Royal Devon
University Healthcare
NHS Foundation Trust

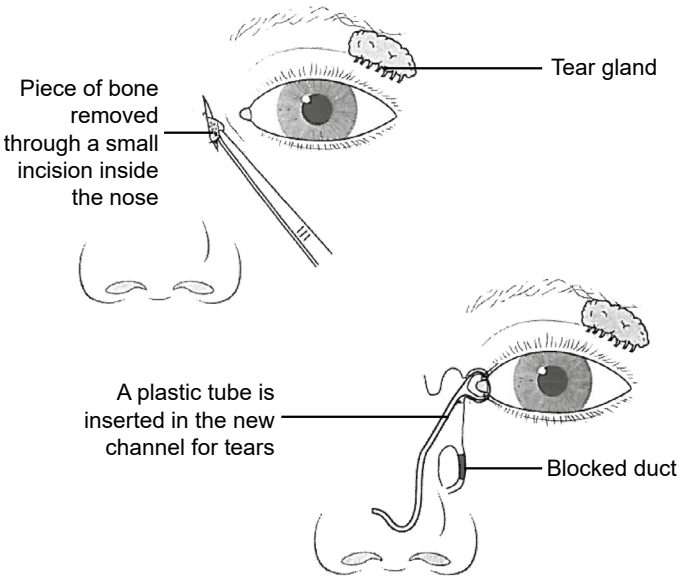
Endoscopic Dacryocystorhinostomy Surgery (DCR)

Introduction

We expect you to make a rapid recovery after your operation and to experience no serious problems. However, it is important that you should know about minor problems, which are common after this operation, and also about more serious problems that can occasionally occur. The section "What problems can occur after the operation?" describes these, and we would particularly ask you to read this. The headings from this section will also be included in the consent form you will be asked to sign before your operation.

What is dacryocystorhinostomy surgery (DCR)?

Dacryocystorhinostomy is a common operation for a blocked tear duct which is often the cause of watery eyes or Epiphora (spontaneous flow of tears over the lid margin). Normally our tears drain away from the eyes through tiny holes (puncta) on the upper and lower eyelids, near to your nose, entering little canals (canaliculi) which join and enter the tear sac (lacrimal sac).



They then flow down a duct (Nasolacrimal Duct) into your nose. Watery eyes result from excessive tear production or defective tear drainage. Most often this is due to a blocked tear duct but it can also be due to narrowing of the puncta. More rarely trauma or tumours can cause watering.

This operation creates a new tear duct to bypass the blocked tear duct which will enter the nose at a higher level.

Why do I need DCR?

The usual indication for DCR is complete or partial obstruction of the tear drainage system (Nasolacrimal Duct). The subsequent watering can cause skin irritation, visual problems, social embarrassment, chronic discharge and acute or chronic dacryocystitis (infection of the Nasolacrimal sac). A DCR operation will create a new channel for the tears to drain into and subsequently stop the watery eyes and eliminate the symptoms.

Is there an alternative treatment?

DCR can also be performed as an open operation with a cut in the skin on the side of your nose.

How is diagnosis made?

The tear drainage system can become blocked at any level. The choice of operation is dependent on the level of the obstruction – e.g. DCR without Tubes, DCR and Tubes and Canalicula DCR.

Diagnostic probing and irrigation of the puncta, canalicula and lacrimal sac is useful in confirming the level of obstruction and is usually done in the Ophthalmology Outpatient Clinic before you are referred to the ENT department.

A Shirmer Test can be useful to assess for dry eye and involves using a strip of filter paper on the lower lid recess.

What does the procedure involve?

The procedure is performed as an open operation, involving a cut in the skin on the side of your nose. A loop of fine soft plastic tube (nasolacrimal tubing) is threaded from the opening of the tear duct on the inner corner of your upper and lower eyelid through the new channel and into your nose. This tube stays in place for 2 months to keep the new passage open whilst healing.

What about the anaesthetic?

A general anaesthetic is needed.

What happens before the operation?

