

## Dick, Shaolyn, et al, 2022 Abstract

### Swallowing Rehabilitation Following Spinal Injury

#### Objective

Swallowing difficulties (dysphagia) are well recognized after spinal injury. This study explored viability and outcomes of swallowing rehabilitation programmes for patients with persisting dysphagia.

#### Results

Conclusions: For many patients following spinal injury, dysphagia resolves during the acute phase of post-surgery recovery. For some, significant pharyngeal impairments persist. The case series demonstrated the potential to regain functional swallowing following a six-week tailored rehabilitation programme.

#### Participants and Researchers

Four patients with persisting dysphagia participated in the study – three men and a woman ranging in age from 63 to 76 years.

The researchers were: *Shaolyn Dick, Jess Thomas* and *Anna Miles* from Speech Science, University of Auckland, Auckland, New Zealand; and *Jessica McMillan* and *Kelly Davis* from Counties Manukau Health, Auckland, New Zealand.

#### Methods

The patients engaged in a six-week (three times weekly) individualised progressive rehabilitation programme and all four patients completed the full six-week programme.

**Surface electromyography (sEMG)** was used in all therapy sessions utilising the **NeuroTrac MyoPlus** hardware and Verity software (Verity Medical)]. Surface EMG provided biofeedback and motivation during sessions allowing patients to better monitor and modify their performance. **Surface EMG** readings were also used by the researchers, alongside feeling and fatigue scale scores, to set intensity thresholds for patients and gauge progression in intensity.

The full abstract can be found at

<https://pubmed.ncbi.nlm.nih.gov/32441589/>