



CADTH Reference List

Alcohol Neurolysis for Chronic Knee, Hip, and Shoulder Pain

August 2023

Key Messages

- We found 1 nonrandomized study about the clinical effectiveness of alcohol neurolysis for adults with chronic knee, hip, or shoulder pain.
- We did not find any studies about the clinical effectiveness of phenol neurolysis for adults with chronic knee, hip, or shoulder pain.
- We did not find any evidence-based guidelines about the use of alcohol neurolysis or phenol neurolysis for adults with chronic knee, hip, or shoulder pain.

Research Questions

1. What is the clinical effectiveness of alcohol neurolysis for adults with chronic knee, hip, or shoulder pain?
2. What is the clinical effectiveness of phenol neurolysis for adults with chronic knee, hip, or shoulder pain?
3. What are the evidence-based guidelines regarding the use of alcohol neurolysis or phenol neurolysis for adults with chronic knee, hip, or shoulder pain?

Methods

Literature Search Methods

An information specialist conducted a literature search on key resources including MEDLINE, the Cochrane Database of Systematic Reviews, the International HTA Database, the websites of Canadian and major international health technology agencies, as well as a focused internet search. The search approach was customized to retrieve a limited set of results, balancing comprehensiveness with relevancy. The search strategy comprised both controlled vocabulary, such as the National Library of Medicine's MeSH (Medical Subject Headings), and keywords. Search concepts were developed based on the elements of the research questions and selection criteria. The main search concepts were neurolysis and alcohol or phenol. The search was completed on August 2, 2023, and limited to English-language documents published since January 1, 2018. Internet links were provided, where available.

Selection Criteria

One reviewer screened literature search results (titles and abstracts) and selected publications according to the inclusion criteria presented in [Table 1](#). Full texts of study publications were not reviewed. Open access full-text versions of evidence-based guidelines were reviewed when available.

Table 1: Selection Criteria

Criteria	Description
Population	Adults with chronic pain in the knee, hip, or shoulder joints
Intervention	Q1 and Q3: Alcohol neurolysis Q2 and Q3: Phenol neurolysis
Comparator	Q1 and Q2: Alternative nonsurgical interventions (e.g., routine medical management, corticosteroid joint injection), placebo, or no treatment Q3. Not applicable
Outcomes	Q1 and Q2: Clinical benefits (e.g., pain relief, health-related quality of life, functional improvement [e.g., activities of daily living]) and harms (e.g., fall risk) Q3. Recommendations regarding best practices for alcohol or phenol neurolysis (e.g., indications, number of lesions needed for effective treatment, who provides the procedure, setting for procedure)
Study designs	Health technology assessments, systematic reviews, randomized controlled trials, nonrandomized studies, evidence-based guidelines

Results

One prospective cohort study was identified regarding the clinical effectiveness of alcohol neurolysis for adults with chronic knee pain.¹ No relevant literature was identified regarding the clinical effectiveness of phenol neurolysis for adults with chronic knee, hip, or shoulder pain. No relevant evidence-based guidelines regarding the use of alcohol neurolysis or phenol neurolysis for adults with chronic knee, hip, or shoulder pain were identified. No health technology assessments, systematic reviews, or randomized controlled trials were identified.

Additional references of potential interest that did not meet the inclusion criteria are provided in [Appendix 1](#).

References

Health Technology Assessments

No literature identified.

Systematic Reviews

No literature identified.

Randomized Controlled Trials

No literature identified.

Non-Randomized Studies

1. Elashmawy MM, Shabana AAH, Elsaid TO, Elhawary GM. Ultrasound-guided genicular nerve block versus alcoholic neurolysis for treatment of advanced knee osteoarthritis patients. *Egypt Rheumatol.* 2022;44(4):307-311.

Guidelines and Recommendations

No literature identified.

Appendix 1: References of Potential Interest

Non-Randomized Studies

Alternative Population – People With Chronic Coccydynia

Malik SH, Ahmad K, Ali L. Ganglion impar block for chronic coccydynia. *J Ayub Med Coll Abbottabad*. 2023;35(1):123-126. [PubMed](#)

Unclear Population – Adults Not Specified

Shaikh W, Miller S, McCormick ZL, Patel PM, Teramoto M, Walega DR. Chemical neurolysis of the genicular nerves for chronic refractory knee pain: an observational cohort study. *Pain Med*. 2023 07 05;24(7):768-774. [PubMed](#)

