

## Transcutaneous Electrical Stimulation versus Traditional Dysphagia Therapy

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**Category:** Laryngology

### Authors

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### Abstract

**Objectives:** Recent investigations suggest that cervical transcutaneous electrical stimulation (TES) may be an effective treatment of oropharyngeal dysphagia. The purpose of this investigation was to compare the efficacy of TES to traditional dysphagia therapy (TDT) in treating persons with dysphagia and aspiration.

**Methods:** The charts of forty consecutive individuals undergoing TES and forty consecutive persons undergoing TDT in a long-term acute care facility were reviewed. Information regarding patient demographics, swallowing dysfunction, number of treatments, length of hospitalization, presence of a tracheotomy tube, and diagnosis were evaluated. Treatment success was gauged by improvement on a swallow severity scale.

**Results:** The mean age of the cohort was 72. Sixty-five percent was male. The most common diagnoses were respiratory failure (75%), stroke (5%), and sepsis (4%). There was a trend toward a fewer number of treatments ( $p=0.07$ ) and a shorter length of hospitalization ( $p=0.05$ ) in the TES group. The swallow severity scale improved from 0.50 to 1.48 in the TDT ( $p<0.05$ ) and from 0.28 to 3.23 in the TES ( $p<0.001$ ) group. After adjusting for disease severity, age, gender, and number of treatments, persons receiving TES did significantly better in regards to improvement in their swallowing function than persons receiving TDT ( $p = 0.003$ ).

**Conclusions:** The results of this retrospective case-control study suggest that dysphagia therapy with transcutaneous electrical stimulation is superior to traditional dysphagia therapy alone in individuals in a long-term acute care facility. Prospective investigations are warranted to better evaluate the clinical efficacy of electrical stimulation swallowing therapy.

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