



# EVIDENCE SEARCH RESULTS

<b>Question/subject of request:</b>	The evidence base for speech & language therapy intervention in upper motor facial palsy.
<b>Date requested:</b>	27/09/2024
<b>Date completed:</b>	
<b>Compiled by:</b>	Veronica Price

## CITING THIS SEARCH

If you reference this search in any paper, publication or presentation, please let us know.

The citation format is:

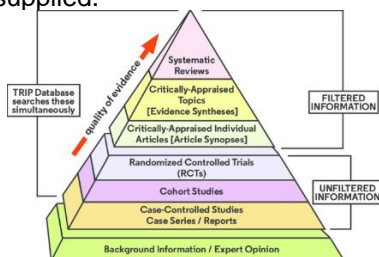
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The results are presented according to the hierarchy of evidence which is used to rank the relative strength of results obtained from scientific research.

The design of the study and the endpoints measured affect the strength of the evidence.

Evidence hierarchies are often applied in evidence-based practices and are integral to evidence-based medicine.



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**Summary of search results:**

I have searched the bibliographic databases as well as the grey literature and there seems to be a paucity of literature which directly addresses your question. I have therefore not applied any date limitations, so the articles included here date back as far as 2008. I have organised them according to the evidence pyramid and within each section the articles are arranged in reverse chronological order.

The most up to date RCT (Amaral 2024) has an English abstract, but the rest of the article is written in Portuguese. I have included it in case you have a Portuguese speaker in your team ( or want to try an AI translation) because it looks like an interesting investigation into the use of athletic tape.

I hope this is helpful. Please do let us know if you need any further information.



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Thank you.

## NICE

### [NICE Guideline NG 236](#)

Speech therapy is included in the list of rehabilitation therapies to be offered to stroke patients.

The short explanation to accompany 2023 updates states that:

“The committee also reviewed evidence on the optimal duration of occupational therapy and speech and language therapy sessions, but this was limited to a small number of studies and therefore, insufficient to recommend any increase in the timings alone. However, there was nothing to suggest that the intensity should be less than a minimum of 45 minutes a day, 5 days per week, the timings recommended in the 2013 guideline. On reviewing this evidence together with that on physiotherapy and noting that some people might benefit from joint therapy sessions, the committee recommended a total therapy time rather than specifying timings for each form of therapy. They also noted that the evidence did not distinguish between people with and without communication difficulties, and agreed that it could apply to both groups. There was not enough evidence to recommend rehabilitation for



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7 days instead of 5 days a week. However, the committee made [recommendation for research into the clinical and cost effectiveness of providing rehabilitation for 7 days a week](#). They also made [recommendations for research into the possible benefits of more intensive cognitive and psychological therapy](#), and of [more intensive swallowing therapy](#).”

The full analysis of the evidence which contributed to the recommendations can be found [here](#), [here](#) and [here](#).

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## Systematic Reviews

### [A Systematic Review of Physical Rehabilitation of Facial Palsy](#)

**Authors:** Vaughan, Annabelle; Gardner, Danielle; Miles, Anna; Copley, Anna; Wenke, Rachel, et al

**Publication Date:** March 31 ,2020

**Journal:** *Frontiers in Neurology* 11

**Abstract: Background:** Facial palsy is a frequent and debilitating sequela of stroke and brain injury, causing functional and aesthetic deficits as well as significant adverse effects on quality of life and well-being. Current literature reports many cases of acquired facial palsy that do not recover spontaneously, and more information is needed regarding the efficacy of physical therapies used in this population. **Methods:** A systematic search of eight electronic databases was performed from database inception to December 2018. Gray literature searches were then performed to identify additional articles. Studies were included if they addressed physical rehabilitation interventions for adults with acquired facial palsy. Reasons for exclusion were documented. Independent data extraction, quality assessment, and risk of bias assessment followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines. **Results:** Following abstract screening, a total of 13 full-text articles were identified for independent screening by two reviewers. This included four randomized control trials, two non-randomized control trials, one cohort study, and six prospective case series studies. Twelve out of the 13 included studies reported on facial palsy as a sequela of stroke. A total of 539 participants received intervention for facial palsy across the 13 included studies. Therapy design, length and frequency of intervention varied across the studies, and a wide range of outcome measures were used. Improvement on various outcome measures was reported across all 13 studies. The quality of the evidence was low overall, and most studies were found to have high risk of bias. **Conclusions:** All the studies in this review report improvement of facial movement or function following application of various methods of physical rehabilitation for facial palsy. Methodological limitations and heterogeneity of design affect the strength of the evidence and prevent reliable comparison between intervention methods. Strong evidence supporting physical rehabilitation was not found; well-designed rigorous research is required.

