

## Embolization Treatments, Surgical 235

### Table of Content

- [Description & Definitions:](#)
- [Criteria](#)
- [Document History](#)
- [Coding](#)
- [Policy Approach and Special Notes](#)
- [References](#)
- [Keywords](#)

<u>Effective Date</u>	5/1/2026
<u>Next Review Date</u>	1/2027
<u>Coverage Policy</u>	Surgical 235
<u>Version</u>	4

**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:

**Genicular Artery Embolization (GAE)** is a minimally invasive procedure by reducing the blood flow and inflammation to the areas around the knee. Capsular Plication is an arthroscopic procedure to provide a suture and retensioning the ligaments around the joint for greater stability.

**Hemorrhoid Artery Embolization (HAE)** is a minimally invasive procedure, performed by an interventional radiologist, to treat hemorrhoids without surgery. HAE uses the femoral or radial artery approach to access and block the arteries blood supply to the hemorrhoids.

**Ovarian Vein Embolization** is a procedure used to help resolve a painful condition called pelvic congestion syndrome.

**Plantar Fasciitis Embolization (PFE)** is a minimally invasive procedure which uses a catheter into the blood vessels to inject microparticles to block blood flow to an area and reducing pain.

**Varicocele embolization** is a procedure used to block blood flow in a painful enlarged vein in a man's scrotum.

**Transarterial Embolization therapies** include, Transarterial Chemo Embolization (TACE), Transarterial Embolization (TAE) and Drug-Eluting Beads Transarterial Chemotherapy Embolization (DEB-TACE). These involve the insertion of a catheter directly in the artery and use of agents to inhibit and block the blood flow supplying the tumor. This can be done with or without, chemotherapy, drug-eluting beads or RE microspheres.

**Shoulder Adhesive Capsulitis Embolization** - targets the underlying inflammatory process through reduction of neo-angiogenesis and nerve stimulation, TAE aims to achieve meaningful pain relief

## Criteria:

**Embolization** is medically necessary for **1 or more** of the following:

- **Genicular Artery Embolization (GAE)** is medically necessary for **1 or more** of the following:
  - Knee hemarthrosis following total knee arthroplasty for **ALL** of the following:
    - Failed Conservative Therapy and **1 or more** of the following:
      - Ice
      - Immobilization
      - Compression
      - Saline lavage
      - Corticosteroid instillation
      - Selective COX-2 inhibitors
    - Demonstrated synovial hyper-vascularity on angiography
  - Reduce tumor vascularity about the knee preoperatively in preparation for tumor resection about the knee
  - Reduce tumor bulk in inoperable cases of tumors around the knee
- **Ovarian Vein Embolization** is considered medically necessary for pelvic congestion syndrome (PCS) with **ALL** of the following:
  - Individual with a definitive diagnostic venography, computerized tomography (CT) scan, or Magnetic resonance imaging (MRI)
  - Individual with failed trial of appropriate pharmacotherapy
- **Varicocele Embolization** (balloon or metallic coil) for the treatment a varicocele in a male with **1 or more** of the following:
  - Individual with recurrence of varicoceles post surgical (ligation)
  - Individual is an adolescent with grade 2 or 3 varicocele related to ipsilateral testicular growth restriction
  - Individual with scrotal pain associated with varicoceles
  - Individual with infertility problems with **ALL** of the following:
    - Lower sperm concentration
    - Decreased sperm motility
- **Transarterial Embolization Direct Therapies (TAE, TACE and DEB-TACE)** are considered medically necessary for **1 or more** of the following indications:
  - Neuroendocrine tumors for individuals with **1 more of the following**:
    - Neuroendocrine tumors (carcinoid tumors, pancreatic tumors) with hepatic metastases when systemic therapy has failed to control symptoms such as carcinoid syndrome (debilitating flushing, wheezing, and diarrhea)
    - Symptoms from non-carcinoid neuroendocrine tumors with hepatic metastases (hypoglycemia, severe diabetes, Zollinger-Ellison Syndrome)
    - Symptoms due to hepatic tumor bulk (pain)
  - Hepatocellular Carcinoma or Bridge to Liver Transplantation for individuals for **1 more of the following**:
    - As primary treatment for surgically unresectable primary hepatocellular carcinoma (HCC)
    - As a palliative treatment for unresectable hepatocellular carcinoma when there are significant symptoms (e.g., pain) related to tumor bulk
    - As a bridge to liver transplantation
  - Metastatic Disease of the Liver for individuals for **1 more of the following**:
    - Palliative treatment for symptoms from metastatic disease of the liver related to tumor bulk (pain)
    - Treatment for liver-only metastasis from uveal melanoma
- **Embolization for shoulder joint pathology** is considered medically necessary for **1 or more** of the following:
  - Individuals with hemarthrosis
  - Individuals with adhesive capsulitis (frozen shoulder) with **ALL** of the following:
    - Physical exam consistent with adhesive capsulitis
    - Plain X-ray excludes other diagnosis
    - Failure of  $\geq 3$  months of conservative therapy as evidence by **1 or more** of the following:
      - topical or oral anti-inflammatory medications
      - steroid injection
      - physical therapy/ home exercise program

**Genicular Artery Embolization (GAE)** is considered **not medically necessary** for any use other than those indicated in clinical criteria, to include but not limited to:

- for the treatment of osteoarthritis-related knee pain

**Hemorrhoid Artery Embolization (HAE):** Current role remains uncertain, based on review of existing evidence, there are currently no clinical indications for this technology. Therefore, not medically necessary for any clinical indications.

