

Radiation Therapy for Non-oncologic Indications, Medical 351

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All requests for authorization for the services described by this medical policy will be reviewed per Early and Periodic Screening, Diagnostic and Treatment (EPSDT) guidelines. These services may be authorized under individual consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member’s condition. Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.

Description & Definitions:

Radiation Therapy for Non-oncologic (non-cancerous or malignant) **indications** delivers radiotherapy for nonmalignant diseases, inflammatory conditions, and neurological disorders.

Low Dose Radiation Therapy (LDRT): administering smaller amounts of radiation compared to traditional high-dose therapy (IMRT, SBRT) to achieve anti-inflammatory effects and pain relief.

Intensity Modulated Radiation Therapy (IMRT): high radiation dose in smaller doses over a longer duration for precision.

Stereotactic Body Radiation Therapy (SBRT): high radiation doses with a shorter duration.

Other common names: Radiation therapy (RT), Non-oncological radiotherapy

** NOTE: this policy does not cover any surgical procedures

Criteria:

RADIATION THERAPY is considered medically necessary for **1 or more** of the following:

- Non-oncologic (non-malignant) conditions, to include **1 or more** of the following:
 - **Acoustic neuroma** (Vestibular Schwannoma)
 - **Choroidal hemangioma**

- **Craniopharyngioma**
 - **Dupuytren's contracture** (fibromatosis)
 - **Extramedullary hematopoiesis** (hypersplenism)
 - **Glomus tumor**
 - **Gorham-Stout syndrome** (disappearing bone syndrome)
 - **Graves' ophthalmopathy** (also known as Thyroid eye disease (TED))
 - **Gynecomastia**
 - **Hemangioblastoma**
 - **Hemangiomas** (brain, spinal cord, subglottis, glottis, liver, GI tract, urinary tract, joints and orbit)
 - **Heterotopic ossification (HO)**
 - **Hypersalivation of amyotrophic lateral sclerosis (ALS)**
 - **Hyperthyroidism**
 - **Langerhans cell histiocytosis (LCH)**, (eosinophilic granuloma)
 - **Meningioma**
 - **Paraganglioma** (chromaffin positive)
 - **Peyronie's disease** (morbus peronie, induratio penis plastica)
 - **Pineocytoma**
 - **Pituitary adenoma**
 - **Precancerous melanosis**
 - **Pterygium**
 - **Steward's disease** (lethal midline granuloma)
 - **Schwannoma**
- Non-oncologic (non-malignant) conditions when there is **failure or contraindication to established medical and surgical treatment** to include **1 or more** of the following:
 - **Aneurysmal bone cyst as the last resort**
 - **Angiofibroma of nasopharynx** (juvenile nasopharyngeal angiofibroma) with extension into the orbital apex or base of skull *for unresectable disease*
 - **Angiomatosis retinae** (von Hippel Lindau syndrome): beta plaque
 - **Bowen's disease** (squamous cell carcinoma in situ) *when alternatives (surgery, electrodesiccation and curettage, topical 5FU) are not possible*
 - **Carcinoid tumor for unresectable non-secretory, or secreting tumors**
 - **Castleman's disease** (giant lymph node hyperplasia),orbital pseudotumor and Waldeyer's ring *for unresectable or refractory or relapsed of Steroids are indicated as initial management or contraindicated.*
 - **Choroid plexus papilloma for unresectable disease**
 - Degenerative skeletal and joint disorders for **1 or more** of the following:
 - **Osteoarthritis with All of the following:**
 - Individual 60 years of age or older;
 - Individual had a consultation/evaluation completed by an orthopedic surgeon and was considered to have disease advanced enough for joint replacement deemed to be medically inoperable.
 - **Plantar fasciitis**
 - **Trochanteric bursitis**
 - **Desmoid tumor for inoperable cases, unresectable disease**
 - **Giant cell tumor of bone** (osteoclastoma) *for unresectable disease*
 - **Erythroplasia of Queyrat if topical agents is contraindicated**
 - **Inverted papilloma incomplete resection or suspected malignant component**
 - **Keloid scars Prevention with All of the following:**
 - Approved for surgical excision of keloids (additional codes 15786, 15787)
 - Adjunctive therapy immediately following excisional surgery (within 7 days)
 - **Lymphangiomas** (capillary, cavernous, cystic hydromas, lymphangial, hemangiomas) *refractory lesions with repeated recurrence after resection*

