Bell's Palsy

Diagnosis/Condition:	Bell's Palsy
Discipline:	LAc
ICD-10 Codes:	G51.0
Origination Date:	2001
Review/Revised Date:	04/2025
Next Review Date:	04/2027

Bell's Palsy is the most common form of facial paralysis. The incidence rate of this disorder is about 20 per 100,000, or about 1 in 70 persons in a lifetime. The pathogenesis of the paralysis is unknown but is thought to be a result of inflammation or compression of the 7th cranial nerve. Current theories suggest a viral (herpes simplex) etiology, however clinical trials show a limited benefit of anti-viral medication.[1] In addition, the autopsied cases of this disease have shown only nondescript changes in the facial nerve but no inflammatory changes, as is commonly presumed. It is well documented that, even without treatment, patients show some recovery within three weeks and many completely recover within six months.[2] Approximately 30% of patients have notable symptoms beyond 6 months.[3] For those without full recovery (i.e. Bell's palsy sequelae), the psychological burden of facial paralysis or altered function can be overwhelming as facial expression is fundamental to patients' sense of well-being.[4]

In Acupuncture and Traditional East Asian Medicine (TEAM), deviation of the eye and the mouth, Bell's Palsy, involves the invasion of *'wind' (zhong feng)*, often within the *Yangming* meridian in the facial region. Treatment will vary due to the specific *pattern differentiation* and stage.

Numerous RCTs, the majority of which were conducted in China, have assessed the effects of acupuncture for the treatment of Bell's palsy, and its sequelae. With the exception of five small publications, the trials have been summarized in eight systematic reviews.[5-12] Based on the literature it appears *the evidence is promising to suggest benefit from acupuncture for the treatment of Bell's palsy, however more research is required to draw definitive conclusions.*

Subjective Findings and History[13]

- Paralysis or weakness of one side of the face.
- Sudden onset (within 72 hours) of unilateral facial paralysis and/or weakness with maximum effect being attained by 48 hours.
- Pain around the ear and face and pain behind the ear may precede the paralysis for a day or 2 and persist through the first few weeks of paralysis.
- Occasionally taste sensation is lost.
- Hyperacusis may be present.

- Dryness of the eye or mouth.
- Taste disturbance.
- Risk factors include pregnancy, obesity, hypertension, diabetes, immunodeficiency, and upper respiratory ailments.
- Incidence is reported highest in those 15-45 years of age.

Objective Findings

- Facial paralysis on one side.
- Incomplete closure of the eye/eyelid on the affected side.
- Drooping of the angle of the mouth.

Assessment

- Clinicians should ensure that the facial paralysis is not associated with other signs and symptoms that may indicate other diagnoses, e.g.:
    - Stroke;
    - Mass lesions/tumors;
    - Systemic and infectious diseases (e.g. Lyme disease, herpes zoster, sarcoidosis);
        - These patients should be referred to their primary care physicians for further evaluations.[13]
- Clinical impressions should be correlated to history, complaints, and objective findings to differentiate syndromes according to Traditional Chinese Medicine (TCM) or other acupuncture paradigms.
- Invasion of pathogenic wind and cold will cause paralysis and malnutrition of the muscles. Determine the stage, (early or late) and treat appropriately.[14]
    - Early stage: the *pattern* is one of an attack of *wind-cold;* treatment should focus on eliminating *wind*, resolving *toxins*, and opening the channels.
    - Late stage (sequalae) or care among elderly: The '*wind attack'* is often concurrent with an underlying *qi* and *blood* deficiency. Treatment should focus on supporting *qi*, invigorating the *blood*, and moving *stagnation* to open the channels.[14]

Plan

Acupunture:

Bell's Palsy

The acupuncture research evidence is promising; more research is required to draw definitive conclusions.

- The four most recent systematic reviews suggest benefit of acupuncture, however, each caution that, "*poor quality…trials precluded reliable conclusions."*[7,8,10,11]
    - All of the RCTs included in these reviews suggest benefit of acupuncture either adjunctive to, or in place of usual medical care.
    - Two recent RCTs not included in current reviews suggest that acupuncture adjunctive to prednisone, significantly improves therapeutic effects.[15,16]

        - Adjunctive electroacupuncture (EA) was superior to usual care (UC) alone.[16]
            - 2 Groups (n=88): 1) Standardized EA + UC; 2) UC alone [EA: 16 Tx's over 12-weeks; UC = Medications and home-care based PT for 12wks].
        - Manual needle stimulation (*deqi or a sensation of fullness*) was reported as paramount to obtain optimal effects.[15,17]
            - 2 Groups (n=338): 1) Standardized acupuncture with *deqi*; 2) No *deqi* acupuncture [20 Tx's: 5x/wk. for 4 wks; both groups received prednisone].

Bell's Palsy Sequelae (chronic symptoms; without full recovery)
More research is required to draw definitive conclusions.

