

Dacryocystorhinostomy (DCR)

Other formats

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What is a DCR?

DCR (dacryocystorhinostomy) surgery is an operation to form a new tear drain between your eye and nose when there has been a blockage. If the normal drainage passage gets blocked or narrowed, you might get a watery eye or repeated eye infections.

How do tears normally drain away?

Tears are produced continuously and when you blink they are drawn into two small holes in the inner corner of your eyelids. Each hole is known as a punctum. There is one in each of the upper and lower eyelids. They lead into small tubes known as the canaliculi, which in turn drain into the lacrimal sac. This lies between the corner of your eye and your nose. It has a duct at the bottom (the nasolacrimal duct), which drains into your nose.

Why do the passages become blocked?

The normal system does not have much spare capacity (this is why we 'cry') and the narrow drainage channel becomes even narrower with age, especially if you have had nose or sinus disease.

What happens when I come to hospital?

You will be seen by a doctor, who will take your history, check your vision, measure the pressure in your eye and then carry out tests that might include syringing water through your tear ducts to see whether there is a blockage, and a telescopic examination of the inside of your nose.

If you decide to proceed with the operation, we will place you on the waiting list for the operation and to visit a nurse in the pre-operative assessment clinic. You might have some routine tests there to check your health, including blood tests and an electrocardiogram (ECG).

You will be advised to stop taking any medicines containing aspirin or ibuprofen two weeks before the operation. If you have been prescribed these or any anti-coagulants (drugs to thin the blood such as warfarin), please discuss this with your GP or at your anti-coagulation clinic.

What does surgery involve?

During a DCR, your tear drainage passages are opened so the tears can drain into the nose. There are two approaches to DCR surgery – external DCR and endoscopic endonasal DCR (often referred to as EndoDCR).

External DCR

The operation takes place through a 10 to 15mm incision in the side of your nose, where a pair of glasses would rest. This heals up very quickly and, in most people, is rarely visible when healing is complete.

You will have sutures (stitches), which are usually removed seven to 10 days later. As part of the procedure, a small silicone tube is positioned internally to ensure the newly-made passage remains open during the healing phase. This tube is removed after four to six weeks.

Endoscopic DCR

Endoscopic DCR is a minimally invasive procedure to unblock tear ducts. The operation is very similar to external DCR, except there is no cut through the skin and no scar afterwards. Access is through your nose using an endoscope (a small thin camera). As with all DCR surgery, a silicone tube will be placed internally in the newly-created passage and will be removed after four to six weeks. This procedure is not performed at North Devon District Hospital.

Removal of tubes

The tube will be removed during your next outpatient appointment. The tube is tied inside your nose and a loop can occasionally protrude from the inner corner of your eyelids. If this happens, it can gently be pushed back into place. If you have any concerns, please call 01271 322577 and ask to be put through to the A&E department.

What type of anaesthetic is necessary?

The operation takes about an hour and is usually performed under a general anaesthetic where you are asleep.

If you are an older patient and having a general anaesthetic in the afternoon, you might be asked to stay overnight. Most younger patients can go home later the same day. It is advisable to be driven home by a friend or relative. You must not drive yourself and we would not suggest travelling home on public transport.

What happens after surgery?

After your operation, 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.

If your eye pad has not been removed in the hospital, gently remove it in the morning at home and wash normally, taking care to dab the operation site (do not rub). If you have had external DCR, it is advisable to keep your skin wound dry and uncovered.

After the operation, you might experience some blood trickling from your nose. This usually stops after a few hours. If there is bleeding, apply an ice pack to 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 nearest A&E department.

If you experience pain, which is unusual, take paracetamol or codeine. Do not take aspirin or ibuprofen for two weeks as this could cause some bleeding. In order to avoid drugs containing aspirin, please read the contents of the packaging of whatever painkiller you wish to use. It is usual to have a watery eye for some weeks after surgery until the swelling and inflammation settles and the rods are removed.

Is there anything else I should not do after the operation?

Hot food and drinks should be avoided for up to 24 hours after the operation as they can trigger post-operative bleeding. You may wipe your nose or sniff to clear it, but you must not blow your nose for seven to 10 days. If you sneeze, try to keep your mouth open.

What are the main complications following a DCR?

Bleeding: A nosebleed can occur up to 10 days after surgery. This happens to about one in 50 patients. In most cases, the bleeding will stop by itself, but if it continues or is very heavy you should attend the A&E department at your nearest hospital.

Infection: This is rare, but a possible complication. When you leave the hospital, you will be given drops to use during the day to prevent infection.

Scar formation: In case of external DCR, the incision on the side of the nose is usually small but might occasionally need to be massaged.

Blockage: On rare occasions a scar can form inside, leading to blockage of the drain again and another operation being required. Sometimes it might require surgical insertion of a small pyrex tube known as a Jones tube, which stays permanently in the tear duct.

What is the follow-up treatment?

For an external DCR you will have a dressing on your eye/side of your nose and a nasal pack up the nostril. Both of these will be removed the following day.

You will be given a clinic appointment for one or two weeks after surgery and the stitch in your skin will be removed by a nurse.

You will receive another appointment to be seen in around six weeks for removal of the silicone tubes from inside your nose. The doctor will then discharge you from hospital.

You will only need to contact us if you experience any problems.

For more information or advice after your operation, please call 01271 322467 and leave a message before 3pm to receive a reply the same day.

What is the success rate of the operation?

The success rate is 85 to 90%. Success means the watering stops completely or only happens in very windy weather. Surgery will help you to enjoy your indoor and outdoor pursuits again and stops you having a watery eye which needs wiping all the time.

For cure of infection (acute dacryocystitis) the success rate is over 95%. You will no longer have painful swelling at the corner of your eye.

Further information

If you have any questions once you get home, please call the day surgery unit on 01271 322455 or the eye clinic on 01271 322647 between 9am and 5pm, Monday to Friday.

Outside of these hours, please call the main switchboard on 01271 322577 and ask to speak to the ophthalmic doctor on call.

PALS

The Patient Advice and Liaison Service (PALS) ensures that the NHS listens to patients, relatives, carers and friends, answers questions and resolves concerns as quickly as possible. If you have a query or concern call 01271 314090 or email rduh.pals-northern@nhs.net. You can also visit the PALS and Information Centre in person at North Devon District Hospital, Barnstaple.

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