

# The role of transcranial direct current stimulation in diminishing the risk of pneumonia in patients with dysphagia: A double-blinded randomized clinical trial

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## Keywords

Deglutition; Stroke; Electrical Stimulation; Transcranial Direct Current Stimulation; Randomized Clinical Trial; Dysphagia; Pneumonia

## Abstract

**Background:** Dysphagia can be a life-threatening issue for post-stroke patients, with aspiration pneumonia (AP) being a common risk. However, there is hope through the potential combination of transcranial direct current stimulation (tDCS) and classical behavior therapy. Our study aims to investigate the effectiveness of this combination in diminishing the risk of AP in patients with dysphagia who suffered from stroke.

**Methods:** In this randomized, parallel-group, blinded

clinical trial, 48 patients were allocated into the sham group (speech therapy + 30 seconds of tDCS) and the real group (speech therapy + 20 minutes of tDCS). We used the Mann Assessment of Swallowing Ability (MASA) as an assessment tool. We assessed patients at baseline, one day after treatment, and at a one-month follow-up.

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