### [Orofacial functional impairments among patients following stroke: a systematic review](#)

**Authors:** Dai, R.; Lam, O. Lt; Lo, E. Cm; Li, L. Sw; Wen, Y., et al

**Publication Date:** Oc ,2015

**Journal:** *Oral Diseases* 21(7), pp. 836–849



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**Abstract:** OBJECTIVES: The objective of this study was to review orofacial functional impairments among patients following stroke, including objective and subjective assessment. METHODS: A structured search strategy was applied to three electronic databases (Pubmed, Embase, and Web of Science) to identify effective papers. Relevant data regarding subjects, method, outcomes, and key findings were extracted from the effective papers and the results were summarized. RESULTS: The initial search yielded 5227 papers, and 18 effective papers (Kappa: 0.971) were in accordance with the inclusion criteria. The patients with stroke consistently showed a decreased lip force, salivary flow rate, and chewing performance compared with the healthy controls. Due to equivocal results gained from the effective papers, the qualitative assessments regarding whether there was any change in masticatory force on the affected side and oral health-related quality of life were inconclusive. CONCLUSIONS: Existing evidence highlights a number of compromised orofacial functions experienced by patients following stroke. These impairments appear to be sustained, with spontaneous recovery unlikely to occur. While rehabilitative approaches may have the potential to improve orofacial function and quality of life following stroke, there is currently a lack of evidence-based interventions available to inform the development of comprehensive rehabilitation protocols.

### [Facial exercise therapy for facial palsy: systematic review and meta-analysis](#)

**Authors:** Pereira, L. M.;Obara, K.;Dias, J. M.;Menacho, M. O.;Lavado, E. L., et al

**Publication Date:** Ju ,2011

**Journal:** Clinical Rehabilitation 25(7), pp. 649–658

**Abstract:** The effectiveness of facial exercises therapy for facial palsy has been debated in systematic reviews but its effects are still not totally explained. OBJECTIVE: To perform a systematic review with meta-analysis to evaluate the effects of facial exercise therapy for facial palsy. DATA SOURCES: A search was performed in the following databases: Cochrane Controlled Trials Register Library, Cochrane Disease Group Trials Register, MEDLINE, EMBASE, LILACS, PEDro, Scielo and DARE from 1966 to 2010; the following keywords were used: 'idiopathic facial palsy', 'facial paralysis', 'Bell's palsy', 'physical therapy', 'exercise movement techniques', 'facial exercises', 'mime therapy', 'facial expression', 'massage' and 'randomized controlled trials'. REVIEW METHODS: The inclusion criteria were studies with facial exercises, associated or not with mirror biofeedback, to treat facial palsy. RESULTS: One hundred and thirty-two studies were found but only six met the inclusion criteria. All the studies were evaluated by two independent reviewers, following the recommendations of Cochrane Collaboration Handbook for assessment of risk of bias (kappa coefficient = 0.8). Only one study presented sufficient data to perform the meta-analysis, and significant improvements in functionality was found for the experimental group (standardized mean difference (SMD) = 13.90; 95% confidence interval (CI) 4.31, 23.49; P = 0.005). CONCLUSION: Facial exercise therapy is effective for facial palsy for the outcome functionality.