- **Neurosarcoidosis** for refractory or relapsed of Steroids are indicated as initial management or contraindicated conservative treatments of symptoms.
- **Non-cutaneous neurofibromas** lesions for unresectable disease
- **Orbital myositis** for refractory or relapsed of Steroids are indicated as initial management or contraindicated.
- **Orbital pseudotumor** (lymphoid hyperplasia) recur after surgery, or become refractory or relapsed of Steroids are indicated as initial management or contraindicated.
- **Parotid adenoma** for > 4 cm, positive margin status, and multinodularity
- **Pinealoma** (pineal parenchymal tumors) for postoperative radiation for incomplete resection
- **Prophylactic Cranial Irradiation (PCI)** with **All of the following**:
 - Individual had a good response to initial therapy
 - Eastern Cooperative Oncology Group (ECOG) Performance Status score) ≤ 2
- **Rosai-Dorfman disease** for lesions involving the airway not responding to more conservative measures
- **Splenomegaly** secondary to either a myeloproliferative disorder, cirrhosis, or Leukemia
- **Tolosa-Hunt syndrome** (episodic orbital pain) recur after surgery, or become refractory or relapsed of Steroids or Methotrexate are indicated as initial management or contraindicated.
- **Total Body Irradiation (TBI)** used as preparation of an individual for bone marrow or stem cell transplant
- **Total lymphoid irradiation** in situations of chronic rejection
- **Trigeminal neuralgia** for refractory or relapsed of Antiepileptic or Muscle relaxants are indicated as initial management or contraindicated.
- **Villonodular synovitis** for recurrent after resection, or diffuse or bulky disease-causing bone destruction, tenosynovial giant cell tumor

RADIATION THERAPY for Non-oncologic (non-malignant) conditions is considered **not medically necessary** for **ANY use other** than those indicated in clinical criteria, to include, but not limited to:

- Arteriovenous Malformations (AVM)
- Abortion
- Acne
- Adamantinoma (ameloblastoma)
- Amyloidosis
- Ankylosing spondylitis
- Anovulation
- Arachnoiditis
- Castration
- Corneal vascularization
- Corneal xanthogranuloma
- Cutaneous neurofibroma
- Depression/ OCD
- Fibrosclerosis (sclerosing disorders)
- Gas gangrene
- Herpes zoster
- Hidradenitis suppurativa
- Infections (bacterial)
- Infections (fungal and parasitic)
- Inflammatory (acute/chronic) disorders not responsive to antibiotics (furuncles, carbuncles, sweat gland abscesses)
- Juvenile xanthogranuloma
- Keratitis (bullous and filamentary)
- Macular degeneration
- Ocular trichiasis (epilation)
- Osteoid osteoma (osteoblastoma, giant osteoid osteoma)
- Otitis media

- Pancreatitis
- Parotitis
- Peptic ulcer disease
- Perifolliculitis (scalp)
- Persistent lymphatic fistula
- Plasma cell granuloma (benign)
- Pregnancy
- Psoriasis
- Psychiatric disorders
- Pyogenic granuloma
- Rheumatoid arthritis
- Sinusitis
- Thyroiditis
- Tonsillitis
- Tuberculosis lymphadenitis
- Vernal catarrh
- Warts

Document History:

Revised Dates:

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Coding:

Medically necessary with criteria:

Coding	Description
77373	Stereotactic body radiation therapy, treatment delivery, per fraction to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions
77401	Radiation treatment delivery, superficial and/or ortho voltage, per day
77402	Radiation treatment delivery, => 1 MeV; simple
77407	Radiation treatment delivery, => 1 MeV; intermediate
77412	Radiation treatment delivery, => 1 MeV; complex 77431 - Radiation therapy management with complete course of therapy consisting of 1 or 2 fractions only
77427	Radiation treatment management, 5 treatments
77431	Radiation therapy management with complete course of therapy consisting of 1 or 2 fractions only
77432	Stereotactic radiation treatment management of cranial lesion(s) (complete course of treatment consisting of 1 session) ?

77435	Stereotactic body radiation therapy, treatment management, per treatment course, to 1 or more lesions, including image guidance, entire course not to exceed 5 fractions ?
77469	Intraoperative radiation treatment management
77470	Special treatment procedure (eg, total body irradiation, hemibody radiation, per oral or endocavitary irradiation)

Considered Not Medically Necessary:

Coding	Description
	None

U.S. Food and Drug Administration (FDA) - approved only products only.

The preceding codes are included above for informational purposes only and may not be all inclusive. Additionally, inclusion or exclusion of a treatment, procedure, or device-code(s) does not constitute or imply member coverage or provider reimbursement.

Special Notes: *

- Coverage:
 - See the appropriate benefit document for specific coverage determination. Member specific benefits take precedence over medical policy.
- Application to products
 - Policy is applicable to Sentara Health Plan Medicaid products.
 - Refer to OncoHealth for cancer radiation treatments
- Authorization requirements
 - Pre-certification by the Plan is required.
- Special Notes:
 - Medicaid
 - This medical policy express Sentara Health Plan’s determination of medically necessity of services, and they are based upon a review of currently available clinical information. These policies are used when no specific guidelines for coverage are provided by the Department of Medical Assistance Services of Virginia (DMAS). Medical Policies may be superseded by state Medicaid Plan guidelines. Medical policies are not a substitute for clinical judgment or for any prior authorization requirements of the health plan. These policies are not an explanation of benefits.
 - Medical policies can be highly technical and complex and are provided here for informational purposes. These medical policies are intended for use by health care professionals. The medical policies do not constitute medical advice or medical care. Treating health care professionals are solely responsible for diagnosis, treatment and medical advice. Sentara Health Plan members should discuss the information in the medical policies with their treating health care professionals. Medical technology is constantly evolving and these medical policies are subject to change without notice, although Sentara Health Plan will notify providers as required in advance of changes that could have a negative impact on benefits.
 - The Early and Periodic Screening, Diagnostic and Treatment (EPSDT) covers services, products, or procedures for children, if those items are determined to be medically necessary to “correct or ameliorate” (make better) a defect, physical or mental illness, or condition (health problem) identified through routine medical screening or examination, regardless of whether coverage for the same service or support is an optional or limited service under the state plan. Children enrolled in the FAMIS Program are not eligible for all EPSDT treatment services. All requests for authorization for the services described by this medical policy will be reviewed per EPSDT guidelines. These services may be authorized under individual

consideration for Medicaid members under the age of 21-years if the services are judged to be medically necessary to correct or ameliorate the member's condition. Department of Medical Assistance Services (DMAS), Supplement B - EPSDT (Early and Periodic Screening, Diagnosis and Treatment) Manual.

