

## **DCR - DACRYOCYSTORHINOSTOMY**

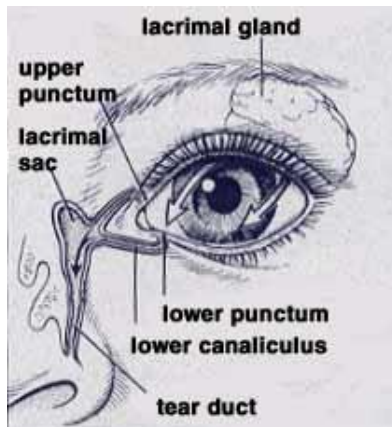
The normal passage of tears is from the gland on the outer corner of your eye to the inner corner, through to your nose and into your throat. If there is a blockage in the passage from the eye to the nose a watery or infected eye may result.

THE PUNCTUM is the tiny opening at the inner corner of your upper and lower lids.

THE CANALICULI are fine horizontal passages that connect both the puncta with the tear sac.

THE TEAR SAC rests at the side of your nose. The sac collects tears and mucous before they pass into the nose.

The sac drains into the nose via the NASOLACRIMAL DUCT. This duct ends deep inside the nose. Normal tearing drains into the nose and down the throat. That is why crying may cause your nose to run.



### **INDICATIONS FOR SURGERY**

Not all blocked tear ducts need surgery. People with dry eyes may be unaware that they have a blocked tear duct. Surgery is indicated when tearing is bothersome or when infection occurs. Patients who require intra-ocular surgery such as cataract surgery are advised to have tear ducts unblocked to prevent infection of the eye after intra-ocular surgery.

## **THE SURGERY**

DCR (dacryocystorhinostomy) bypasses the blockages in the nasolacrimal duct. The tear sac is directly connected to the nasal cavity. The surgery takes about 25 minutes per side. A general anaesthetic or a local anaesthetic with intravenous (IV) sedation can be administered. Local anesthetic with IV sedation has significant advantages including less bleeding and quicker recovery times. With the IV sedation you will be aware of things happening but will be comfortable. You may not remember the surgery very well afterwards. With a general anesthetic you will be unconscious throughout the procedure. General anesthesia does carry some higher risks and slower recovery time. Most patients will go home the same day as surgery. The success rate with surgery is about 95% as with any kind of surgery, there are RISKS associated with this procedure.

1. Failure of the surgery due to scar tissue forming in the nose. A temporary tube will be placed in the nose to prevent scarring in any patients with risk factors for failure. In the event of surgical failure it is possible to re-operate through the nose and remove scar tissue. When the scar tissue involves the canaliculi or is recurrent a permanent by-pass tube (Jones Tube) may be use to drain the tears.
2. There is a risk of postoperative hemorrhage, excessive bruising, and excessive swelling. There is a small risk of blindness or death with tear duct surgery. It is very important to avoid blood thinners and to have normal blood pressure to prevent bleeding. Foods to avoid prior to your surgery include Vitamin E, ginger, garlic, and ginkgo biloba.
3. All skin incisions results in scarring that may take 6-12 months to fade (scarring will never disappear totally).
4. Following successful surgery you may notice air vent from the punctum with forceful nose blowing. This is considered normal.

## **ENDOSCOPIC SURGERY**

DCR surgery may be performed endoscopically through the nose. The advantage of this approach is no skin incision. The disadvantage is a general anaesthetic is usually needed and the temporary tubes are left in longer. (Approximately three months vs. three weeks)

There is also a slightly lower success rate – 85% with this approach.

**Smoking causes poor healing and should be avoided.**

## TUBES

**Temporary Tubing** may be used to keep the new drainage passage open after surgery. The decision to use temporary tubing depends on risk factors for scar formation.

Temporary tubes help hold the new passage open. This temporary tubing is removed three weeks to six months after the surgery. This is easily done like removing a stitch. Tears may not drain properly until this temporary tubing has been removed.

Permanent tubes or “Jones Tubes” are tiny glass tubes that can be left in place indefinitely. Jones tubes are used when there is canalicular scarring or repeated failure of the original surgery.

Jones tubes can be removed or exchanged if needed. Keep the Jones Tube clear by rinsing with saline every morning. To do this, put a drop of artificial tears into your eye, hold your nose closed and gently sniff in.