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## Scoping Review

### [The role of oral and pharyngeal motor exercises in post-stroke recovery: A scoping review](#)

**Authors:** Marzouqah, Reeman;Huynh, Anna;Joyce, L. Chen;Mark, I. Boulos and Yunusova, Yana



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**Publication Date:** 2023

**Journal:** Clin Rehabil 37(5), pp. 620–635

**Abstract:** Objective To analyze intervention goals, protocols, and outcome measures used for oral and pharyngeal motor exercises in post-stroke recovery. Data sources MEDLINE, EMBASE, CINAHL, PsychINFO, and Cochrane databases were searched in September 2022. Methods Studies were included if they (1) recruited post-stroke adult patients, (2) administered exercises for the oral and/ or pharyngeal muscles, and (3) reported results at baseline and post-exercise. The extracted data included intervention goals, protocols, and outcomes. All outcomes were classified according to the International Classification of Functioning, Disability and Health (ICF). Results A total of 26 studies were identified. Their intervention goals aimed to rehabilitate a broad spectrum of muscle groups within the oral cavity and pharynx and to improve the functions of swallowing, speech, facial expressions, or sleep breathing. Protocol duration ranged from 1 to 13 weeks, with various exercise repetitions (times per day) and frequency (days per week). Half of the studies reported using feedback to support the training, and these studies varied in the feedback strategy and technology tool. A total of 37 unique outcome measures were identified. Most measures represented the body functions and body structure component of the ICF, and several of these measures showed large treatment effects. Conclusions This review demonstrated inconsistency across published studies in intervention goals and exercise protocols. It has also identified current limitations and provided recommendations for the selection of outcome measures while advancing a multidisciplinary view of oral and pharyngeal exercises in post-stroke recovery across relevant functions.;

Objective To analyze intervention goals, protocols, and outcome measures used for oral and pharyngeal motor exercises in post-stroke recovery. Data sources MEDLINE, EMBASE, CINAHL, PsychINFO, and Cochrane databases were searched in September 2022. Methods Studies were included if they (1) recruited post-stroke adult patients, (2) administered exercises for the oral and/ or pharyngeal muscles, and (3) reported results at baseline and post-exercise. The extracted data included intervention goals, protocols, and outcomes. All outcomes were classified according to the International Classification of Functioning, Disability and Health (ICF). Results A total of 26 studies were identified. Their intervention goals aimed to rehabilitate a broad spectrum of muscle groups within the oral cavity and pharynx and to improve the functions of swallowing, speech, facial expressions, or sleep breathing. Protocol duration ranged from 1 to 13 weeks, with various exercise repetitions (times per day) and frequency (days per week). Half of the studies reported using feedback to support the training, and these studies varied in the feedback strategy and technology tool. A total of 37 unique outcome measures were identified. Most measures represented the body functions and body structure component of the ICF, and several of these measures showed large treatment effects. Conclusions This review demonstrated inconsistency across published studies in intervention goals and exercise protocols. It has also identified current limitations and provided recommendations for the selection of outcome measures while advancing a multidisciplinary view of oral and pharyngeal exercises in post-stroke recovery across relevant functions.

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## RCTs

[Use of athletic tape in the speech-language-hearing treatment of post-stroke facial paralysis in the acute phase](#)

**Authors:** Amaral, Raquel Karoline Goncalves; Vicente, Laelia Cristina Caseiro; Chaves,



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Tatiana Simoes and Mourao, Aline Mansueto

