

Dacryocystorhinostomy (DCR)

This leaflet explains about dacryocystorhinostomy (DCR) including the benefits, risks and any alternatives, together with what you can expect when you come to hospital. If you have any further questions, please speak to a doctor or nurse caring for you.

What is a Dacryocystorhinostomy (DCR)?

This is a surgical procedure to improve tear drainage by forming a new tear duct into the nose bypassing any existing blockage. It is usually performed under a general anaesthetic as a day case procedure.

What causes my condition?

Tears are constantly being produced by the eye; these usually drain out through the normal tear drainage system arising from the inner corner of the eyelid, down the tear duct into the nose. The tear 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 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. The entrance to the tear duct can be blocked by other causes which are not discussed here and not suitable for DCR treatment.

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 an eye surgeon, involving tests such as flushing salty water through your tear ducts using a fine tube (cannula) and examining the inside of your nose using a small thin camera (endoscope).

After you have discussed your treatment options with the surgeon you may decide to proceed with the surgery. A date for the surgery will then be arranged and you will see a nurse for pre-operative 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 tear sac and your nose. The tear sac can be reached from inside the nose (Endonasal DCR) or from the skin between your eye and nose. There are two types of DCR surgery: external and endoscopic.

External DCR

The surgery takes place through a 10-15mm cut (incision) in the side of your nose. This heals up very quickly and is rarely visible when healing is complete. You will have stitches, which are usually removed 7-14 days later. As part of the surgery, a small polythene tube (they do not assist with drainage) is positioned internally to ensure that the newly made passage remains open during the healing stage. This tube is removed after 6-12 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 a small thin camera (endoscope). As with all DCR surgery, a small tube will be placed internally, positioned in the newly created passage and this will be removed after four to six weeks.

Removal of tube

The tube might be visible just inside your nose, but do not worry if it is not visible after surgery; it will be removed during your next outpatient appointment. It is tied inside your nose and a loop can occasionally stick out from the inner corner of your eyelids. If this happens, the soft polythene tube can gently be pushed back into place.

What are the benefits?

Your doctor has recommended this treatment to reduce your symptoms of watering eye and reduce the risk of infection and the doctor believes you will benefit from the treatment. This form of surgery is generally successful with eight in ten people having significant improvement with a watering eye.

What are the risks?

This is a fairly safe 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 in the wound is possible. You can reduce this risk by following the instructions in these leaflets.
- A nose-bleed can occur up to 10 days after surgery. This happens to about one to two 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 St Thomas' Hospital or your nearest Accident and Emergency department. Very rarely, a nosebleed is severe and may need an emergency procedure.
- In external DCR, the incision on the side of the nose is usually small but might be visible.
- Occasionally a scar can form inside, leading to a blockage of the drain again which will require further surgery. It may require a surgical insertion of a small pyrex tube known as a Jones tube, which stays permanently in the tear duct.

Are there any alternatives?

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

How can I prepare for the treatment?

You will have a pre-operative assessment with a nurse where more information will be provided. You may need to have more investigations including an ECG or blood tests.

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 or rivaroxaban), please tell your doctor or the nurse as you may need to stop them temporarily before your surgery. Also tell your doctor or nurse 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 these fasting instruction instructions 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 appointment. This means that you cannot suck on sweets or chew gum. You are allowed to drink water up to two hours before your appointment. **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.

Consent - asking for your consent

We want to involve you in decisions about your care and treatment. If you decide to go ahead, you will be asked to sign a consent form. This states that you agree to have the treatment and you understand what it involves.

Remember that you may need to bring your reading glasses into the hospital with you to help you read the form. If your sight is poor you can ask the doctor or a relative to read it to you and check it before you sign.

If you would like more information about our consent process, please speak to a member of staff caring for you.

After your surgery

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

A firm dressing will be placed over your eye, which you can remove the following morning. You will be given antibiotics with eye drops and eye ointment to use in your operated eye. It is important to wash your hands before and after using the above medication, to prevent infection. 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 usually ask you to perform nasal douching (wash out) after one week for several weeks using Sterimar saline nasal spray which is available to buy from your local pharmacy.

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 St Thomas' Hospital or your nearest Accident and Emergency department.

If you experience pain, which is unusual, take paracetamol or codeine but not 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 tubes are removed.

The stitches in the skin may be left in place or removed after one to two weeks, and you will be given an appointment for the outpatient clinic.

Your vision may be blurred for few days and you may not be able to wear contact lenses. If it becomes very painful, red or you notice excessive discharge or bleeding, you should return to the Eye Department at St Thomas' Hospital or go to your nearest Accident and Emergency department immediately.

You may want to take few days leave from work depending on your circumstances. You should not resume any strenuous activity including swimming for two weeks. It is best that someone stays with you to help you for at least a day after the treatment.

You are advised not to drive, operate machinery, drink alcohol or take sedative drugs for 24 hours.

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 for a few days after your surgery will be booked for you before you leave the hospital. It will take place in the Eye Department at St Thomas' Hospital.

Contact us

If you have any questions or concerns about the treatment please contact the Ophthalmology secretary on **020 7188 0161** (Monday to Friday, 9am to 4pm).

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline.

t: 020 7188 8748 9am to 5pm, Monday to Friday

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk

t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch:

t: 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day.

t: 111

NHS Choices

Provides online information and guidance on all aspects of health and healthcare, to help you make choices about your health.

w: www.nhs.uk

Get involved and have your say: become a member of the Trust

Members of Guy's and St Thomas' NHS Foundation Trust contribute to the organisation on a voluntary basis. We count on them for feedback, local knowledge and support. Membership is free and it is up to you how much you get involved. To find out more, and to become a member:

t: 0800 731 0319 **e:** members@gstt.nhs.uk **w:** www.guysandstthomas.nhs.uk/membership

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