## PRE-OPERATIVE INSTRUCTIONS

- You should not drive to or from your surgery. Bring a friend or relative with you.
- Blood thinners (**ASA, Warfarin, Pradaxa, Xarelto**) are usually discontinued 1 week prior to surgery – please contact your prescribing doctor to make a specialized plan for you. Other blood thinners such as **Vitamin E, Ginkgo Biloba, ginger, garlic, Advil, Motrin, Naproxen,** and **green tea** need to be discontinued a week prior to surgery.
- DO continue taking all of your regular medications, especially blood pressure medications.
- ***Please do not wear any eye make-up the day of your surgery.***
- Make sure that your blood work has been completed at least 3 weeks before your surgery or as otherwise indicated by the office. Patients who have not completed their blood work could have their surgery cancelled. The blood work requisition is attached to the back of the paperwork. You do not need to fast for these blood tests.

## POST-OPERATIVE INSTRUCTIONS

- Do NOT resume blood thinners for 1-week post op.
- Use Beconase nasal spray three times daily for two weeks to the surgical side.
- Use FML eye drops three times daily for two weeks to the surgical side.
- Apply ice (or frozen peas) to your nose and neck. This helps slow the flow of blood to help reduce bruising and swelling.

- Gentle pressure, with a cold compress, will also help to reduce the amount of bruising and swelling. You can switch to warm compresses or no compresses, after a few days.
- Elevate the head (for nighttime sleeping) with an extra pillow or sleep in an easy chair for the first few nights.
- Avoid blowing your nose and sneezing for the first two weeks. If you do sneeze, have your mouth open.
- Avoid doing anything that causes blood to rush to your head for at least one week. (E.g. lifting anything heavy, leaning over the sink to wash your hair, bending to pick up something).
- You can gently clean crusting from your nose with saline rinse. Combine 1tbsp salt and 1 tbsp baking soda in basin of warm water. (Rhinaris can be used instead of salt and baking soda). Cup into hands. Gently sniff into nose and let drain on its own. This needs to be done carefully as it may cause a small nosebleed.
- Apply Vaseline or Polysporin to the scar three times a day.
- If you wear glasses, try to place the nose pads below the suture site.
- A vaporizer at your bedside, Chap Stick, and drinking lots of water will help the dryness in your mouth and nose.
- The patch may be removed the next day or at bedtime.
- You can use scar therapy such as vitamin E or a silicone gel on the scar site after one week.
- Resume diet as tolerated.
- Most patients require 1 – 2 weeks recovery time.
- If you are taking antibiotics prior to surgery, you will continue as per your instructions.
- Use medications as prescribed by our office, for post-operative care.
- If a temporary silastic stent tube is placed in your tear duct then your eye(s) will continue to tear and water whilst the tube is in place. When the tube is removed 3-6 weeks later the tearing will resolve.

**We do not recommend travel outside the city for the first 24 hours after surgery due the risks of nosebleed. If you live out of Calgary we can arrange**

**a bed for you overnight in the hospital or you may stay with friends, relatives or at a hotel.**

### **WHAT IS NORMAL AFTER SURGERY?**

- Some bleeding is normal for 24 to 48 hours. This may be a steady trickle but there should not be gushing of blood.
- It is normal to have fluid collect at the lower lids where the lid and cheekbone meet. This looks like a fluid blister and will go away on its own. It may look like you have a “shiner”.
- Bruising, redness and swelling around the incision often last two weeks or more and are a normal reaction to the sutures.
- Tearing may be normal for the first few weeks.
- You may be able to blow air through your new passage, this is sometimes noticeable when you sneeze or blow your nose.

### **WHAT IS NOT NORMAL AFTER SURGERY?**

- **Uncontrolled swelling, pain, and loss of vision are a medical emergency (Extremely rare). If this happens contact the office immediately or go to an emergency room.**
- A minor nosebleed is common but one that can't be stopped is rare. High blood pressure can make nosebleeds difficult to stop. If you should experience excessive bleeding, apply pressure on the wound with ice packs. Lie quietly with head elevated. If you **cannot** stop the nosebleed – you must go to an emergency department. Do not go to a walk-in clinic or the office. Tell the emergency room staff to please call Dr. Ashenurst if there are problems.

After Hours Emergency/ On-Call Phone: 403-630-1019

### **RESCHEDULING/CANCELLING**

If you need to cancel or reschedule your surgery, we need at least one week's notice. If you do not provide one week's notice there will be a rebooking fee. Exceptions are made for emergencies with supporting documentation. Please call Surgical Booking at [1403-258-1773](tel:1403-258-1773) as soon as you can.

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