

Medical Policy: Radiofrequency Ablation of Tumors



| POLICY NUMBER | EFFECTIVE DATE | APPROVED BY |
|---------------|----------------|--------------------------------|
| MG.MM.SU.52 | 5/9/2025 | MPC (Medical Policy Committee) |

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Definition

Radiofrequency ablation is a technique of heating cells using a small needle electrode placed directly into a tumor. High frequency radio waves heat the tumor and cause local necrosis. The dead cells become scar tissue and eventually shrink.

Guideline

Members are eligible for RFA for the following indications:

- Bone pain secondary to cancer as an interventional or palliative pain management strategy
- Distant metastatic lesions of medullary thyroid carcinoma
- Gastro-intestinal stromal tumors with limited progression in a single metastatic site
- Non-small cell lung cancer (NSCLC) — medically inoperable/member unable to tolerate surgery:
 - Treatment of stage 1A peripheral tumors (defined as ≤ 3 cm)
 - Symptomatic airway obstruction as a means to improve quality of life
- Osteoid osteoma — as less invasive alternative to surgical resection
- Renal tumors — small (≤ 4 cm in diameter) suspected to be malignant or with malignant potential
- Symptomatic soft tissue sarcoma — disseminated metastases
- Liver tumors — medically inoperable/member unable to tolerate surgery*

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- Primary malignancy — hepatocellular carcinoma (HCC)
- Metastatic; site of origin/type:
 - colorectal carcinoma
 - neuroendocrine
 - ocular melanoma
- Unresectable intra-hepatic cholangiocarcinoma

*Utilization: Radiofrequency ablation may be considered medically necessary when as a sole curative treatment for lesions ≤ 3 cm or as to prolong survival when combined with arterial therapy (e.g., chemoembolization, radioembolization with yttrium -90 microspheres) for lesions 3–5 cm.

- Uterine sarcoma — resectable isolated metastases as alternative to surgical resection

Limitations/Exclusions

Ablation requests for indications other than those listed above are case-by-case reviewed upon receipt of clinical documentation substantiating medical necessity.

Radiofrequency ablation is not considered medically necessary for benign/malignant tumors per below, as there is insufficient evidence of therapeutic value (list not meant to be all-inclusive):

- Benign thyroid nodules
- Breast tumors
- Brunner's gland hyperplasia
- Chondroblastoma
- Gallbladder cancer
- Gastro-intestinal stromal tumors; multiple metastatic sites
- Hepatic metastases from non-colonic primary cancers or those > 5 cm
- Malignant bile duct obstruction
- Pancreatic cancer
- Non-metastatic desmoid tumors

Procedure Codes

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| 20982 | Ablation therapy for reduction or eradication of 1 or more bone tumors (eg, metastasis) including adjacent soft tissue when involved by tumor extension, percutaneous, including imaging guidance when performed; radiofrequency |
| 32998 | Ablation therapy for reduction or eradication of 1 or more pulmonary tumor(s) including pleura or chest wall when involved by tumor extension, percutaneous, including imaging guidance when performed, unilateral; radiofrequency |
| 47370 | Laparoscopy, surgical, ablation of one or more liver tumor(s); radiofrequency |
| 47380 | Ablation, open, of one or more liver tumor(s); radiofrequency |
| 47382 | Ablation, one or more liver tumor(s), percutaneous, radiofrequency |
| 50542 | Laparoscopy, surgical; ablation of renal mass lesion(s), including intraoperative ultrasound guidance and monitoring, when performed [when specified as radiofrequency ablation] |
| 50592 | Ablation, 1 or more renal tumor(s), percutaneous, unilateral, radiofrequency |

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| 53852 | Transurethral destruction of prostate tissue; by radiofrequency thermotherapy |
| 53854 | Transurethral destruction of prostate tissue; by radiofrequency generated water vapor thermotherapy |
| 77013 | Computerized tomography guidance for; and monitoring of, parenchymal tissue ablation |
| 77022 | Magnetic resonance guidance for, and monitoring of, parenchymal tissue ablation |
| 76940 | Ultrasound guidance for, monitoring of tissue ablation |