References:

Including but not limited to: Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

29th Edition. (2025). Retrieved 6 2025, from MCG: <https://careweb.careguidelines.com/ed28/>

Brain arteriovenous malformations. (2025, 4). Retrieved 7 2025, from UpToDate: https://www.uptodate.com/contents/brain-arteriovenous-malformations?search=Arteriovenous%20malformation%20§ionRank=3&usage_type=default&anchor=H16&source=machineLearning&selectedTitle=1~150&display_rank=1#H12

Diseases & Conditions. (2025). Retrieved 7 2025, from Cleveland Clinic: [https://my.clevelandclinic.org/health/diseases?dFR\[type\]\[0\]=diseases](https://my.clevelandclinic.org/health/diseases?dFR[type][0]=diseases)

Expanding the Scope: Radiation Therapy for Nonmalignant Diseases. (2024, 1). Retrieved 7 2025, from American Society for Therapeutic Radiology and Oncology (ASTRO): [https://www.astro.org/ASTRO/media/ASTRO/News%20and%20Publications/ASTRONews/2024-ASTRONews-Spring-\(Digital\).pdf](https://www.astro.org/ASTRO/media/ASTRO/News%20and%20Publications/ASTRONews/2024-ASTRONews-Spring-(Digital).pdf)

Non-Cancerous Conditions. (2023). Retrieved 7 2025, from Evolent: <https://www1.radmd.com/sites/default/files/2024-07/Non-Cancerous%20Conditions%20RadOnc%202024.pdf>

Non-Oncological Radiotherapy: A Review of Modern Approaches. (2022, 9). Retrieved 6 2025, from Personalized and Precision Medicine: <https://www.mdpi.com/2075-4426/12/10/1677>

Provider Manual. (2025). Retrieved 7 2025, from DMAS: <https://www.dmas.virginia.gov/for-providers/>

Radiation Therapy for Benign Conditions. (2024, 9). Retrieved 7 2025, from OncoLink: <https://www.oncolink.org/risk-and-prevention/medications-health-history-and-cancer-risk/radiation-therapy-for-benign-conditions>

Treatment and prognosis of Graves disease in children and adolescents. (2025, 3). Retrieved 7 2025, from UpToDate 2: https://www.uptodate.com/contents/treatment-and-prognosis-of-graves-disease-in-children-and-adolescents?search=Hyperthyroidism%20treatment%20radiation&source=search_result&selectedTitle=12~150&usage_type=default&display_rank=12

Unicentric Castleman disease. (2025, 5). Retrieved 7 2025, from UpToDate 3: https://www.uptodate.com/contents/unicentric-castleman-disease?search=Castleman%27s%20disease%20radiation&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1

Stereotactic Radiosurgery for Arteriovenous Malformations and Intracranial Tumors. (2013). Retrieved 7 2025, from Hayes: <https://evidence.hayesinc.com/report/dir.ster0005>

International evidence-based consensus diagnostic and treatment guidelines for unicentric Castleman disease. (2020). Retrieved 7 2025, from American Society of Hematology (ASH): <https://ashpublications.org/bloodadvances/article/4/23/6039/474413/International-evidence-based-consensus-diagnostic?searchresult=1>

The Use of Low-Dose Radiation Therapy in Osteoarthritis: A Review. (2022). Retrieved 7 2025, from American Society for Therapeutic Radiology and Oncology (ASTRO): [https://www.redjournal.org/article/S0360-3016\(22\)00357-1/fulltext#tbl0002](https://www.redjournal.org/article/S0360-3016(22)00357-1/fulltext#tbl0002)

Orbital Radiation for Thyroid Eye Disease. (2022). Retrieved 7 2025, from American Academy of Ophthalmology (AAO): [https://www.aajournal.org/article/S0161-6420\(21\)00827-7/fulltext](https://www.aajournal.org/article/S0161-6420(21)00827-7/fulltext)

Heterotopic Ossification of the Hip. (2025). Retrieved 7 2025, from American Academy of Orthopaedic Surgeons: <https://orthoinfo.aaos.org/en/diseases--conditions/heterotopic-ossification-of-the-hip/>

Treating Peyronie's Disease (2025). Retrieved 7 2025, from US department of Affairs: <https://www.veteranshealthlibrary.va.gov/3,83017>

