

## Are drug therapies effective in treating Bell's palsy?

- Photocopy for your patients "Bell's palsy" on page 160.

### ■ EVIDENCE-BASED ANSWER

Early use of corticosteroid therapy results in less autonomic synkinesis and possibly improved rates of recovery in adults (strength of recommendation: **C**); there is no proven benefit in children (SOR: **B**).

Adding acyclovir (Zovirax) to prednisone therapy may improve recovery rates compared with prednisone alone (SOR: **C**).

The results of 1 nonblinded study indicate that intramuscular methylcobalamin (vitamin B<sub>12</sub>) used alone or in combination with prednisone may shorten time to recovery (SOR: **C**).

### ■ EVIDENCE SUMMARY

Bell's palsy is a lower motor neuron disease of the facial nerve characterized by a transient paralysis. Healing is occasionally incomplete, resulting in residual nerve dysfunction, including partial palsy and motor synkinesis (involuntary movement accompanying a voluntary one) and autonomic synkinesis (involuntary lacrimation after a voluntary muscle movement). Bell's palsy is associated with significant edema and

ischemia of the facial nerve as it passes through its bony canal.

Herpes simplex reactivation has been shown to be associated with a large proportion of cases.

Corticosteroids are the most studied form of therapy for Bell's palsy (**Table**). Early work in England culminated in 1971 with a well-performed study demonstrating lower rates of incomplete recovery with prednisolone compared with corticotrophin.<sup>1</sup> A potentially definitive randomized controlled trial in 1970 was stopped prematurely because of investigators' subjective impression that prednisone markedly reduced postauricular pain.<sup>2</sup> Subsequently, the highest-quality study had few patients (n=51) and reported no difference in outcomes between patients receiving 10 days of oral prednisone plus vitamins and those receiving vitamins alone.<sup>3</sup>

One open randomized controlled trial demonstrated shorter mean recovery times with intramuscular methylcobalamin (1.95 weeks) and methylcobalamin plus prednisone (2.0 weeks) compared with prednisone alone (9.6 weeks).<sup>4</sup> Another trial of 239 patients showed improved rates of autonomic synkinesis after treatment with 16 days of prednisone compared with placebo.<sup>5</sup>

A randomized, controlled trial of children 2 to 6 years of age found no significant differences in short-term recovery after treatment with methylprednisolone compared with untreated controls.<sup>6</sup> Eventually, all these children recovered normal

**TABLE**

### Therapies for Bell's palsy

Drug	Dosage	SOR
Prednisone (adults only)	Total from 410 mg over 10 days, to 760 mg over 16 days (tapering doses)	C
Acyclovir	400 mg 5x/d for 10 days	C
Methylcobalamin	500 (g IM 3x/wk until full recovery, or for 8 weeks	C

SOR, Strength of recommendation

facial nerve function within 12 months.

Two randomized controlled trials have assessed the efficacy of acyclovir for treatment of Bell's palsy. One trial compared prednisone with acyclovir and found patients treated with prednisone had better complete recovery rates, 93.6% versus 77.7% (absolute risk reduction [ARR]=15.9%, 95% confidence interval [CI]=2.8%–29%), number needed to treat [NNT]=7).<sup>7</sup>

Another study demonstrated that the combination of prednisone and acyclovir had greater complete recovery rates compared with prednisone alone (92% vs. 76%, ARR=16%, 95% CI=1.7%–30.3%, NNT=7).<sup>8</sup>

Overall, the data suggest corticosteroid therapy may provide a small clinical benefit in adult patients with Bell's palsy. In many of these studies, patients who had contraindications to steroid therapy (peptic ulcer disease, uncontrolled diabetes, hypertension, or immunosuppression) were excluded.

If no contraindications to steroids exist, it is reasonable to initiate treatment with corticosteroids for an adult patient with new-onset Bell's palsy. Most studies have started patients on steroids within 10 days of onset of symptoms.

