

Information for Patients

Recurrent Corneal Erosion

What is recurrent corneal erosion?

Recurrent corneal erosion is a condition that occurs when the cornea's epithelial cells (outermost layer of cells) do not attach to the membrane underneath known as the basement membrane.

This often happens after the cornea (the clear part of the front of your eye) is damaged. For a while, the healed cornea is more delicate than normal. This is because the epithelial cells take at least eight to twelve weeks to regenerate or repair, and stick to the epithelial basement membrane.

This is a very painful condition as the loss of the epithelial cells exposes the sensitive nerve endings in the cornea.

Recurrent corneal erosion is most common in people who have had an injury to the front of the eye. People who suffer eye injuries caused by finger nails, plants or pet's claws have been found to be more likely to suffer. Other types of trauma may include chemical burns, foreign bodies and trauma caused by contact lens wear.

Typically, recurrent erosion develops three to ten days after the injury but in some cases it may not develop until several months later. It may also be caused by corneal diseases such as corneal dystrophy or other corneal diseases including dry eyes. Diabetic patients may be more prone to this condition.

What are the symptoms?

You may experience recurrent attacks of pain, often towards the end of sleep or on waking. You may have difficulty opening your eyelids, your eye may water and feel sensitive to the light, and you may experience a pricking sensation. These symptoms may get better during the day and start again the next morning.

What is the treatment?

The treatment may vary depending on the severity. A local antibiotic ointment or drop is often prescribed to prevent infection and promote healing. Occasionally a dilating drop may be given to relax the muscles of the iris (coloured part of the eye) which helps with the pain.

In more severe cases, where the epithelium has become loose, removal of this tissue is required in order to promote healing. This is called debridement. It is carried out using local anaesthetic eye drops. You may be required to wear an eye pad following debridement if the area involved is large. You will normally be reviewed the following day.

Can I prevent it from happening again?

There are a number of things that you can do to help prevent a recurrence. In the first instance, prevention revolves around long-term lubrication of the eye. Regular use of lubricating eye ointment before going to bed is very important. This should be used every night for six months. It is very important to continue this lubrication even if you do not experience any symptoms.

Other factors that can help prevent a recurrence include:

- Avoiding dry or smoky atmospheres.
- Wearing protective goggles when gardening or carrying out 'Do It Yourself' jobs to prevent possible injury.
- Drinking plenty of water or fluids to maintain good hydration.
- Learning to wake with your eyes closed and put artificial tears in as soon as you open your eyes.
- Avoiding rubbing your eyes.
- Using artificial tears regularly during the day and increase their use if you are flying, on holiday or in a hot dry environment.
- Taking regular breaks from computer screen use.

Are there any complications?

Complications are rare but infection may arise due to the damaged epithelium and vision may be blurred. Most patients respond well to the eye ointment or drops providing they follow the instructions given to them. A few patients will have their vision permanently affected.

What happens if it re-occurs?

A recurrent episode will often settle within a few hours or days, however, as the name suggests it may recur and the treatment described earlier is often repeated. If there is no improvement in the long term, and you have frequent recurrences while using the maximum lubrication, you may be referred to an eye specialist so alternative treatments may be considered. These include:

- Fitting a bandage contact lens (soft lens with no prescription) which allows the cornea to heal. This is sometimes required for many months.
- Fitting a soft plastic plug (punctal plug) into the punctum (small drainage hole in the corner of your eye) to prevent your natural tears from draining and to keep the front of your eye moist.
- Having an anterior stromal puncture. This is a minor procedure carried out under local anaesthetic. Lots of tiny punctures are made away from the centre of the cornea which promotes more permanent epithelial adherence.
- Having laser phototherapeutic keratectomy (PTK) which is the removal of corneal tissue and is reserved for severe cases (usually in patients with associated corneal dystrophies). The entire epithelium is removed and allowed to grow from new over the following 5-7 days.

All of these treatments aim to re-attach the surface epithelium to the underlying basement membrane. The method chosen depends upon the location and size of the erosion.

Because each patient is different, the information contained in this leaflet is a general guide only. If you require any further information or wish to discuss any of the potential complications outlined in this leaflet, please speak to a member of the nursing or medical staff treating you.

If you require any further information please contact the Emergency Eye Department on (0161) 276 5597 every day from 8.00am – 9.00pm including public holidays.