**Publication Date:** 2024

**Journal:** Cogas 36(3), pp. e20230153

**Abstract:** PURPOSE: To verify the efficacy of using athletic tape associated with myofunctional therapy in the speech-language-hearing treatment of facial palsy after stroke in the acute phase. METHOD: Randomized controlled clinical study with 88 patients with facial palsy in the acute phase of stroke. The sample was allocated in: Group 1: rehabilitation with orofacial myofunctional therapy and use of athletic tape on the paralyzed zygomaticus major and minor muscles; Group 2: rehabilitation alone with orofacial myofunctional therapy on the paralyzed face; Group 3: no speech-language-hearing intervention for facial paralysis. In the evaluation, facial expression movements were requested, and the degree of impairment was determined according to the House and Brackmann scale. Movement incompetence was obtained from measurements of the face with a digital caliper. After the evaluation, the intervention was carried out as determined for groups 1 and 2. The participants of the three groups were reassessed after 15 days. The statistical analysis used was the generalized equations. RESULTS: The groups were homogeneous in terms of age, measure of disability and functioning, severity of neurological impairment and pre-intervention facial paralysis. Group 1 had a significant improvement in the measure from the lateral canthus to the corner of the mouth, with better results than groups 2 and 3. CONCLUSION: The athletic tape associated with orofacial myofunctional therapy had better results in the treatment of facial paralysis after stroke in the place where it was applied.; Publisher OBJETIVO: Verificar a eficacia do uso da bandagem elastica funcional associada a terapia miofuncional no tratamento fonoaudiologico da paralisia facial pos-acidente vascular cerebral na fase aguda. METODO: Estudo clinico controlado randomizado com 88 pacientes com paralisia facial na fase aguda do acidente vascular cerebral. A amostra foi alocada em: Grupo 1: reabilitacao com terapia miofuncional orofacial e utilizacao da bandagem elastica funcional nos musculos zigomaticos maior e menor paralisados; Grupo 2: reabilitacao apenas com terapia miofuncional orofacial na face paralisada; Grupo 3: sem qualquer intervencao fonoaudiologica para paralisia facial. Na avaliacao foram solicitados os movimentos de mimica facial e o grau do comprometimento foi determinado de acordo com a escala de House e Brackmann. A incompetencia do movimento foi obtida a partir de medicoes da face com paquimetro digital. Apos a avaliacao, a intervencao foi realizada de acordo como determinado para os grupos 1 e 2. Os participantes dos tres grupos foram reavaliados apos 15 dias. A analise estatistica utilizada foi das equacoes generalizadas. RESULTADOS: Os grupos foram homogeneos quanto a idade, medida de incapacidade e funcionalidade, gravidade do comprometimento neurologico e da paralisia facial pre-intervencao. O grupo 1 teve melhora significativa na medida canto externo do olho a comissura labial, com melhores resultados quando comparado aos grupos 2 e 3. CONCLUSAO: A bandagem elastica funcional associada a terapia miofuncional orofacial apresentou melhor resultado no tratamento da paralisia facial apos acidente vascular cerebral no local onde foi aplicado. Language: Portuguese

[Central facial paresis and its impact on mimicry, psyche and quality of life in patients after stroke](#)



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**Authors:** Konecny, Petr;Elfmark, Milan;Horak, Stanislav;Pastucha, Dalibor;Krobot, Alois, et al

**Publication Date:** 2014

**Journal:** Biomedical Papers of the Medical Faculty of the University Palacky, Olomouc, Czechoslovakia 158(1), pp. 133–137

**Abstract:** AIM: Using functional scales and face video analysis, changes in central facial paresis are monitored in patients with stroke after orofacial therapy and correlations between changes in mimicry, mental function and overall quality of life of patients after stroke are made. MATERIALS AND METHODS: A prospective randomized study of patients after stroke with facial paresis. The functional status of the experimental group of 50 cases with orofacial regulation therapy and 49 control cases without mimicry therapy is observed after four weeks of rehabilitation. RESULTS: Changes in mimicry functions evaluated by the House-Brackmann Grading System (HBGS) clinical range and using 2D video analysis of the distance between the paretic corner of the mouth and earlobe at rest and during smiling were statistically better in the experimental group than in controls. Changes in mental function - depression using Beck Depression Inventory and changes in the quality of life using Bartle index and modified Rankin score (scale) were significantly greater in the experimental group. There was a very close relationship between the changes in mimicry, mental state and overall quality of life according to the Spearman correlative coefficient. CONCLUSION: Orofacial rehabilitation therapy for patients with paresis after stroke has a significant influence on the adjustment of mimicry, mental functions and overall quality of life after 4 weeks of treatment.