### ■ RECOMMENDATIONS FROM OTHERS

A practice parameter from the American Academy of Neurology states that steroids are safe and probably effective (SOR: **B**), whereas acyclovir is safe and possibly effective (SOR: **C**).<sup>9</sup> Systematic reviews from the Cochrane Database report that available evidence from randomized controlled trials does not show significant benefit from treating Bell's palsy with corticosteroids and that clinical trials on acyclovir are inconclusive and therefore cannot be used to make recommendations regarding its use.<sup>10,11</sup>

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### ■ CLINICAL COMMENTARY

My practice of neurology began before the era of corticosteroid treatment for Bell's palsy. Despite the lack of convincing evidenced-based data, it is my clinical impression that there are far fewer patients today with incompletely resolved Bell's palsy than before the widespread use of steroids. Permanent facial deformities seemed more common back then. Therefore, in the absence of harmful effects, I will continue treating with steroids.

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From the Office of Dr. \_\_\_\_\_

## Bell's palsy

### What is Bell's palsy?

Weakness and slumping on one side of the face are common features of this condition in which the *nerve controlling the face* has been injured.

Other symptoms are:

- Inability to move affected side of the face
- Drooping mouth, unblinking eye
- Numbness
- Twitching of facial muscles
- Taste disturbance
- Increased sensitivity to sound.

Symptoms usually start suddenly. Pain behind the ear may be felt hours to days before other symptoms appear. People between ages 30 and 60 years are most likely to be affected, but this disorder can happen at any age.

Any sudden weakness of the face also suggests the possibility of stroke—a serious emergency. You should contact your physician immediately.

### Possible causes

The most common cause of Bell's palsy is an infection of the facial nerve by the herpes simplex virus. Your doctor will also ask about possible recent trauma to the face and will check for swelling of facial tissues or a mass pressing on the facial nerve.

### What to expect

In many cases, the symptoms of Bell's palsy go away in about 3 weeks without treatment, and the face regains its normal appearance. A good sign that this will happen is if the weakness or other symptoms begin to resolve after 1 week.

In other cases, symptoms may take several months to disappear. Lasting effects are possible, though rare.

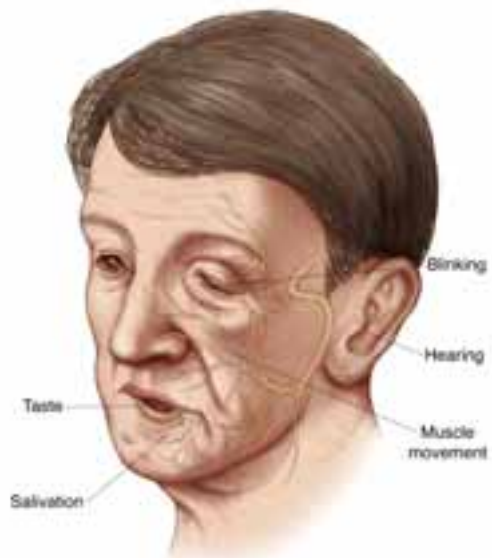


ILLUSTRATION BY STEVE OH

*In Bell's palsy, one side of the face becomes paralyzed due to an injury to the facial nerve, which controls facial muscles, tearing, and blinking.*

### Treatments your doctor may prescribe

If a viral infection is the likely cause of your symptoms, your doctor may have you take acyclovir (Zovirax), famciclovir (Famvir), or another **antiviral medication** to speed your recovery. These antiviral medications are taken as pills, usually a few times a day for 10 days.

A **steroid** (prednisone, for example) may also help to reduce swelling that could be pressing on the facial nerve. This medication is also administered as a pill over 1 to 2 weeks.

If you cannot blink, and dryness of the eye is one of your symptoms, your doctor will ask you to use moisturizing eye drops to protect the eye from damage while you recover.

The variety of different symptoms you are experiencing is due to the fact the facial nerve controls normal functions from your forehead to your chin—including tearing, taste, muscle movement, and blinking.

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