ENOUGH TO MAKE YOUR **EYES WATER**

Around 8,000 patients a year undergo surgery for epiphora or "watery eye", where the eyes stream because of a blockage in the drainage system. **Brian Leatherbarrow**, consultant ophthalmic and oculoplastic surgeon at Manchester Royal Eye Hospital, explains the cause

Why do eyes water?

There are two main reasons: either the eyes produce more tears than a normal tear drainage pathway can cope with, or the tear drainage pathway is abnormal. The eyes usually make too many tears for a reason, so a thorough examination is essential.

Watering is a protective reflex to help clear irritants, so chemicals, onions, fumes etc can cause the eyes to water. Another cause is an infection such as conjunctivitis or an allergy that can cause inflammation at the front of the eye. Any small injury or scratch to the front of the eye, or a piece of dirt or grit will have the same effect.

In some cases, however, the tear drainage system becomes blocked and tears will run down the cheeks.

Ingrowing eyelashes, inflammation of the eyelids, corneal ulcers or a sagging lower lid can also be a cause and the condition is not uncommon following cosmetic eyelid surgery (blepharoplasty) when it has been performed by a surgeon who is not an oculoplastic expert.

Why does water come from the eye?

Tears are made in small quantities in the tear gland just above the eye. Tears are swept across the eye by the action of the eyelids to lubricate and cleanse it. In a healthy eye, the action of blinking should expel tears into the tear drainage system via tiny holes in the corner of the eye, known as puncta.

The tears are then channelled from those holes to the tear sac, from where they pass down the nasolacrimal duct into the nose. If the tear drainage system is overwhelmed by an excess of tears – from crying, for example – then the tears run down the cheeks and the same thing occurs if the tear drainage system is blocked.

Where do blockages usually occur?

These often occur just below the junction of the nasolacrimal duct and the tear sac in the nose. If a blockage is discovered in the nasolacrimal duct, surgery can re-route tears from the tear sac straight into the nose so that the obstruction is bypassed.

Is excessive watering of the eye dangerous?

Watery eye is not inherently dangerous, but it does affect a lot of people and, as well as being a nuisance, it can cause vision to be impaired. Constant soreness of the skin of the lower eyelids may be a result.

How is a blockage discovered?

A tiny blunt needle is inserted into the puncta of the eyelids near the inner corner of the eye and salty water is gently squirted into the tear drainage system to test for blockages. If the water spurts back, that indicates a blockage and usually means that surgery is required to create another exit path for the tears.

Does surgery leave a scar?

Open surgery known as external dacryocystorhinostomy (DCR), which has been available for many years and is very effective, does leave a small permanent half-inch (1.5cm) scar on the side of the nose.

This type of surgery can also mean that wearing glasses becomes uncomfortable for a few weeks after the operation.

What is the alternative?

The alternative is keyhole surgery, known as an endoscopic DCR. The patient is usually given a general anaesthetic and local anaesthetic solution is injected around the nose. This constricts the blood vessels to minimise any bleeding from the nose. A small fibre optic endoscope is then inserted into the nasal cavity on the side of the affected eye so that the internal structures can be seen easily.

At the back of the nose a small incision is made into the tissue lining and a small amount of bone between the tear sac and the nose is removed and any rough edges smoothed with a small diamond-tipped drill. A tiny transparent silicone tube, or stent, is passed through the small drainage holes in the eyelid into the nose to prevent the new tear exit from closing up when the tissues start to heal.

This type of procedure has a success rate as high as the more basic open surgery in the hands of a suitably trained and experienced oculoplastic surgeon, but with a faster recovery time and no visible scar.

What are the after-effects?

When patients come round they will find they have a soft sponge packed into the nostril on the side of the affected eye. There should be no bruising or swelling, but a common side-effect is a nosebleed when the sponge is removed the following morning. This usually clears up within half an hour or so, after which patients are usually allowed to return home.

Within five days patients are normally back at work and certainly feeling back to normal. After about six weeks they come back to clinic to have the stent removed – a quick and painless procedure. Patients are then discharged.

How much does it cost?

An endoscopic DCR is available on the NHS; done privately, the operation will cost around £3,000.

- For more information, call 0845-833 2233 (www.faceandeye.co.uk).