

Patient information factsheet

Facial nerve palsy

What is the facial nerve?

The muscles that move the face are controlled by the right and left facial nerves. Each nerve supplies one half of the face. The facial nerve travels from the brain, through a bony canal in the skull just behind the ear, to the muscles of the face. Facial nerve palsy occurs when one of these nerves stops working and so the facial muscles on that side are weak or completely paralysed.

What are the causes of facial palsy?

- Bell's palsy (Idiopathic facial palsy) – see below.
- Ramsay Hunt Syndrome due to shingles caused by the Herpes Zoster virus. There may be blisters in the ear and on the roof of the mouth as well as facial weakness.
- Lyme Disease – this is an infection, which usually follows a tick bite. There may have been a skin rash before the palsy appeared.
- Tumour of the hearing nerve (acoustic neuroma) or surgery to remove it
- Parotid gland growths or surgery to remove them.
- Stroke (cerebrovascular accident – CVA).
- Skull fracture

What is Bell's palsy?

The exact cause is not known. It is thought that inflammation develops around the facial nerve as it passes through the bony canal in the skull. This may be due to infection with the Herpes Simplex virus, which also causes cold sores. Since the canal is narrow the inflammation may squash the nerve and stop it working properly.

Bell's palsy usually starts quickly over a day or two. Sometimes there is a little earache or a viral infection a week or so before it starts. The facial weakness may get worse for up to a week. Four out of five sufferers start to recover within 3 weeks and will recover fully and the remainder usually make at least partial recovery within six months. Bell's palsy is named after the doctor who first described it and is the most common cause of facial nerve palsy.

What are the effects of facial palsy?

- The affected side of the face does not move well and looks expressionless. It may be difficult to smile, talk and eat properly.
- The upper eyelid may not close fully and blinking may be poor. The lower eyelid may droop down and flop away from the eye (ectropion). The eye can become sore, red and dry. Vision may be impaired because tears are not spread over the eye and this means that the cornea (the clear window at the front of the eye) dries out.
- Sometimes the eye waters because the lower eyelid does not move the tears towards the tear drainage ducts at the corner of the eye.
- The eyebrow may droop down and this may add to the rather lopsided appearance. Loud sounds may be uncomfortable and the sense of taste on that side of the tongue can be affected.

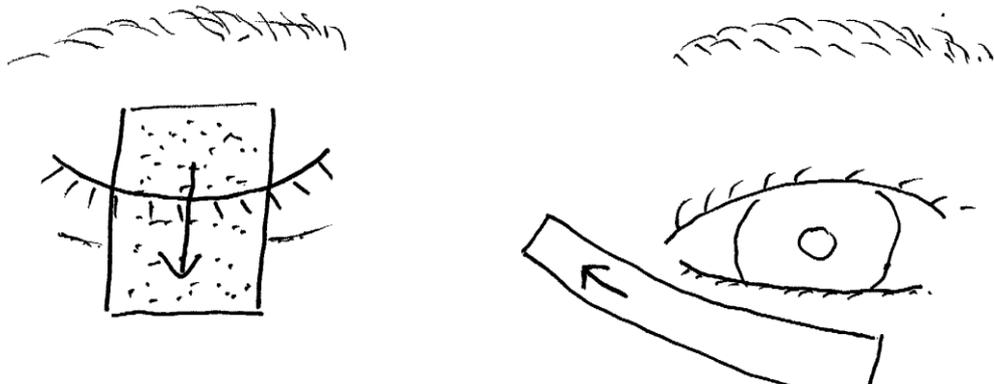
How is facial palsy managed?

The doctor may wish you to have blood tests, X-rays, scans or to see an ENT surgeon.

- Ramsay Hunt syndrome is treated with antiviral (Aciclovir) tablets for ten days.
- Bell's palsy is treated with a course of steroid tablets.
- Lyme disease is treated with antibiotics.

What are the short-term treatments?