**Ovarian Vein Embolization** is considered not medically necessary for any use other than those indicated in clinical criteria.

**Plantar Fasciitis Embolization (PFE):** Current role remains uncertain, based on review of existing evidence, there are currently no clinical indications for this technology. Therefore, not medically necessary for any clinical indications.

**Varicocele Embolization** is considered not medically necessary for any use other than those indicated in clinical criteria.

**Transarterial Embolization Direct Therapies** including Transarterial Chemo Embolization (TACE), Transarterial Embolization (TAE) and Drug-Eluting Beads Transarterial Chemotherapy Embolization (DEB-TACE) are considered **not medically necessary** for the following contraindications:

- Ascites
- Aspartate aminotransferase >100 unit/L
- Cardiac or renal insufficiency
- For individuals with any of the following conditions:
  - Biliary obstruction
  - Breast cancer
  - Cervical cancer
  - Colon cancer
  - Down staging therapy to reduce tumor burden for liver cancer
  - Encephalopathy
  - Liver metastases from other non-neuroendocrine primaries (e.g., colon cancer, melanoma, or unknown primaries)
  - Palliative treatment of either primary or secondary malignant disease of the liver that is not associated with a specific liver-related symptom
  - Portal vein thrombosis
  - Rhabdomyosarcoma
  - Unknown primary tumors
- Lactate dehydrogenase >425 unit/L
- Leiomyosarcoma
- Recent variceal bleed
- Serum bilirubin >3 mg/dL
- Significant thrombocytopenia
- Tumor burden involving >50 percent of the liver

There is insufficient scientific evidence to support the medical necessity of Transarterial Embolization Direct Therapies - Transarterial Chemo Embolization (TACE), Transarterial Embolization (TAE) and Drug-Eluting Beads Transarterial Chemotherapy Embolization (DEB-TACE) for uses other than those listed in the clinical indications for procedure section.

**Embolization for shoulder joint pathology** is considered not medically necessary for any use other than those indicated in clinical criteria.

## Document History:

Revised Dates:

- 2026: Jan – Implementation date of May 1, 2026. Merge Medical 139. Add criteria for Shoulder Embolization.

Reviewed Dates:

Origination Date: 2025: Jan – Combined New Tech - Plantar Fasciitis Embolization (PFE), Medical 342 - Genicular Artery Embolization (GAE), Surgical 202 - Ovarian Vein Embolization, and Surgical 209 -Varicocele Embolization

## Coding:

### Medically necessary with criteria:

Coding	Description
37241	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; venous, other than hemorrhage (eg, congenital or acquired venous malformations, venous and capillary hemangiomas, varices, varicoceles)
37242	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; arterial, other than hemorrhage or tumor (eg, congenital or acquired arterial malformations, arteriovenous malformations, arteriovenous fistulas, aneurysms)
37243	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for tumors, organ ischemia, or infarction
37244	Vascular embolization or occlusion, inclusive of all radiological supervision and interpretation, intraprocedural roadmapping, and imaging guidance necessary to complete the intervention; for arterial or venous hemorrhage or lymphatic extravasation
75894	Transcatheter therapy, embolization, any method, radiological supervision and interpretation

### Considered Not Medically Necessary:

Coding	Description
28899	unlisted procedure, foot or toes

*The preceding codes for treatments and procedures applicable to this policy are included above for informational purposes only. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy.*

## Policy Approach and Special Notes: \*

- Coverage
  - See the appropriate benefit document for specific coverage determination. Member specific benefits take precedence over medical policy.
  - Refer to OncoHealth for CANCER DIAGNOSIS.
- Application to products
  - Policy is applicable to Sentara Health Plan Medicaid products.
- 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:

**References used include but are not limited to the following:** Specialty Association Guidelines; Government Regulations; Winifred S. Hayes, Inc; UpToDate; Literature Review; Specialty Advisors; National Coverage Determination (NCD); Local Coverage Determination (LCD).

