Please provide a phone number which you can be contacted on for the consultation. Please also be aware that you will be phoned as close to the allotted time as possible, although at busy times unfortunately there may be a delay.

In the event that you feel you cannot wait to speak to someone or do not have online access then you may call 0247 696 4800.

This phone line is open 9am - 1pm; 1.30pm - 5pm (Monday - Friday, excluding bank holidays) and 9am - 12pm (Saturday).

In the event of an eye emergency out of hours, please attend the Minor Injuries Unit/Emergency Department.

Please only attend the Eye Outpatient department if you have had a telephone consultation in advance and have been advised to attend.