1. **Drops and Ointment.** These will help to keep the eye moist and comfortable. Suitable artificial tear drops include Clinitas, Optive, Systane, Tears Naturale, Celluvisc, Hylotears or Liquifilm as well as many others. You should use drops regularly – do not wait until the eye is uncomfortable. Eye ointment such as Lacrilube or VitA-POS should be used at night to protect the eye. It may make the vision blurred in the morning. Putting a drop in first thing may help to wash the eye and clear the vision. If the palsy is quite bad you may be asked to use ointment or thicker drops during the day as well, even though this may blur the vision.
2. **Taping.** Sticky tape can be used to keep the eye closed at night or to pull up a droopy lower eyelid. Tape must be applied carefully so that it does not scratch the eye. It helps to dry the skin first with tissues to remove tears or ointment so the tape can stick properly.



3. **Wrap-around sunglasses** will help to protect the eye from wind, sunlight and dust when you are outdoors or your optician can fix a side-shield to your regular glasses.
4. **Moist chamber.** If taping is difficult, it may help to cover a protective eye shield (supplied by the Eye Unit) with cling film and tape this over the eye to keep the eye moist.
5. **Punctal plugs** are tiny stoppers inserted into the tear ducts in clinic to stop tears draining away. This will make the eye less dry. The plugs can easily be removed at a later date.

6. **Botox** (Botulinum Toxin A). A small injection is made into the upper eyelid, which weakens the muscle that opens the eye. It does not work immediately, but after about 2 days the upper lid will start to droop and this will protect the eye. It will still be possible to open the eye with your finger in order to put drops in. The injection wears off after several weeks by which time the palsy may also have recovered. A possible side effect is double vision, which could be corrected with prism glasses, but it should wear off within a few weeks.
7. Short-term treatments for the mouth and face include massage, exercises and regular tooth cleaning and mouthwashes. You may be referred to a physiotherapist for facial exercises.

When is surgery required?

Surgery may be required for facial palsy if it is difficult to protect the eye from drying because the eyelids do not close fully. Surgery can also be done to reduce watering of the eye or to improve the symmetry and function of the eyelids and face.

- **Lateral tarsorrhaphy**

The outer parts of the upper and lower eyelids are stitched together. This helps the lids to close. It is a quick and simple operation and is sometimes used to help protect the cornea.

- **Lateral tarsal strip**

If the lower eyelid is lax and sags down it is called ectropion. The lower eyelid is tightened at the outer corner of the lid and re-attached a little higher to improve eyelid closure.

- **Medial canthoplasty**

This operation involves stitching the inner corner of the upper and lower eyelids together to help the eyelid closure. It is often done together with one of the above operations.

- **Upper eyelid weight**

A small weight (gold or platinum) can be stitched into the upper eyelid to help it close more fully and is not usually noticeable. The size of the weight is measured at a clinic visit using stick-on test weights. Sometimes stick-on weights can be used for a few months to help lid closure.

- **Drooping eyebrow surgery**

There are several operations that can help lift a drooping eyebrow. The incisions for this operation may be over the eyebrow, in the forehead or in the scalp.

- **Face surgery**

The cheek can be lifted to help improve the lower lid position. More extensive face surgery may be done by plastic surgeons to improve the symmetry between the two sides of the face.

Specific eye problems with facial palsy:

Crocodile tears

This is a rare sequel of facial nerve paralysis, when the facial nerve tries to grow back but loses its way and grows along the wrong channels. In so doing the nerve fibres that are destined for the salivary glands grow into the tear gland (lacrimal gland) instead. As a result patients may have watering of the eye when they eat or even think of food. The treatment is Botox injections into the tear gland.

Aberrant regeneration of the facial nerve to the eyelid closing muscle

The regeneration of the nerve along the wrong pathways can also cause involuntary closure of the eyelids with movement of the lower and mid face. These patients may also require Botox injections to weaken the eyelid closing muscles.

Useful websites

www.bellspalsy.org.uk

www.bellspalsy.ws

If you have any queries about your treatment, please contact us on the following telephone numbers:

Eye short stay unit	023 8120 8600
Eye Casualty	023 8120 6592 (Anytime - 24 hour service)

For a translation of this document, an interpreter or a version in large print, Braille or on audio tape, please telephone 023 8120 4688.