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## Studies

[Physical rehabilitation of central facial palsy: A survey of current multidisciplinary practice](#)

[we would need to request full-text access via ILL]

**Authors:** Vaughan, Annabelle;Copley, Anna and Miles, Anna

**Publication Date:** 2022

**Journal:** International Journal of Speech-Language Pathology 24(6), pp. 616–625

**Abstract:** Purpose: The role of allied health practitioners providing physical rehabilitation of central facial palsy (CFP) is minimally reported in the literature. This study explores current practice and the roles, attitudes and perceptions of allied health professionals (AHPs) working with people with CFP. Method: An electronic survey was distributed to speech-language pathologists (SLPs), occupational therapists and physiotherapists. Responses (n = 78) were analysed using qualitative and quantitative methods. Result: SLPs often lead management of CFP; however, their role is not clearly defined nor well recognised. Several barriers were identified which prevent AHPs from providing consistent specialist rehabilitation to people with CFP. These included a lack of training, no clear delegation of role, limited evidence and lack of resources. Conclusion: Survey respondents viewed CFP to be within SLP scope of practice; although, ownership of management varies between



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countries and professions. Most SLPs recognise the negative impact of CFP and feel a sense of responsibility to provide assessment and treatment of this impairment, but many barriers to doing so have been identified. Suggestions to improve access to rehabilitation for people with CFP included increased access to training for SLPs, more evidence, clinical practice guidelines and more clinical resources. Further research is required to ensure people suffering from CFP can access services that provide skilled management of their impairment.

### [Oro-facial impairment in stroke patients](#)

**Authors:** Schimmel, M.;Ono, T.;Lam, O. L. T. and Muller, F.

**Publication Date:** Ap ,2017

**Journal:** Journal of Oral Rehabilitation 44(4), pp. 313–326

**Abstract:** Stroke is considered one of the leading causes of death and acquired disability with a peak prevalence over the age of 80 years. Stroke may cause debilitating neurological deficiencies that frequently result in sensory deficits, motor impairment, muscular atrophy, cognitive deficits and psychosocial impairment. Oro-facial impairment may occur due to the frequent involvement of the cranial nerves' cortical representation areas, central nervous system pathways or motoneuron pools. The aim of this narrative, non-systematic review was to discuss the implications of stroke on oro-facial functions and oral health-related quality of life (OHRQoL). Stroke patients demonstrate an impaired masticatory performance, possibly due to reduced tongue forces and disturbed oral sensitivity. Furthermore, facial asymmetry is common, but mostly discrete and lip restraining forces are reduced. Bite force is not different between the ipsi- and contra-lesional side. In contrast, the contra-lesional handgrip strength and tongue-palate contact during swallowing are significantly impaired. OHRQoL is significantly reduced mainly because of the functional impairment. It can be concluded that impaired chewing efficiency, dysphagia, facial asymmetry, reduced lip force and OHRQoL are quantifiable symptoms of oro-facial impairment following a stroke. In the absence of functional rehabilitation, these symptoms seem not to improve. Furthermore, stroke affects the upper limb and the masseter muscle differently, both, at a functional and a morphological level. The rehabilitation of stroke survivors should, therefore, also seek to improve the strength and co-ordination of the oro-facial musculature. This would in turn help improve OHRQoL and the masticatory function, subsequently preventing weight loss and malnutrition. Copyright © 2017 John Wiley & Sons Ltd.