- No systematic reviews have assessed the effects of acupuncture on the sequelae of Bell's palsy.
    - Three small RCTs report positive effects of acupunture and EA on Bell's palsy Sequalae.[18-20]
        - 2 Groups (n=60) 1) Semi-standardized EA; 2) TENS [18 Tx's: 3x/wk for 6wks]
        - 2 Groups (n=40): 1) Standardized EA; 2) Wait-list control [12 Tx's: 3x/wk. for 4wks].[18]
        - 2 Groups (n=39): 1) Standardized acupuncture; 2) Waitlist control [24 Tx's: 3x/wk. for 8wks].[19]
    - A 2023 retrospective study (n=45,986; Korean health insurance data) highlights the beneficial impact of early acupuncture on Bell's palsy sequelae.[21] The addition of acupuncture within 7d of diagnosis (to usual care steroids) led to a lower likelihood of recurrence (OR: 0.81, 95% CI: 0.69 - 0.95).[21]

TCM-based Treatment Guideline

- An integrated TCM-based treatment guideline recommends that treatment should begin as soon as possible with the combination of acupuncture and corticosteroids.[22]
    - Recommends use of local points, distal points (based on meridians involved), and those according to *pattern differentiation*.
        - Early stage and sequelae: Local acupuncture points (e.g., *Yang Ming* channel; courses through the facial area most affected.
        - Additional modalities: Recommendations include the use of two or more methods: moxa (heat therapy), electro-acupuncture, massage, and home therapies (e.g., facial exercises).
    - Specific recommendations based on stage:[22]
        - Early stage (symptoms <3mths): Acupuncture adjunctive to steroids.

        - Caution is suggested: Shallow needling, horizontal insertion should be applied on the facial points. Avoid strong manipulation; Electrical acupuncture is not advised.
    - Chronic stage (sequelae >3mths) TEAM approaches only, without the use of steroids or medication.
        - No cautions listed.
    - Electrical acupuncture is not advised in the acute stage.[22] It can be applied in the late stage as needed.
- Moxibustion can be used where appropriate.[1]
- Herbal/nutritional therapies can be prescribed, but practitioners should be aware of the potential interactions and toxicities.
    - Chinese herbs should be prescribed to eliminate wind/cold and to address patient's underlying deficiencies.

Conventional Treatment:[1,13]

- Oral antivirals with oral steroids within 72 hours per physician discretion. Thirty percent of patients do not recover with steroids.[23]
- Exclude identifiable causes of facial paresis (via patient intake & exam only).
- Implement eye protection for patients with impaired eye closure.
- Reassess or refer to a facial nerve specialist for:
    - New or worsening neurologic findings.
    - Ocular symptoms developing at any point.
    - Incomplete facial recovery after 3 months.

Outcome Assessment Tools

- Facial Disability Index (FDI).
- House-Brackmann Scale, objective grading system for facial nerve palsy.

Referral Criteria[13,24,25]

- Symptoms progressing >72 hours after onset
- New or worsening neurological findings.
- Ocular symptoms developing at any point.
- Incomplete facial recovery in 3 months.

Resources for Clinicians

Lo B. Bell Palsy. eMedicine from WebMD.
http://www.emedicine.com/emerg/TOPIC56.HTM

Clinical Practice Guidelines

Baugh RF, Basura GJ, Ishii LE, *et al*: Clinical practice guideline: Bell's palsy. *Otolaryngol Head Neck Surg* 2013, 149(3 Suppl):S1-27. Available at: https://aao-hnsfjournals.onlinelibrary.wiley.com/doi/10.1177/0194599813506835

Wu XL, Y; Zhu, Y-H; Zheng, H; et al. Clinical Practice Guideline of Acupuncture for Bell's Palsy. *World J Tradit Chin Med*. 2015;1(4):53-62. Available at: https://journals.lww.com/wtcm/fulltext/2015/01040/Clinical_Practice_Guideline_of_Acupuncture_for.8.aspx

Resources for Patients

National Institute of Neurological Disorders and Stroke. NINDS Bell's Palsy Information Page. https://www.ninds.nih.gov/health-information/disorders/bells-palsy

Clinical Pathway Feedback

CHP desires to keep our clinical pathways customarily updated. If you wish to provide additional input, please use the e-mail address listed below and identify which clinical pathway you are referencing. Thank you for taking the time to give us your comments.

Clinical Services Department: cs@chpgroup.com

Disclaimer Notice

The CHP Group (CHP) Clinical Pathways are a resource to assist clinicians and are not intended to be nor should they be construed/used as medical advice. The pathways contain information that may be helpful for clinicians and their patients to make informed clinical decisions, but they cannot account for all clinical circumstances. Each patient presents with specific clinical circumstances and values requiring individualized care which may warrant adaptation from the pathway. Treatment decisions are made collaboratively by patients and their practitioner after an assessment of the clinical condition, consideration of options for treatment, any material risk, and an opportunity for the patient to ask any questions.

CHP makes no representation and accepts no liability with respect to the content of any external information cited or relied upon in the pathways. The presence of a particular procedure or treatment modality in a clinical pathway does not constitute a representation or warranty that this service is covered by a patient's benefit plan. The patient's benefit plan determines coverage.

