

# Treating crocodile tears syndrome (eye watering when eating or drinking)

Ophthalmology Department

Information for Patients

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## What is crocodile tears syndrome?

Crocodile tears syndrome (also called gustatory lacrimation) is when one eye waters a lot when you eat or drink. It usually occurs every time you have a meal.

There are many other reasons why someone would have a watery eye and sometimes it can be a combination of many different issues. These include problems causing

- irritation of the eye,
- the eyelid to be in the wrong position (malposition), and
- blockage or narrowing of the tear drainage system.

Usually watery eyes with any of the above issues can occur at any time and not always with eating or drinking. Your health professional will take a careful history and assessment to rule out any of the above issues.

## Why did I get crocodile tears syndrome?

This condition is a rare problem usually following an episode of Bell's palsy (see leaflet 1189 Treating facial weakness affecting your eye caused by Bell's Palsy [www.yourhealth.leicestershospitals.nhs.uk](http://www.yourhealth.leicestershospitals.nhs.uk)) or other conditions that can injure the facial nerve. It can rarely be a condition that you are born with.

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We believe that as the facial nerve recovers after damage the nerves are rewired. The connection which should have gone to the glands that produces saliva in your mouth, goes to the gland that produces tears (lacrimal gland) instead.

## How is it treated?

Many treatments have been tried in the past including removing a part of the lacrimal gland, use of tablets and to have surgery to destroy the nerve connection. Unfortunately, the results from these studies have been very variable with some causing potential sight threatening complications.

**Botulinum neurotoxin type A injections** have been previously used in many conditions including one that causes sweating during eating (Frey's syndrome). It was first used as a treatment of crocodile tears syndrome in 1998 with good results and since then many studies have been published to show its benefit in patients with this condition. It is important that you are aware that this treatment is not a cure. Repeat injections are usually needed when the botulinum toxin wears off which is usually 3 to 5 months.



It works by blocking the nerve signal to the lacrimal gland. The treatment is usually given through a small injection into the top of the eye socket above the eyeball where the lacrimal gland (tear gland) is located. It can be given either through the skin or under the upper eyelid after turning the lid over. A very small dose is injected which can, on occasion, be painful but this wears off soon. It usually takes a few days for the treatment to start to work and it is usually done in a clinic setting by a trained healthcare professional.

## What happens after the treatment with botulinum toxin injection?

Usually you would not need any stitches or an eye patch. You will be able to go home after the injection. Usually there is a mild ache around the area injected. We would usually recommend some painkillers should you need this. There may be a small bruise and the eyelid will be a little swollen, but this generally settles within a few days.

## What are the side effects of botulinum toxin A injection?

Like almost every medicine, there are some important side effects that you need to be aware of prior to having this treatment:

- **Rash/Itching:** Rare but could be a reaction to the injection
- **It may not work:** Despite having the treatment, you may not find that it helps with your symptoms. A stronger dose could be considered after careful discussion of the risks.
- **Double vision:** Some of the muscles that move your eyeball are very near the site of the injection and if the injection spreads to those muscles you may experience double vision. If this is the case, it usually resolves after a few months when the treatment wears off. You should NOT drive while you have double vision.
- **Drooping/ closure of the upper eyelid:** The muscle that opens your eyelid is also near the site of injection and this could cause you to have a droopy eyelid which again will resolve after a few months.
- **Dry eye:** the treatment may reduce the quantity of tears being produced, causing you to have a dry eye. This may require lubricant eye drops.
- **Swollen eyelid:** occasional bruising may occur with the treatment. Introduction of bacterial infection by the injection is possible but very rare. Antibiotics would be needed.
- **Infection:** Because of the way botulinum toxin is made, there is a small risk of blood borne infections (such as HIV and hepatitis), although this risk is extremely low as all blood used in production of the medication is carefully screened and treated.
- **Vision loss:** with any injection around the eye there is a small possibility of side effects that can seriously effect your eye sight although this is extremely rare.

## Does the product have a licence for this condition?

Most medicines used in the UK hold a 'product licence' which is granted by a government organisation. This licence states specific conditions in which the medicine can be used to treat people. Although we have used botulinum toxin for treating eye conditions including watery eyes since 2001, the manufacturers have never applied for a licence for the product to be used for this condition.

We use it on a “named patient” basis, and records are kept of all injections and patient details. This is one example of many drugs that are licenced for use for one condition being used safely and successfully for another condition.

## Where can I get further information?

You can also contact our Oculoplastics nurse specialist team at Leicester Royal Infirmary on Tel:0116 204 7971

**Support website:** [www.facialpalsy.org.uk](http://www.facialpalsy.org.uk)

If you are not sure about any part of this leaflet, then please ask your health professional to explain further. Please keep this leaflet for future reference.

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