### [Oral tactile sensitivity and masticatory performance are impaired in stroke patients.](#)

**Authors:** Schimmel, M.;Voegeli, G.;Duvernay, E.;Leemann, B. and Muller, F.

**Publication Date:** Ma ,2017

**Journal:** Journal of Oral Rehabilitation 44(3), pp. 163–171

**Abstract:** Oro-facial impairment following stroke frequently involves reduced chewing performance, that is oral phase dysphagia. The aim was to investigate the sensitivity of oral tissues following stroke and its potential impact on masticatory function. Therefore, hospitalised post-stroke patients were recruited and compared to healthy controls. Outcome measures comprised masticatory performance employing a colour-mixing ability, that is a bolus-kneading test, maximum lip- and bite force and the one-point and two-point tactile thresholds. Food hoarding and prevalence of dry mouth were evaluated with ordinal scales. Twenty-seven stroke patients (age 64.3 +/- 14.1 years) and 27 healthy controls (age 60.8 +/-



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14.3 years,  $P = 0.254$ ) participated in this study. The groups had similar numbers of occluding units. Stroke patients reported more frequently dry mouth sensations and food hoarding. The intra-oral tactile sensitivity on the contra-lesional side was significantly lower in stroke patients compared to controls ( $0.0001 < P < 0.0002$ ), and significant intra-group side differences were found only in the stroke group ( $0.0001 < P < 0.0010$ ). For the lip, both sides were less sensitive in the stroke group compared with controls. The experiments confirmed lower masticatory performance and lip force in the stroke group, but the bite force was similar compared to healthy controls. Oral sensitivity was correlated with masticatory performance when a global correlation model was applied. A stroke may affect the sensitivity of the intra-oral tissues contra-lesionally, thus potentially affecting chewing function. Rehabilitation should therefore not only focus on motor impairment, but equally stimulate the sensitivity of the oral tissues, employing dry ice application or similar specific treatments. Copyright © 2017 John Wiley & Sons Ltd.

**[Monitoring facial changes in the course of inter-professional, individually targeted rehabilitation at the Department of Rehabilitation Medicine 1ST Medical Faculty of Charles University and General University Hospital in Prague](#)**

[This is item 0076 in the list of conference abstracts available at the link]

**Item Type:** Conference Proceeding

**Authors:** Svestkova, O., Brizova, M., Dankova, S., Krajicek, V. and Velemínska, J.

**Publication Date:** 2017

**Publication Details:** Brain Injury. Conference: 12th World Congress on Brain Injury of the International Brain Injury Association. New Orleans, LA United States. 31(6-7) (pp 742-743); Taylor and Francis Ltd,

**Abstract:** Background: Assessment of the effects of therapy and rehabilitation for facial palsy is not always clear. In our pilot study, we used the modern approach of photogrammetry for the assessment of facial motor function during mimicking of facial expression before and after rehabilitation. The study includes day care patients-day care being for patients who have suffered an acquired brain injury. Method(s): There is an ongoing comprehensive rehabilitation programme, compiled for the individual patient. The rehabilitation programme includes doctors, physiotherapists, occupational therapists, a clinical psychologist, a speech therapist and an education specialist. Part of the therapy is also made up of non-verbal psychotherapeutic methods: music therapy, dance therapy and art therapy. We also use music therapy as speech therapy. Rehabilitation takes place over 4-6 weeks. Our study includes patients who have suffered a traumatic brain injury and patients who have suffered a stroke, with precise indication and contraindication criteria. Result(s): The research is based on 3D surface scanning of the patient's face (during the second and last week of treatment) and a control group of individuals performing five facial expressions (neutral expression, raised eyebrows and forehead, eyes closed, lips pursed, inflated cheeks and smile). The process and the interpretation of the patients' results after scanning is time-consuming, but we believe that the beginning of any scientific research project and searching for standard objective interpretational methodology is always so. Further, we believe that in the case of future patients, where we will already have a tested methodology and more experience in the interpretation of the results, the time factor will be reduced. In this communication, we present two case reports of patients. The study was based on co-operation between the Department of Rehabilitation Medicine, General University Hospital in Prague and the 1st. Medical Faculty of Charles University in Prague and the Department of Anthropology and Human Genetics, Faculty of Science, Charles



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University in Prague.