You will be asked to attend a routine pre-admission assessment and given information about DCR surgery and the admission procedure. If you are on anticoagulant therapy such as warfarin, you will be referred to your GP to regulate the INR to be 2.5 or below prior to surgery. Anticoagulants such as aspirin and clopidogrel are generally stopped 2 weeks prior to surgery. Good control of your blood pressure is an important factor for the management of bleeding during surgery. There are no other specific preparations for DCR surgery. You will be admitted to the Day Case Unit on the day of surgery. DCR operations are carried out as day cases.

What happens after the operation?

In the immediate post-operative period, you will be on bed rest for 2-3 hours. Eating and drinking (cool beverages only) and gently mobilising for toilet purposes is allowed. You will be monitored for any nasal bleeding. Sometimes gentle pressure and ice packs are applied over the bridge of the nose to help stop initial post-op oozing from the nostril. Often there is no pain; however (mild) analgesia (other than aspirin) can be given as required, e.g. paracetamol.

If you make a satisfactory recovery and there is no excessive bleeding you can go home 3-4 hours from the time of returning to the ward. Occasionally a one-night stay is necessary, if the nasal bleeding is prolonged and causing concern, but this is rare.

Discharge from hospital

On leaving the hospital you will be advised:

- To have a responsible adult with you overnight.
- To have a quiet evening at home, and avoid any strenuous exercise for 1 week.
- Not to drive, operate machinery, consume alcohol or take sedative drugs for 24 hours.
- Not to swim for at least 2 weeks.
- If you have had nasolacrimal tubing inserted, this will be seen in the corner of your eye and you may feel it in your nose. Please do not pull the nasolacrimal tubing as this may compromise the surgery.
- Sometimes there is some ooze or bleeding from the nose. If this occurs, apply a cool-pack or pressure to the bridge of the nose (on the opposite side to the dressing) and wipe away any bleeding with a clean paper tissue/ kitchen towel.
- If bleeding is excessive or prolonged, please seek medical advice at your nearest Emergency Department or at the Eye Emergency Department which is within the main Emergency Department of the Royal Devon and Exeter Hospital (Wonford).
- Please do not blow your nose for the first 2–3 days, and avoid aspirin–containing drugs for 1 week.
- If experiencing pain or discomfort, which is unusual, take paracetamol or codeine (not aspirin).
- An antibiotic eye drop will be given to be used as instructed – to prevent infection during healing.

What problems can occur after the operation?

- Routine endoscopic DCR surgery has a success rate of 80 – 85 %. The main risk is that the surgery is unsuccessful and the watering persists.
- Often the watering does not improve until the nasolacrimal tubing is removed.
- It may take up to 3 months for the watering to settle.

Wound problems

Bleeding from your nose, sometimes excessively for several days after the operation. The nose may be packed and the patient given antibiotic.

Infection

This is rare. Very occasionally there may be post-operative infection or dislocation of the nasolacrimal tubing. It may mean the operation has been compromised. Antibiotics are required. Recurrence of the watering may occur. The operation may have to be repeated.

The risks of a general anaesthetic (see also separate anaesthetic leaflet)

General anaesthetics have some risks, which may be increased if you have chronic medical conditions, but in general they are as follows:

- **Common temporary side effects** (risk of 1 in 10 to 1 in 100) include bruising or pain in the area of injections, blurred vision and sickness, these can usually be treated and pass off quickly.
- **Infrequent complications** (risk of 1 in 100 to 1 in 10,000) include temporary breathing difficulties, muscle pains, headaches, damage to teeth, lip or tongue, sore throat and temporary problems with speaking.
- **Extremely rare and serious complications** (risk of less than 1 in 10,000). These include severe allergic reactions and death, brain damage, kidney and liver failure, lung damage, permanent nerve or blood vessel damage, eye injury, and damage to the voice box. These are very rare and may depend on whether you have other serious medical conditions.

What should you do if you develop problems?

Telephone Parkerswell Ward, Monday to Friday, between 7:30 a.m to 6:00 p.m. on **01392 402892**. At all other times, please telephone Otter Ward on **01392 402087.**

Do you need to return to hospital for a check?

You will be reviewed in the Outpatient Department 4 weeks after discharge, for removal of the nasolacrimal tubing and/or review of the operation.

Who should you contact in an emergency?

You should seek medical advice at the nearest Emergency Department or at the Eye Emergency Department which is within the main Emergency Department of the Royal Devon and Exeter Hospital (Wonford).