Risso RC, Ferraro LHC, Nouer Frederico T, et al. Chemical ablation of genicular nerve with phenol for pain relief in patients with knee osteoarthritis: a prospective study. *Pain Pract*. 2021 04;21(4):438-444. [PubMed](#)

Case Studies

Nouer Frederico T, Ferraro LHC, Lemos JD, Sakata RK. Chemical neurolysis of the lateral branches of the sacral dorsal rami for the treatment of chronic pain in the sacroiliac joint: case report and description of the technique. *Pain Pract*. 2022 01;22(1):134-136. [PubMed](#)

Ahmed A, Arora D. Ultrasound-guided neurolysis of six genicular nerves for intractable pain from knee osteoarthritis: a case series. *Pain Pract*. 2019 01;19(1):16-26. [PubMed](#)

Dass RM, Kim E, Kim HK, Lee JY, Lee HJ, Rhee SJ. Alcohol neurolysis of genicular nerve for chronic knee pain. *Korean J Pain*. 2019 Jul 01;32(3):223-227. [PubMed](#)

Sasaki S, Chan WS, Ng TK, Sham P. Ultrasound-guided pericapsular hip joint alcohol neurolysis for the treatment of hip pain: a case report of a novel approach. *A A Pract*. 2018 Aug 01;11(3):60-62. [PubMed](#)

Authors: Weiyi Xie, Danielle MacDougall

Contributor: Candice Madakadze

Cite As: *Alcohol Neurolysis for Chronic Knee, Hip, and Shoulder Pain*. (CADTH reference list). Ottawa: CADTH; 2023 Aug.

Disclaimer: The information in this document is intended to help Canadian health care decision-makers, health care professionals, health systems leaders, and policy-makers make well-informed decisions and thereby improve the quality of health care services. While patients and others may access this document, the document is made available for informational purposes only and no representations or warranties are made with respect to its fitness for any particular purpose. The information in this document should not be used as a substitute for professional medical advice or as a substitute for the application of clinical judgment in respect of the care of a particular patient or other professional judgment in any decision-making process. The Canadian Agency for Drugs and Technologies in Health (CADTH) does not endorse any information, drugs, therapies, treatments, products, processes, or services.

While care has been taken to ensure that the information prepared by CADTH in this document is accurate, complete, and up to date as at the applicable date the material was first published by CADTH, CADTH does not make any guarantees to that effect. CADTH does not guarantee and is not responsible for the quality, currency, propriety, accuracy, or reasonableness of any statements, information, or conclusions contained in any third-party materials used in preparing this document. The views and opinions of third parties published in this document do not necessarily state or reflect those of CADTH.

CADTH is not responsible for any errors, omissions, injury, loss, or damage arising from or relating to the use (or misuse) of any information, statements, or conclusions contained in or implied by the contents of this document or any of the source materials.

This document may contain links to third-party websites. CADTH does not have control over the content of such sites. Use of third-party sites is governed by the third-party website owners' own terms and conditions set out for such sites. CADTH does not make any guarantee with respect to any information contained on such third-party sites and CADTH is not responsible for any injury, loss, or damage suffered as a result of using such third-party sites. CADTH has no responsibility for the collection, use, and disclosure of personal information by third-party sites.

Subject to the aforementioned limitations, the views expressed herein do not necessarily reflect the views of Health Canada, Canada's provincial or territorial governments, other CADTH funders, or any third-party supplier of information.

This document is prepared and intended for use in the context of the Canadian health care system. The use of this document outside of Canada is done so at the user's own risk.

This disclaimer and any questions or matters of any nature arising from or relating to the content or use (or misuse) of this document will be governed by and interpreted in accordance with the laws of the Province of Ontario and the laws of Canada applicable therein, and all proceedings shall be subject to the exclusive jurisdiction of the courts of the Province of Ontario, Canada.

The copyright and other intellectual property rights in this document are owned by CADTH and its licensors. These rights are protected by the Canadian *Copyright Act* and other national and international laws and agreements. Users are permitted to make copies of this document for non-commercial purposes only, provided it is not modified when reproduced and appropriate credit is given to CADTH and its licensors.

About CADTH: CADTH is an independent, not-for-profit organization responsible for providing Canada's health care decision-makers with objective evidence to help make informed decisions about the optimal use of drugs, medical devices, diagnostics, and procedures in our health care system.

Funding: CADTH receives funding from Canada's federal, provincial, and territorial governments, with the exception of Quebec.

Questions or requests for information about this report can be directed to requests@cadth.ca