---

1. Gronseth, G.S. and R. Paduga, *Evidence-based guideline update: steroids and antivirals for Bell palsy: report of the Guideline Development Subcommittee of the American Academy of Neurology.* Neurology, 2012. **79**(22): p. 2209-13.
2. Peitersen, E., *Bell's palsy: the spontaneous course of 2,500 peripheral facial nerve palsies of different etiologies.* Acta Otolaryngol Suppl, 2002(549): p. 4-30.
3. Holland, N.J. and J.M. Bernstein, *Bell's palsy*. BMJ Clin Evid, 2014. **2014**.
4. Byrne, P.J., *Importance of facial expression in facial nerve rehabilitation.* Curr Opin Otolaryngol Head Neck Surg, 2004. **12**(4): p. 332-5.
5. He, L., et al., *Acupuncture for Bell's palsy.* Cochrane Database Syst Rev, 2004(1): p. CD002914.
6. He, L., et al., *Acupuncture for Bell's palsy.* Cochrane Database Syst Rev, 2007(4): p. CD002914.
7. Chen, N., et al., *Acupuncture for Bell's palsy.* Cochrane Database Syst Rev, 2010(8): p. CD002914.

8. Kim, J.I., et al., *Acupuncture for Bell's palsy: a systematic review and meta-analysis.* Chin J Integr Med, 2012. **18**(1): p. 48-55.
9. Zhou, M., et al., *Acupuncture for Bell's Palsy.* J Altern Complement Med, 2009.
10. Li, P., T. Qiu, and C. Qin, *Efficacy of Acupuncture for Bell's Palsy: A Systematic Review and Meta-Analysis of Randomized Controlled Trials.* PLoS One, 2015. **10**(5): p. e0121880.
11. Zhang, R., et al., *Compare the efficacy of acupuncture with drugs in the treatment of Bell's palsy: A systematic review and meta-analysis of RCTs.* Medicine (Baltimore), 2019. **98**(19): p. e15566.
12. Cumberworth, A., et al., *Is acupuncture beneficial in the treatment of Bell's palsy?: best evidence topic (BET).* Int J Surg, 2012. **10**(6): p. 310-2.
13. Baugh, R.F., et al., *Clinical practice guideline: Bell's palsy.* Otolaryngol Head Neck Surg, 2013. **149**(3 Suppl): p. S1-27.
14. Peng, Q.H.F., C.O.; Barnblatt, P., *TCM Case Studies: Eye, Ear, Nose and Throat Disorders*. 2014: PMPH-USA, 2014.
15. Xu, S.B., et al., *Effectiveness of strengthened stimulation during acupuncture for the treatment of Bell palsy: a randomized controlled trial.* CMAJ, 2013. **185**(6): p. 473-9.
16. Gökçe Kütük, S.Ö., Y. Topuz, M. F.; Kütük, M., *The Efficacy of Electro-Acupuncture Added to Standard Therapy in the Management of Bell Palsy.* J Craniofac Surg, 2020. **31**(7): p. 1967-1970.
17. Zhang, C.Y., et al., *Needle Sensation and Personality Factors Influence Therapeutic Effect of Acupuncture for Treating Bell's Palsy: A Secondary Analysis of a Multicenter Randomized Controlled Trial.* Chin Med J (Engl), 2016. **129**(15): p. 1789-94.
18. Öksüz, C.E., et al., *The Efficacy of Acupuncture in the Treatment of Bell's Palsy Sequelae.* J Acupunct Meridian Stud, 2019. **12**(4): p. 122-130.
19. Kwon, H.J., et al., *Acupuncture for the sequelae of Bell's palsy: a randomized controlled trial.* Trials, 2015. **16**: p. 246.
20. Li, T., et al., *Electroacupuncture with intermittent wave stimulation as rehabilitation approach for chronic Bell's palsy: a randomized controlled trial.* Postgrad Med J, 2024. **100**(1181): p. 151-158.
21. Choi, Y., et al., *The Impact of Early Acupuncture on Bell's Palsy Recurrence: Real-World Evidence from Korea.* Healthcare (Basel), 2023. **11**(24).
22. Wu, X., et al., *Clinical Practice Guideline of Acupuncture for Bell's Palsy.* World J Tradit Chin Med, 2015. **1**(4): p. 53-62.
23. Engstrom, M., et al., *Prednisolone and valaciclovir in Bell's palsy: a randomised, double-blind, placebo-controlled, multicentre trial.* Lancet Neurol, 2008. **7**(11): p. 993-1000.
24. de Almeida, J.R., et al., *Management of Bell palsy: clinical practice guideline.* CMAJ, 2014. **186**(12): p. 917-22.
25. Fieux, M., et al., *French Society of ENT (SFORL) guidelines. Management of acute Bell's palsy.* Eur Ann Otorhinolaryngol Head Neck Dis, 2020. **137**(6): p. 483-488.