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# 2024 Neutron Beam Radiation Therapy

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## *Radiation Therapy*

RT-NEUT-HH

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Guideline Initiated: 11/27/2023





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## Table of Contents

Neutron Beam Radiation Therapy .....	3
Neutron Radiation Therapy Guideline .....	3
Neutron Beam Radiation Therapy Procedure Codes .....	3
Neutron Beam Radiation Therapy Summary of Changes .....	3
Neutron Beam Radiation Therapy Definitions .....	3
Neutron Beam Radiation Therapy References .....	3
Disclaimer & Legal Notice .....	4

## Neutron Beam Radiation Therapy

### Neutron Radiation Therapy Guideline

Neutron Beam Radiation Therapy for cancer: [1] [4] [2] [3]

- The role of this therapy is uncertain/unclear in the current evidence. Requests for this therapy require review by a physician reviewer, medical director and/or the individual's healthplan.

### Neutron Beam Radiation Therapy Procedure Codes

**Table 1. Neutron Beam Radiation Therapy Associated Procedure Codes**

CODE	DESCRIPTION
77423	High energy neutron radiation treatment delivery, 1 or more isocenter(s) with coplanar or non-coplanar geometry with blocking and/or wedge, and/or compensator(s)

## Neutron Beam Radiation Therapy Summary of Changes

Neutron Beam Radiation Therapy guideline from 2023 to 2024 had the following changes:

- Citations updated per the evidence.
- Evidence reviewed and indications remained the same.

## Neutron Beam Radiation Therapy Definitions

**Neutron beam radiation therapy** specializes in treating inoperable, radioresistant tumors occurring anywhere in the body. Neutrons are high linear-energy-transfer (high LET) radiation and the damage is done primarily by nuclear interactions. If a tumor cell is damaged by low LET radiation it has a good chance to repair itself and continue to grow. With high LET radiation the chance for a damaged tumor cell to repair itself is very small.

## Neutron Beam Radiation Therapy References

- [1] Geiger, J., Ismaila, N., . . . Ha, P., M.D. (2021). Management of Salivary Gland Malignancy: ASCO Guideline. *The American Society of Clinical Oncology Journal*, 17, 1909-1941.
- [2] Pfister, D.G., Spencer, S., . . . Zhen, W. (2024). Head and Neck Cancers Version 4.2024. *National Comprehensive Cancer Network*. Retrieved: July 2024. [https://www.nccn.org/professionals/physician\\_gls/pdf/head-and-neck.pdf](https://www.nccn.org/professionals/physician_gls/pdf/head-and-neck.pdf)

- [3] van Herpan, C., Poorten, V.V., . . . Machiels, P. (2024). Salivary gland cancer: ESMO–European Reference Network on Rare Adult Solid Cancers (EURACAN) Clinical Practice Guideline for diagnosis, treatment and follow-up. *ESMO Open*, 7(6), 1-16.
- [4] Wein, R.O. and Weber, R.S. (2021). Malignant Neoplasms of the Oral Cavity. P.W. Flint & H.W. Francis (Eds.). *Cummings Otolaryngology: Head and Neck Surgery* (7), (pp. 1289-1315). Philadelphia, PA: Elsevier Inc.

## Disclaimer & Legal Notice

### Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

### Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

### Payment

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