(2025). Retrieved 12 2025, from MCG: <https://careweb.careguidelines.com/ed29/index.html>

NCD Therapeutic Embolization (20.28). (Long standing). Retrieved 12 2025, from CMS: <https://www.cms.gov/medicare-coverage-database/view/ncd.aspx?ncdid=52&ncdver=1&keywordtype=starts&keyword=Embolization&bc=0>

Peripheral Vascular Intervention Guidelines. (2025). Retrieved 12 2025, from Cigna - EviCore: [https://www.evicore.com/sites/default/files/clinical-guidelines/2025-09/Cigna\\_Peripheral%20Vascular%20Intervention%20Guidelines\\_V2.0.2025\\_Eff10.01.2025\\_pub07.01.2025\\_upd09.30.2025.pdf](https://www.evicore.com/sites/default/files/clinical-guidelines/2025-09/Cigna_Peripheral%20Vascular%20Intervention%20Guidelines_V2.0.2025_Eff10.01.2025_pub07.01.2025_upd09.30.2025.pdf)

Plantar fasciitis. (2025). Retrieved 12 2025, from UpToDate: <https://www.uptodate.com/contents/plantar-fasciitis?csi=8f41ba27-c921-4613-a01b-7f38c6b9ae29&source=contentShare>

Plantar Fasciitis Embolization (PFE) & Genicular Artery Embolization (GAE). (2025, 12). Retrieved 12 2025, from Advanced Vascular Centers: [https://advancedvascularcenters.com/procedures/plantar-fasciitis-embolization-pfe/#:~:text=What%20is%20Plantar%20Fasciitis%20Embolization%20\(PFE\)%3F,and%20pain%20in%20the%20heel.](https://advancedvascularcenters.com/procedures/plantar-fasciitis-embolization-pfe/#:~:text=What%20is%20Plantar%20Fasciitis%20Embolization%20(PFE)%3F,and%20pain%20in%20the%20heel.)

Plantar Fasciitis Embolization (PFE) & Genicular Artery Embolization (GAE). (2025). Retrieved 12 2025, from Society for Vascular Surgery (SVS): <https://vascular.org/search?search=Genicular>

Research Reporting Standards for Genicular Artery Embolization. (2024). Retrieved 12 2025, from Journal of Vascular and Interventional Radiology (JVIR) - Society of Interventional Radiology (SIR) Technology: [https://www.jvir.org/article/S1051-0443\(24\)00323-3/fulltext](https://www.jvir.org/article/S1051-0443(24)00323-3/fulltext)

(2025). Retrieved 12 2025, from Hayes:

<https://evidence.hayesinc.com/search?q=%257B%2522text%2522:%2522Transarterial%2520Embolization%2520Direct%2520Therapies%2522,%2522title%2522:null,%2522termsource%2522:%2522searchbar%2522,%2522page%2522:%25257B%2522page%2522:0,%2522size%2522:50%257D,%2522typ>

(2025). Retrieved 12 2025, from DMAS: <https://dmas.virginia.gov/for-providers/rates-and-rate-setting/procedure-fee-files-cpt-codes/#searchCPT>

(2025). Retrieved 12 2025, from Cigna - EviCore: [https://www.evicore.com/sites/default/files/clinical-guidelines/2025-09/Cigna\\_Peripheral%20Vascular%20Intervention%20Guidelines\\_V2.0.2025\\_Eff10.01.2025\\_pub07.01.2025\\_upd09.30.2025.pdf](https://www.evicore.com/sites/default/files/clinical-guidelines/2025-09/Cigna_Peripheral%20Vascular%20Intervention%20Guidelines_V2.0.2025_Eff10.01.2025_pub07.01.2025_upd09.30.2025.pdf)

Embolization. (2023). Retrieved 12 2025, from Journal of Vascular Interventional Radiology: <https://www.jvir.org/action/doSearch?type=quicksearch&text1=Embolization&field1=AllField&startPage=2&pageSize=25>

Hepatoblastoma. (2025). Retrieved 12 2025, from UpToDate: <https://www.uptodate.com/contents/overview-of-hepatoblastoma?csi=11c2a258-16a0-48be-aef7-a2931c3721dd&source=contentShare#H623589925>

Transarterial chemoembolization: Modalities, indication, and patient selection. (2015, 5). Retrieved 12 2025, from Journal of Hepatology: [https://www.journal-of-hepatology.eu/article/S0168-8278\(15\)00084-7/fulltext#:~:text=Transarterial%20chemoembolization%20\(TACE\)%20is%20the%20recommended%20treatment%20modality%20for%20asymptomatic,patients%20with%20intermediate%20stage%20HCC.](https://www.journal-of-hepatology.eu/article/S0168-8278(15)00084-7/fulltext#:~:text=Transarterial%20chemoembolization%20(TACE)%20is%20the%20recommended%20treatment%20modality%20for%20asymptomatic,patients%20with%20intermediate%20stage%20HCC.)

## Keywords:

Embolization, Genicular Artery, GAE, Ovarian Vein, pelvic congestion syndrome, PCS, Varicocele, Plantar Fasciitis, PFE, Hemorrhoid artery, HAE, knee pain,