

Dacryocystorhinostomy (DCR)

This leaflet explains about dacryocystorhinostomy (DCR) surgery including the benefits, risks and any alternatives, together with what you can expect when you come to hospital.

What is a Dacryocystorhinostomy (DCR)?

This is an operation to form a new tear drain pathway. If the normal drainage passage gets blocked or is narrow, you might have symptoms of a watery eye or have repeated eye infections. In this surgery a new passageway is created between the tear sac and the nose, bypassing the blockage and allowing tears to drain normally again.

How do tears normally drain away?

Tears are constantly produced onto the surface of the eye by the lacrimal (tear) gland. When you blink they are drawn into two small holes (puncta) in the inner corner of your eyelids. These lead into small tubes known as the canaliculi, which in turn drain into the lacrimal sac. This sac lies between the corner of your eye and your nose and has a duct (tube) at the bottom, which drains into your nose (the nasolacrimal duct).

What causes my condition?

The nasolacrimal duct narrows with age, resulting in the system overflowing and tears rolling down the cheeks. This is particularly bad in situations when more tears are produced, for example when outdoors or in windy weather. Other causes of tear duct blockage include facial injuries or certain nose or sinus diseases. Some patients have a blocked tear duct from birth.

What happens when I come to the outpatient clinic?

You will first be seen by a nurse who will do your vision test. Your eye will then be examined by Mr Edmunds, including tests such as flushing salty water through your tear ducts using a fine tube (cannula). He may also examine the inside of your nose using a small thin camera (endoscope).

After you have discussed your treatment options with Mr Edmunds you may decide to proceed with surgery. A date for the surgery will then be arranged and you will see a nurse for preoperative assessment. You might have some routine tests, including blood tests and an electrocardiogram (ECG).

What does the surgery involve?

DCR involves opening up your existing tear sac and connecting it directly into the nose to form a new tear drainage pathway. This requires removal of the small amount of bone that lies between your nose and your tear sac.

There are two types of DCR procedure that can be used: external and endonasal. The most suitable option for you will be discussed with you in the eye clinic when surgery is being offered and planned.

External DCR – This is the most common type of DCR. Surgery takes place through a 10-15mm cut (incision) on the side of your nose (where a pair of glasses would rest). This heals very quickly and is rarely visible when healing is complete. You may have stitches, which may be removed in the weeks following the procedure. As part of the surgery a small, flexible stent or tube is placed to ensure that the newly made passage remains open during the healing stage. This tube is typically removed after 4-8 weeks.

Endonasal DCR - in this approach there is no cut through the skin and no external scar afterwards. Access to the tear sac is through your nose, usually using a small thin camera (endoscope). As with external DCR surgery a small, flexible stent will be placed internally, positioned in the newly created passage and this will usually be removed after 4-8 weeks.

Whichever approach, the operation usually takes about 1 hour. Success rates of surgery in improving symptoms are around 90%. DCR is normally performed with the patient asleep (general anaesthetic). In very rare circumstances when general anaesthetic is not possible it may be performed under local anaesthetic, while awake. This will be discussed with you prior to the surgery.

Removal of the stent

The stent might be visible just inside your nose, but do not worry if it is not visible after surgery. It is tied inside your nose and a loop can occasionally stick out from the inner corner of your eyelids. If this happens it can gently be pushed back into place.

What are the benefits of DCR?

Mr Edmunds will recommend this treatment if he believes that there is the prospect of reducing your symptoms of watering eye and reduce the risk of recurrent infections.

What are the risks?

This is a fairly safe operation but as with any procedure, there are some risks associated with it:

- Bruising and swelling can be expected and may remain for a few weeks after surgery.

- Infection of the wound is possible.
- A nose-bleed can occur up to 10 days after surgery. This happens to about 1-2 in 100 patients. In most cases, the bleeding will stop by itself, but if the bleeding is severe or continues for more than half an hour, seek medical advice immediately at your nearest Emergency Department.
- In external DCR, the incision on the side of the nose is usually small but might be visible.
- There is a risk of the procedure not improving your symptoms, or working initially before the symptoms return at a later date. DCR surgery may be repeated but occasionally further procedures, such as the placement of a glass tube (Jones tube), may help.

Are there any alternatives?

Alternatively you can choose to leave things as they are. You can discuss this in more detail with Mr Edmunds.

How can I prepare for the treatment?

If you are taking any medicines that thin your blood, such as antiplatelet medicines (for example Aspirin or Clopidogrel) or anticoagulant medicines (for example Warfarin, Apixaban or Rivaroxaban), please tell Mr Edmunds as you may need to stop them temporarily before your surgery. Also tell your Mr Edmunds if you have diabetes as you may need to alter the dose of your diabetes medicines, as you will need to fast before the procedure. Further information on stopping any medicines will be given to you when you come for pre-assessment. Please ask us if you have any questions.

Please let us know if you are taking any regular medicines (including anything you buy yourself over the counter or any herbal or homeopathic medicines) and if you have any allergies to any medicines.

As your surgery involves general anaesthetic or sedation then you should follow the fasting instruction which will be explained further in the pre-assessment clinic.

Fasting instructions

Please do not eat or drink anything (except non-fizzy water) for six hours before your surgery. This means that you cannot suck on sweets or chew gum. You are allowed to drink water up to two hours before your surgery. If you continue to eat or drink after this, your surgery will be cancelled.

Please wear comfortable and loose-fitting clothing on the day of surgery. You may need to organise a responsible adult who can assist you on your way home. They may also need to stay with you for at least one day after the treatment.

After your surgery

At the end of your surgery, it is usual to place a silicone stent in the new tear drainage system. The ends of the stent are inside your nose. This stays in place for one to two months. During that time you may be aware of the stent in your nose, but you should try not to disturb it. Please try to avoid blowing your nose vigorously whilst the stent is in place, as you may dislodge it.

A firm dressing may be placed over your eye, which you can usually remove the following morning. You may be given eye drops or ointment to use on the operated side. An outpatient appointment will be arranged for you.

What do I need to do after I go home?

We recommend that you have a quiet evening at home and avoid strenuous exercise for a week. You are advised not to drive, operate machinery, drink alcohol or take sedative drugs for 24 hours. Keep your skin wound dry and uncovered. We may ask you to perform nasal douching (wash out) after one week for several weeks using saline nasal spray.

You might experience some blood stained ooze from your nose. This usually stops after a few hours. If there is bleeding, apply an ice pack on the bridge of your nose (on the opposite side to the dressing). Wipe away any bleeding with a paper tissue/kitchen towel. If the bleeding is severe or continues for more than half an hour, seek medical advice immediately at your local Emergency department.

If you experience pain, which is unusual, take Paracetamol or Codeine (but not Aspirin or Ibuprofen for up to two weeks as these could cause some bleeding). It is usual to have a watery eye for some weeks after surgery until the swelling and inflammation settles, and the stent is removed.

Your vision may be blurred for a few days and you may not be able to wear contact lenses. If the eye becomes very painful, red or you notice excessive discharge or bleeding, you should contact the eye department immediately.

Is there anything else I should not do after my surgery?

Hot food and drinks should be avoided for up to two days after surgery as they can trigger bleeding. You must not blow your nose for two weeks but you can wipe your nose or sniff to clear it. If you sneeze, try to keep your mouth open.

Will I have a follow-up appointment?

A follow-up appointment will take place in the weeks after your surgery.

Contact Details:

Sophie Lines (private secretary): 01527 507966