**[Effect of oral IQoro R and palatal plate training in post-stroke, four-quadrant facial dysfunction and dysphagia: A comparison study.](#)**

**Authors:** Hagg, Mary and Tibbling, Lita

**Publication Date:** Sep ,2015

**Journal:** Acta Oto-Laryngologica 135(9), pp. 962–968

**Abstract:** **CONCLUSION:** Training with either a palatal plate (PP) or an oral IQoro(R) screen (IQS) in patients with longstanding facial dysfunction and dysphagia after stroke can significantly improve facial activity (FA) in all four facial quadrants as well as swallowing capacity (SC). Improvements remained at late follow-up. The training modalities did not significantly differ in ameliorating facial dysfunction and dysphagia in these patients. However, IQS training has practical and economic advantages over PP training. **OBJECTIVES:** This study compared PP and oral IQS training in terms of (i) effect on four-quadrant facial dysfunction and dysphagia after a first-ever stroke, and (ii) whether the training effect persisted at late follow-up. **METHODS:** Patients were included during two periods; 13 patients in 2005-2008 trained with a PP, while 18 patients in 2009-2012 trained with an IQS. Four-quadrant facial dysfunction was assessed with an FA test and swallowing dysfunction with a SC test: before and after a 3-month training period and at late follow-up. FA and SC significantly improved ( $p < 0.001$ ) in both groups. FA test scores after training and at late follow-up did not differ significantly between the groups, irrespective of whether the interval between stroke incidence and the start of training was long or short.

**[Lip muscle training in stroke patients with dysphagia.](#)**

**Authors:** Hagg, Mary and Anniko, Matti

**Publication Date:** Sep ,2008

**Journal:** Acta Oto-Laryngologica 128(9), pp. 1027–1033

**Abstract:** **CONCLUSION:** Training with an oral screen can improve lip force (LF) and swallowing capacity (SC) in stroke patients with oropharyngeal dysphagia, irrespective of the duration of pretreatment of dysphagia, and irrespective of the presence or absence of central facial paresis. It is more plausible that treatment results are attributable to sensory motor stimulation and the plasticity of the central nervous system than to the training of the lip muscles per se. **OBJECTIVES:** A close relationship has been demonstrated between LF and SC in stroke patients whether or not they are affected by facial paresis. It is not known how training of lip function can improve swallowing capacity. The present study was therefore designed to ascertain: (i) if training with an oral screen can improve the LF and SC of stroke patients with oropharyngeal dysphagia; to establish (ii) if improvement in LF and SC is connected with the presence or absence of central facial palsy, (iii) on the interval between stroke onset and initiation of treatment, (iv) on age, or (v) on sex. **SUBJECTS AND METHODS:** This was a retrospective study of 30 stroke patients, 49-88 years old, who were investigated with a Lip Force Meter, LF100 (LF100) and a swallowing capacity test (SCT) before and after a period of self-training lasting at least 5-8 weeks, using an oral screen. Initial central facial paresis was present in 24 patients. **RESULTS:** The median LF was 7 Newtons (N) (range 0-27) before treatment and 18.5 N (range 7-44) after treatment ( $p < 0.001$ ). The median SC was 0 ml/s (range 0-9.1) before treatment and 12.1 ml/s (range 0-



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36.7) at follow-up ( $p < 0.001$ ). There was no significant difference in swallowing improvement between patients with versus those without facial paresis. The interval between stroke attack and start of treatment, ranging from a few days up to 10 years, had no significant influence on the treatment results, nor did age or sex. The facial paresis was improved or at least ameliorated in all patients after the lip training period.

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## Online Articles and Reports

**Bulletin: The Official Magazine of the Royal College of Speech & Language Therapists, March 2019**

### [Saving Face by Luke de Vissier](#)

Explains how the Complex Facial Clinic at the National Hospital for Neurology and Neurosurgery treats patients with facial muscle weakness.

