

Bell's palsy (facial nerve palsy) in children

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Background

- Bell's palsy is an idiopathic unilateral **lower motor neurone** paresis or paralysis of the facial nerve.
- Although the cause is unknown, it is thought to be due to inflammation and oedema around the nerve.
- It is a diagnosis of exclusion and therefore alternative causes should be first considered (congenital, infectious, neoplastic, traumatic).
- Children who have no atypical features or red flags on assessment do not need further investigation, but all require follow up with GP.

Typical features	Consider alternative diagnosis
Lower motor neurone palsy (see below)	Upper motor neurone palsy
Acute onset	Gradual onset
Mild ear pain	Severe ear pain
Unilateral	Bilateral
Altered taste sensation same side	Any other neurological abnormality (esp. ipsilateral CN VI palsy)
Preceding viral illness	Concurrent infection / temperature
Hyperacusis	Facial hyperkinesia
No rash	Rash (e.g. vesicular, Lyme disease)

Assessment

Malignancy Red flags:

Upper motor neurone signs (forehead sparing)

- Gradual progression of paralysis >3 weeks
- No return of function after 6 months
- Ipsilateral recurrence
- Facial hyperkinesias
- Other cranial nerve abnormalities
- Other neurological symptoms or signs
- Headache
- Single branch involvement
- Fatigue / weight loss / loss of appetite
- Night sweats
- Lymphadenopathy
- Bruising or bleeding problems



History

- Onset
- Speed of progression
- Recent trauma
- Preceding viral illness
- Concurrent infection
- Ear pain
- Hyperacusis
- Sensory changes on same side of face
- Altered taste sensation
- Other neurological symptoms
- Potential exposure to Lyme disease (tick bite, travel to endemic areas).

Examination

Facial nerve

- Unilateral or bilateral
- LMN lesion (forehead involvement) or UMN lesion (forehead sparing)
- Paralysis (no movement) or paresis (weakness)

Test the other cranial nerves

Test the peripheral nerves

Eyes

- Is the patient able to close their eyes?
- Is there any redness? (The eye is already irritated or scratched)

Evidence of trauma

- Bruising / swelling / deformity to side of head / face
- Signs of basal skull fracture

Feel for mumps / parotid tumours and lymphadenopathy

Temperature, signs of meningitis

Check BP for hypertension

Feel femoral pulses for coarctation of aorta

ENT

- Look in the ear for infection
- Rash / herpetic blisters in ear, on palate or tongue *See picture 1*
- Test hearing,

Lyme disease

- Erythema migrans rash *See picture 2*
- Joint swelling / pain



Picture 1



Picture 2

Investigations

If there are no atypical features or red flags, no investigations are required.
Proceed to the management section.

FBC and blood film if considering malignancy
Lyme serology if considering Lyme disease
MRI if considering a cranial tumour

Management of idiopathic Bell's palsy

1. Eye care:

- Prescribe Carmellose Sodium 0.3% viscous eye drops or VitaPOS A eye ointment according to preference.
- Advise eye patch or tape the eye at night time to avoid abrasions.
If in a dusty environment, wear sunglasses/glasses or use a patch or tape to protect the eye.
- Advise that if symptoms of eye pain or redness of the eye occurs, to attend the eye casualty at SEH. (These are symptoms of corneal abrasions or foreign body in the eye.)

2. **There is currently no evidence to support the use of prednisolone or antivirals in children.**

3. Advise planned follow-up with GP in 4 – 6 weeks. GP to refer back to Paediatrics urgently (may need to be CED) if evolving neurology at any time, or worsening of symptoms beyond 3 weeks.

4. Reassure that most cases resolve within 2 months, almost all within a year.

5. Advise that symptoms may get worse before they get better.

Safety-netting advice

Advise to return to the Children's Emergency Department if there is progression of symptoms after 48 hours or if new symptoms develop, particularly:

- Headache
- Vomiting
- Temperature
- Visual disturbance
- Weakness or altered sensation in any other area of the body