

Bell's Palsy

Bell's palsy is the most common cause of a sudden onset of single-sided facial paralysis. It affects the nerve that supplies the facial muscles – the facial nerve (also called Cranial Nerve 7). It occurs when the nerve that controls the facial muscles is swollen, inflamed, or compressed, resulting in facial weakness or paralysis. In most cases, only one side of the face is affected, but it can be bilateral in 0.3% (three in one thousand cases).

Cause:

The facial nerve travels from the brain to the face via a canal within the bone at the side of your head.

There are a variety of theories about what causes Bell's Palsy, but there is not yet any definite proof for any of them.

The current theory with the most support is that the paralysis is caused by a viral infection of the nerve itself, which might cause the paralysis directly, or indirectly by compression of the nerve within its surrounding bony canal as it swells in response to the infection. In about one third of cases, the degree of damage to the nerve is limited, and some movement of the face remains. In two thirds of cases, the inflammation is severe enough to cause complete loss of movement on the affected side. In a little over half of cases, the paralysis occurs after a flu-like illness.

Symptoms:

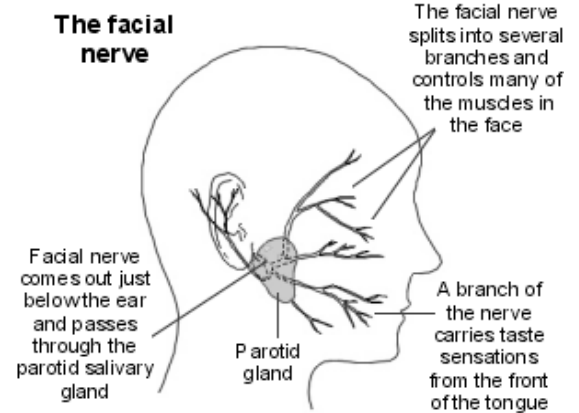
The facial nerve not only supplies the facial muscles on one side, but also a small muscle that inside your ear, taste to the same side of the tongue and mouth, tear production on that side, and some sensation on the ear and face.

People with Bell's palsy might notice:

- Weakness or slumping of one side of the face. This can result in changed appearance, difficulty with mouth movement with eating or talking, and difficulty closing the eye completely on that side.
- About half of affected people will also notice some pain or aching around and below the ear on the affected side.
- Dryness or irritation of the eye.
- Sounds might be louder on that side compared to the other.
- Loss of taste on that side.

These usually come on quite suddenly – over a few hours, or sometimes even more rapidly. If your facial weakness develops over more than two days, your doctor should look for other causes, as this not typical of Bell's Palsy.

About one in ten people who have Bell's Palsy will have another episode of Bell's Palsy in the future, and a similar number will have other family members who have had Bell's Palsy.



Bell's Palsy

Investigations:

When a doctor sees a patient with a sudden facial muscle weakness, he or she will aim to rule out other causes of the problem before diagnosing Bell's palsy. Most other causes can be ruled out by the absence of other symptoms, and a by doctor's examination. No tests may be needed. However, some tests are done in some situations:

- Special nerve tests (called nerve conduction studies) might be done to estimate the likelihood of recovery of facial movement. This can help in discussing your treatment options with you.
- If you have other nerve weaknesses, your doctor might test you for a stroke.
- Blood tests for diabetes, Lyme Disease (an infection caused by a tick bite), or autoimmune disorders might be done if you have features of these illnesses.
- If there is any hearing loss a hearing test and MRI of the ear and connecting nerves might be done.
- If the weakness fails to improve within the first three weeks of your symptoms, more tests might be done.
- If there is concern that another cause of facial paralysis might be the cause of your symptoms, other X-Rays or tests might be done.

Treatment:

For the majority of patients, full - or close to full - recovery of facial movement will occur, even without any treatment. If your face is only weak (rather than completely paralysed), essentially all function will return without intervention, usually within the first three weeks of symptoms. If your face is completely paralysed, your doctor might recommend some treatment to avoid complications of the paralysis, and to increase the chances of full recovery.

Medications:

There is now good evidence that using a course of steroid tablets (most commonly a drug called prednisolone) will improve the chance of full recovery after Bell's Palsy. These are felt to work by minimizing the inflammation of the nerve and resulting 'squashing' within the bone. Taking a course of steroids does not guarantee full recovery of the nerve function. However, it increases the chance of full recovery compared to no treatment (from about 70% to 85% overall). You should start the course of steroids as soon as possible, ideally within 3 days of symptoms starting. Starting them later than this has not shown any benefit in nerve recovery rates.

As most cases of Bell's palsy are probably due to a viral infection, it seems logical that antiviral drugs may help. However, research trials have shown that antiviral drugs taken alone make no difference to the outcome. It is possible that taking a course of steroids plus a course of antiviral medicine may work a little better than taking a course of steroids alone, but research suggests that if there is any benefit from this combination, it is likely to be small.

Analgesics such as aspirin, paracetamol, or ibuprofen may relieve pain.

Eye protection:

If you cannot close your eyelids fully, and if your tear glands are not producing a normal quantity of tears, the front of your eye is at risk of drying out and becoming damaged.

Bell's Palsy

Therefore, your doctor may advise one or more of the following until the eyelids and tear production recover:

- An eye pad or goggles to protect the eye.
- Eye drops to lubricate the eye during the day.
- Eye ointment to lubricate the eye overnight.
- Another option is to tape the upper and lower lid together when you are asleep. Other procedures are sometimes done to keep the eye shut until the eyelids recover.

If you feel that your eye is irritated, or increasingly painful, or your vision changes despite these measures, please contact your doctor urgently to make sure your eye is healthy.

Physical therapy:

Physical therapy to stimulate the facial nerve and help maintain muscle tone may be beneficial to some individuals. Facial massage and exercises may help prevent shrinkage or shortening of muscles before recovery takes place. Moist heat applied to the affected side of the face may help reduce pain.

Surgery:

In general, decompression surgery for Bell's palsy - to relieve pressure on the nerve - is controversial. Your surgeon will discuss this with you if he/she feels it may be suitable for you, and will arrange appropriate nerve testing if this is being considered.

If the facial weakness does not recover:

For the small number of cases where the facial weakness does not recover fully, and remains unsightly, some techniques may be considered. For example:

- A treatment called, 'facial retraining' with facial exercises may help.
- Injections of botulinum toxin ('Botox®') may help if spasm develops in the facial muscles.
- Surgery to help you close your eye, or to correct a 'crooked' smile.