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✓	Embase		PsycINFO	Grey Literature: Future NHS, NHS Improvement, NICE, HQIP
	AMED	✓	UpToDate	Other- Google Advanced search, AI tool Consensus

PURPOSE OF SEARCH			
	Patient info/health & well being	✓	Clinical decision making (inc. patient care)
	Executive Team support	✓	Research/Education/Professional development
	Quality Improvement		Primary Care & Neighbourhoods Directorate support
	KM/Management decision making		Other





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<input type="checkbox"/>	Other

HAS PERMISSION TO SHARE THE RESULTS BEEN OBTAINED FROM THE REQUESTOR?	
<input checked="" type="checkbox"/>	YES - share
<input type="checkbox"/>	NO – do not share

KEY WORDS/SEARCH STRATEGY INCLUDING MESH HEADINGS	LIMITS USED
<p>Medline search strategy: Ovid MEDLINE(R) ALL &lt;1946 to November 01, 2024&gt;</p> <p>1 "rehabilitation of speech and language disorders"/ or language therapy/ or myofunctional therapy/ or speech, alaryngeal/ or speech therapy/ or voice training/ 11615</p> <p>2 (therap* adj2 (speech or language or voice)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] 15159</p> <p>3 Deglutition Disorders/ or Voice Disorders/ 31218</p> <p>4 1 or 2 or 3 47189</p> <p>5 facial paralysis.mp. or Facial Paralysis/ 15761</p> <p>6 (facial adj3 (paralysis or paresis or palsy or impair)).mp. [mp=title, book title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms, population supplementary concept word, anatomy supplementary concept word] 21065</p>	





7 (facial adj3 (nerve or muscle or move\* or reanimat\*)).mp.  
[mp=title, book title, abstract, original title, name of substance word,  
subject heading word, floating sub-heading word, keyword heading  
word, organism supplementary concept word, protocol  
supplementary concept word, rare disease supplementary concept  
word, unique identifier, synonyms, population supplementary  
concept word, anatomy supplementary concept word] 27260

8 central nervous system disease.mp. or Central Nervous  
System Diseases/ 20567

9 "upper motor neuron".mp. 2070

10 Stroke/ or stroke.mp. 404791

11 (central adj (facial adj (paralysis or paresis or palsy))).mp.  
[mp=title, book title, abstract, original title, name of substance word,  
subject heading word, floating sub-heading word, keyword heading  
word, organism supplementary concept word, protocol  
supplementary concept word, rare disease supplementary concept  
word, unique identifier, synonyms, population supplementary  
concept word, anatomy supplementary concept word] 163

12 5 or 6 or 7 or 11 37970

13 8 or 9 or 10 426431

14 4 and 12 and 13 41

CINAHL search strategy:

Accessibility Information and TipsPrint Search History

Wed, October 30, 2024 04:34:10 pm

# Query Limiters/Expanders Last Run Via Results  
S3 S1 AND S2 Expanders - Apply equivalent subjects  
Search modes - Proximity Interface - EBSCOhost Research  
Databases  
Search Screen - Advanced Search  
Database - CINAHL 18

S2 "upper motor neuron facial palsy" OR (MH "Facial Muscles")  
OR (MH "Facial Paralysis") OR "facial palsy" OR "facial nerve  
dysfunction" OR "facial paralysis" Expanders - Apply equivalent  
subjects  
Search modes - Proximity Interface - EBSCOhost Research  
Databases  
Search Screen - Advanced Search  
Database - CINAHL 3,496

S1 (MH "Speech Therapy") OR "speech therapy" OR (MH  
"Language Therapy") OR (MH "Voice Therapy") OR speech  
therapist Expanders - Apply equivalent subjects  
Search modes - Proximity Interface - EBSCOhost Research  
Databases  
Search Screen - Advanced Search  
Database - CINAHL 10,934

Embase and Emcare search strategy:

Embase <1974 to 2024 October 29>

1 speech therapy.mp. or speech therapy/ 18063  
2 speech language pathologist/ or speech therapist\*.mp.  
6140





3	1 or 2	23062
4	facial nerve paralysis/ or "upper motor neuron facial palsy".mp.	27819
5	(facial adj3 (palsy or paralysis or dysfunction or paresis)).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	32899
6	4 or 5	32899
7	3 and 6	142

