

# DACRYOCYSTORHYNOSTOMY (DCR) – CREATING A NEW TEAR DRAIN



## What is DCR?

DCR, or *dacryocystorhinostomy*, is a surgery performed to create a new tear drain between the eye and nose when your current tear drain becomes blocked or obstructed.

## What is the anatomy?

The tear drain consists of two small openings called *punctum*; one in your upper eyelid and the other in your lower eyelid. Each of these openings leads into a small tube called the *canaliculus* which, in turn, empties into the *lacrimal sac* between the inside corner of your eye and your nose. The lacrimal sac leads into a canal called the *nasolacrimal duct* that passes through the bony structures surrounding your nose and empties tears into your nasal cavity.

## How does the tear drain work?

When you blink, your eyelids push tears evenly across the eyes to keep them moist and healthy. Blinking also pumps your old tears into the puncta and lacrimal sac where they travel through the tear duct and drain into your nose. If the tear duct is blocked, your tears back up and spill over your eyelids as if you were crying. Tears trapped in the tear sac also can become stagnant and infected. A DCR can be performed to correct this problem.

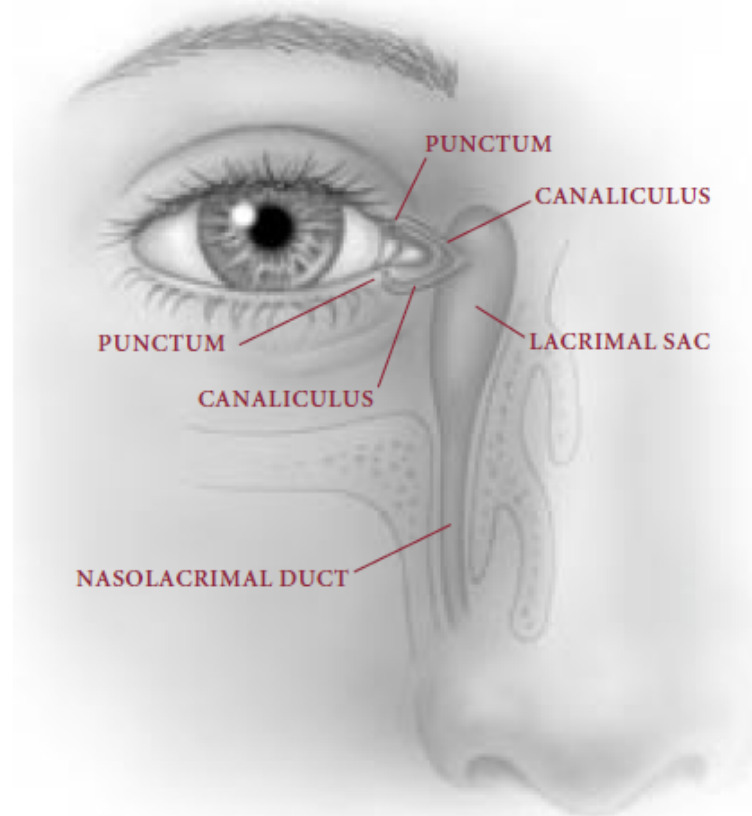
## What are the symptoms of having a plugged and infected tear drain?

The most common symptoms are excessive watering, mucous discharge, eye irritation, and painful swelling in the inner corner of your eyelids. A skillful history and physical examination can usually pinpoint the cause of tearing. If your symptoms go untreated, an infection can develop around your eye.

## What are the treatments?

Your surgeon may recommend a number of treatments based on the analysis of your symptoms. In some instances, it may be as simple as applying warm compresses and antibiotics, but often, surgery is the most effective treatment.

The most common surgical solution is the dacryocystorhinostomy. Since its introduction in the early 1900s, the procedure has the highest success rate (more than 90%) for adults who have not had prior nasal surgery or disease. To perform the procedure, your surgeon will create a new tear drain opening from the blocked sac directly into your nose to bypass the obstruction. A small incision is made either in the skin or inside the nose. A fine, soft silicone stent may temporarily be left in the new tear drain (for between one-to-six months after surgery) to keep the duct open while healing occurs. If the obstruction cannot be opened, it may be necessary to surgically place a tiny artificial drain called a “Jones tube” behind the inner corner of the eyelids. The tube is made of Pyrex glass and remains permanently in the tear duct.



Dacryocystorhinostomy surgery is usually performed as an outpatient procedure. It may be done under local anesthesia, with the patient sedated with intravenous medications, or under general anesthesia, in which case the patient will sleep through the operation. You may need to use antibiotic ointment or drops after surgery. Recovery time is generally one week.

## What are the risks and complications?

In addition to the removal of the sutures, minor bruising or swelling may be expected and will likely go away in one to two weeks. Occasionally, scar tissue may form, blocking the drain again, which may require repeating the procedure.

Bleeding and infection, which are potential risks with any surgery, are very uncommon. As with any medical procedure, there may be other inherent risks that should be discussed with your surgeon.

## Is the surgery effective?

Most patients experience resolution of their tearing and discharge once surgery is completed, with little, if any, postoperative discomfort.

## Who performs the surgery?

Patients are most commonly treated by ophthalmic plastic and reconstructive surgeons who specialize in diseases and problems of the eyelids, tear drain, and orbit (the area around the eye).

You should look for a doctor who has completed an American Society of Ophthalmic Plastic and Reconstructive Surgery (ASOPRS) fellowship. This indicates your surgeon is not only a board certified ophthalmologist, but also has had extensive training in ophthalmic plastic surgery. When you are ready, you will be in experienced hands. Your surgery will be in the surgeon’s office, an outpatient facility, or at a hospital depending on your surgical needs.

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