



< Back to results | 1 of 1

[Download](#)
[Print](#)
[Save to PDF](#)
[Add to List](#)
[Create bibliography](#)
Life • Volume 15, Issue 5 • May 2025 • Article number 800**Document type**

Review

Source type

Journal

ISSN

20751729

DOI

10.3390/life15050800

Publisher

Multidisciplinary Digital Publishing Institute (MDPI)

Original language

English

View less

Musculoskeletal Impairments and Dysfunction in Individuals with Head and Neck Cancer Following Surgery with Neck Dissection—A Systematic Review

Mohamad, Norazlin^{a, b} ; Oliveira-Souza, Ana Izabela Sobral de^c ; Ntoukas, Stephanie M.^d ;
 Castro-Carletti, Ester Moreira de^c ; Munajat, Munayati^e ; Dennett, Liz^f ;
 Courneya, Kerry S.^d ; Armijo-Olivo, Susan^{a, c, g} ; McNeely, Margaret L.^{a, h}

Save all to author list

^a Physical Therapy Department, Faculty of Rehabilitation Medicine, University of Alberta, Edmonton, T6G 2G4, AB, Canada

^b Centre of Physiotherapy, Faculty of Health Sciences, Universiti Teknologi MARA, Puncak Alam Campus, Puncak Alam 42300, Malaysia

^c Faculty of Business and Social Sciences, University of Applied Sciences, Osnabrück, 49076, Germany

^d Faculty of Kinesiology, Sport, and Recreation, University of Alberta, Edmonton, T6G 2R3, AB, Canada

^e Department of Physical Rehabilitation Sciences, Kuliyah of Allied Health Sciences, International Islamic University Malaysia (IIUM), Kuantan, 25200, Malaysia

^f Geoffrey and Robyn Sperber Health Sciences Library, University of Alberta, Edmonton, T6G 1C9, AB, Canada

^g Department of Dentistry, Faculty of Medicine and Dentistry, University of Alberta, Edmonton, T6G 2R3, AB, Canada

^h Supportive Care and Patient Experience, Cancer Care Alberta, Edmonton, T6G 2G4, AB, Canada

Hide additional affiliations

[View PDF](#)
[Full text options](#)
[Export](#)

Cited by 0 documents

Inform me when this document is cited in Scopus:

[Set citation alert >](#)
Related documents

[Postoperative shoulder function after different types of neck dissection in head and neck cancer](#)

Sheikh, A. , Shallwani, H. , Ghaffar, S.
(2014) *Ear Nose and Throat Journal*

Rehabilitation after neck dissection

Mineta, H.
(2013) *Practica Oto Rhino Laryngologica*

The Sonography and Physical Findings on Shoulder after Selective Neck Dissection in Patients with Head and Neck Cancer: A Pilot Study

Huang, Y.-C. , Leong, C.-P. , Lee, Y.-Y.

(2019) *Biomed Research International*

[View all related documents based on references](#)

Find more related documents in Scopus based on:

Authors > Keywords >

Abstract

Background: Various forms of head and neck cancer (HNC) surgery that include a neck dissection procedure have been shown to negatively influence the neuromusculoskeletal function of the structures affected. This review aimed to identify the neuromusculoskeletal impairments experienced by individuals with HNC following surgery involving different types of neck dissection procedures. Methods: The search was conducted in four databases, encompassing randomized control trials (RCTs), cross-sectional studies, and cohort studies that explored neuromusculoskeletal impairments and dysfunction following HNC surgery. The risk of bias in the included studies was assessed using the ROB 2 tool for RCTs and the ROBINS-I tool for non-RCTs. Results: Sixty-seven studies were included (prospective cohort studies n = 29; cross-sectional studies n = 21; retrospective studies n = 13; and RCTs n = 4). This review revealed diverse neuromusculoskeletal impairments and disabilities in individuals with HNC after undergoing various types of neck dissection. The overall quality of evidence was low due to methodological limitations and variability in assessment tools. Conclusions: The extent and type of neuromusculoskeletal impairment resulting from surgery varied depending on the type of surgery and the outcome measures used. Further high-quality studies with standardized assessment, consistent outcome measures, and long-term follow-up are needed to improve the credibility of research in this area. © 2025 by the authors.

Author keywords

functional disability; head and neck neoplasms; musculoskeletal impairments; neck dissections; postoperative complications; systematic review

Sustainable Development Goals		
SciVal Topics		
Metrics		

References (116)

View in search results format >

☐ All

Export

 Print

 E-mail

 Save to PDF

Create bibliography

☐ 1

Macfarlane, T.V., Wirth, T., Ranasinghe, S., Ah-See, K.W., Renny, N., Hurman, D.

Head and Neck Cancer Pain: Systematic Review of Prevalence and Associated Factors

(2012) *J. Oral Maxillofac. Res*, 3, p. e1. Cited 71 times.