

# BELL'S PALSY

The facial nerve is a mixed motor and sensory nerve supplying the muscles of the face below the eyebrows, sensation to the tongue, and controls tear and saliva secretion. It is the seventh cranial nerve, arising directly from the brain. It comes out of a hole in the skull just below and in front of the ear. Damage to the nerve (eg. Bell's palsy) causes paralysis of the face.

Inflammation of the facial nerve at the point where it leaves the skull causes the facial muscles to stop working. The exact reason for this inflammation is unknown, but there is some evidence that a viral infection, possibly a Herpes Simplex infection of the nerve may be a trigger. Other viruses including Herpes zoster and the Epstein Barr virus (causes glandular fever) have also been implicated.

Patients with Bell's palsy (idiopathic facial paralysis) experience a sudden paralysis of the facial muscles on one side only. They can no longer smile or close the eye properly. There may be some mild to moderate pain at the point where the nerve leaves the skull beside the ear, but this settles after a few days. There may also be a disturbance to taste sensation.

Theoretically, no treatment is necessary for most patients, but in practice, particularly if the patient is elderly, if the paralysis is total, or if there is severe pain, treatment with high doses of prednisone (a steroid) may be tried, provided it is started within five days of onset. Also, because the palsy may be caused by a Herpes infection, many doctors also prescribe aciclovir, again provided it is within a few days of the onset of symptoms, but this medication is expensive and not subsidised by the PBS for this indication.

10% of patients are significantly affected long term by facial paralysis, but two thirds of patients recover completely within a few weeks with no treatment. Most of the others obtain almost complete recovery.

## Other possible causes of Facial Weakness

Guillain-Barré syn. (slowly progressive, half body, peripheral paraesthesiae)

Cerebrovascular disease (other neurological defects common)

Parotid tumours (unilateral, lump at angle of jaw, tender)

Cerebral neoplasm

Multiple sclerosis

Motor neurone disease (bilateral)

Parkinson's disease (tremor, gait abnormal)

Cholesteatoma (ear discharge, ear pain, abscess on eardrum)

Brain stem encephalitis

Sarcoidosis (sarcoid infiltration of organs, bizarre symptoms. fever, rash, hepatomegaly)

Poliomyelitis

*Herpes zoster* infection (vesicular rash, pain)

Mumps (salivary glands enlarged and painful, fever)

Other serious viral infections

Tetanus (pain, paralysis)

Lyme disease (rash, headache, stiff neck, spread from deer and mice by ticks)

Brucellosis (cattl exposure, joint and muscle pain, splenomegaly)

Other serious bacterial infections

Myasthenia gravis (antibody attack on nerves, variable symptoms, dysphagia, dysarthria)

Muscular dystrophies

Trauma

Emotional and psychogenic (does not follow anatomical nerve pattern)

## BELLS'S PALSY

### **CURIOSITY**

*Bell's palsy is named after the Scottish surgeon, Charles Bell (1774 to 1842).*

### **TOTALLY, COMPLETELY AND UTTERLY USELESS INFORMATION**

#### **CROCODILE TEARS SYNDROME**

*The crocodile tears syndrome is a complication of Bell's palsy. It is possibly due to regenerating nerves that normally control salivary glands being misdirected to the tear gland during recovery from Bell's palsy. The only symptom is tears pour from the affected eye when eating. Surgically cutting the responsible abnormal nerve fibre gives good relief.*

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