Diagnosis Codes

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| C22.0 | Liver cell carcinoma |
| C22.2 | Hepatoblastoma |
| C22.3 | Angiosarcoma of liver |
| C22.7 | Other specified carcinomas of liver |
| C22.8 | Malignant neoplasm of liver, primary, unspecified as to type |
| C22.9 | Malignant neoplasm of liver, not specified as primary or secondary |
| C33 | Malignant neoplasm of trachea |
| C34.00 | Malignant neoplasm of unspecified main bronchus |
| C34.01 | Malignant neoplasm of right main bronchus |
| C34.02 | Malignant neoplasm of left main bronchus |
| C34.10 | Malignant neoplasm of upper lobe, unspecified bronchus or lung |
| C34.11 | Malignant neoplasm of upper lobe, right bronchus or lung |
| C34.12 | Malignant neoplasm of upper lobe, left bronchus or lung |
| C34.2 | Malignant neoplasm of middle lobe, bronchus or lung |
| C34.30 | Malignant neoplasm of lower lobe, unspecified bronchus or lung |
| C34.31 | Malignant neoplasm of lower lobe, right bronchus or lung |
| C34.32 | Malignant neoplasm of lower lobe, left bronchus or lung |
| C34.80 | Malignant neoplasm of overlapping sites of unspecified bronchus and lung |
| C34.81 | Malignant neoplasm of overlapping sites of right bronchus and lung |
| C34.82 | Malignant neoplasm of overlapping sites of left bronchus and lung |
| C34.90 | Malignant neoplasm of unspecified part of unspecified bronchus or lung |
| C34.91 | Malignant neoplasm of unspecified part of right bronchus or lung |
| C34.92 | Malignant neoplasm of unspecified part of left bronchus or lung |
| C49.10 | Malignant neoplasm of connective and soft tissue of unspecified upper limb, including shoulder |
| C49.11 | Malignant neoplasm of connective and soft tissue of right upper limb, including shoulder |
| C49.12 | Malignant neoplasm of connective and soft tissue of left upper limb, including shoulder |
| C49.20 | Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip |

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| C49.21 | Malignant neoplasm of connective and soft tissue of right lower limb, including hip |
| C49.22 | Malignant neoplasm of connective and soft tissue of left lower limb, including hip |
| C49.6 | Malignant neoplasm of connective and soft tissue of trunk, unspecified |
| C49.8 | Malignant neoplasm of overlapping sites of connective and soft tissue |
| C49.9 | Malignant neoplasm of connective and soft tissue, unspecified |
| C49.A0 | Gastrointestinal stromal tumor, unspecified site |
| C49.A1 | Gastrointestinal stromal tumor of esophagus |
| C49.A2 | Gastrointestinal stromal tumor of stomach |
| C49.A3 | Gastrointestinal stromal tumor of small intestine |
| C49.A4 | Gastrointestinal stromal tumor of large intestine |
| C49.A5 | Gastrointestinal stromal tumor of rectum |
| C49.A9 | Gastrointestinal stromal tumor of other sites |
| C64.1 | Malignant neoplasm of right kidney, except renal pelvis |
| C64.2 | Malignant neoplasm of left kidney, except renal pelvis |
| C64.9 | Malignant neoplasm of unspecified kidney, except renal pelvis |
| C78.00 | Secondary malignant neoplasm of unspecified lung |
| C78.01 | Secondary malignant neoplasm of right lung |
| C78.02 | Secondary malignant neoplasm of left lung |
| C78.2 | Secondary malignant neoplasm of pleura |
| C78.5 | Secondary malignant neoplasm of large intestine and rectum |
| C78.7 | Secondary malignant neoplasm of liver and intrahepatic bile duct |
| C79.51 | Secondary malignant neoplasm of bone |
| C79.52 | Secondary malignant neoplasm of bone marrow |
| C79.89 | Secondary malignant neoplasm of other specified sites |
| C79.9 | Secondary malignant neoplasm of unspecified site |
| C7B.00 | Secondary carcinoid tumors, unspecified site |
| C7B.00 | Secondary carcinoid tumors, unspecified site |
| C7B.01 | Secondary carcinoid tumors of distant lymph nodes |
| C7B.02 | Secondary carcinoid tumors of liver |
| C7B.03 | Secondary carcinoid tumors of bone |
| C7B.04 | Secondary carcinoid tumors of peritoneum |
| C7B.09 | Secondary carcinoid tumors of other sites |
| C7B.1 | Secondary Merkel cell carcinoma |
| C7B.8 | Other secondary neuroendocrine tumors |
| D37.6 | Neoplasm of uncertain behavior of liver, gallbladder and bile ducts |
| D41.00 | Neoplasm of uncertain behavior of unspecified kidney |
| D41.01 | Neoplasm of uncertain behavior of right kidney |

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| D41.02 | Neoplasm of uncertain behavior of left kidney |
| D48.1 | Neoplasm of uncertain behavior of connective and other soft tissue |
| D49.0 | Neoplasm of unspecified behavior of digestive system |
| D49.51 | Neoplasm of unspecified behavior of kidney |
| D49.511 | Neoplasm of unspecified behavior of right kidney |
| D49.512 | Neoplasm of unspecified behavior of left kidney |
| D49.519 | Neoplasm of unspecified behavior of unspecified kidney |
| D49.59 | Neoplasm of unspecified behavior of other genitourinary organ |
| G89.3 | Neoplasm related pain (acute) (chronic) |

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Specialty matched clinical peer review.

Revision History

| DATE | REVISION |
|-----------|---|
| 5/9/2025 | Added non-metastatic desmoid tumors to investigational list |
| 5/10/2019 | Added unresectable intra-hepatic cholangiocarcinoma to list of liver tumors |