Pigmented villonodular synovitis (PVNS). (2020). Retrieved 7 2025, from American Academy of Orthopaedic Surgeons: <https://orthoinfo.aaos.org/en/diseases--conditions/pigmented-villonodular-synovitis/>

Hoveidaei, A., Karimi, M., Salmannezhad, A., Tavakoli, Y., Taghavi, S. P., & Hoveidaei, A. H. (2025). Low-dose Radiation Therapy (LDRT) in Managing Osteoarthritis: A Comprehensive Review. *Current Therapeutic Research, clinical and experimental*, 102, 100777. Retrieved 8.12.2025. <https://doi.org/10.1016/j.curtheres.2025.100777>

PubMed - The Use of Low-Dose Radiation Therapy in Osteoarthritis: A Review. Dove, Austin P.H. et al. *International Journal of Radiation Oncology, Biology, Physics*, Volume 114, Issue 2, 203 – 220. (2022). [https://www.redjournal.org/article/S0360-3016\(22\)00357-1/fulltext](https://www.redjournal.org/article/S0360-3016(22)00357-1/fulltext)

van den Ende, C. H. M., Minten, M. J. M., Leseman-Hoogenboom, M. M., van den Hoogen, F. H. J., den Broeder, A. A., Mahler, E. A. M., & Poortmans, P. M. P. (2020). Long-term efficacy of low-dose radiation therapy on symptoms in patients with knee and hand osteoarthritis: follow-up results of two parallel randomized, sham-controlled trials. *The Lancet. Rheumatology*, 2(1), e42–e49. Retrieved 8.12.2025. [https://doi.org/10.1016/S2665-9913\(19\)30096-7](https://doi.org/10.1016/S2665-9913(19)30096-7)

PubMed. Dove, A., Cmelak, A., Darrow, K., McComas, K., Chowdhary, M., Beckta, J., Kirshner, A. The Use of Low-Dose Radiation Therapy in Osteoarthritis: A Review. *International Journal of Radiation Oncology, Biology, Physics. ASTRO. Critical Review*. Volume 114, Issue 2p203-220.1.2022. Retrieved 8.12.2025. [https://www.redjournal.org/article/S0360-3016\(22\)00357-1/fulltext](https://www.redjournal.org/article/S0360-3016(22)00357-1/fulltext)

Álvarez, B., Montero, A., Valero, J., López, M., Ciérvide, R., Hernando, O., Sánchez, E., de la Casa, M. A., Chen-Zhao, X., García-Aranda, M., Martínez, A., Alonso, R., Sánchez, M., Fernández-Letón, P., & Rubio, C. (2025). Implementing a low-dose radiation therapy program for musculoskeletal pain disorders: tips, tricks, and essentials for clinical researchers. *Clinical & translational oncology : official publication of the Federation of Spanish Oncology Societies and of the National Cancer Institute of Mexico*, 10.1007/s12094-025-03936-8. Advance online publication. Retrieved 8.12.2025. <https://doi.org/10.1007/s12094-025-03936-8>

Lumniczky, K., Impens, N., Armengol, G., Candéias, S., Georgakilas, A. G., Hornhardt, S., Martin, O. A., Rödel, F., & Schaeue, D. (2021). Low dose ionizing radiation effects on the immune system. *Environment international*, 149, 106212. Retrieved 8.12.2025. <https://doi.org/10.1016/j.envint.2020.106212>

Weissman, T., Rucket, M., Zhou, J., Seeling, M., Lettmainer, S., Donaubuer, A., Nimmerjahn, F., Ott, O., Hecht, M., Putz, F., Fietkau, R., Frey, B., Gaip, U., Deloach, L. Low-Dose Radiotherapy Leads to a Systemic Anti-Inflammatory Shift in the Pre-Clinical K/BxN Serum Transfer Model and Reduces Osteoarthritic Pain in Patients. *Frontiers In Immunology*. 1.2.2022. Volume 12. <https://doi.org/10.3389/fimmu.2021.777792>

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