04-70450-09

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Reviewed: 03/27/25

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Subject: Computed Tomography Angiography (CTA) Lower Extremity

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DESCRIPTION:

Computed tomography angiography (CTA) is an imaging procedure performed for characterizing vascular anatomy, diagnosing vascular diseases, planning treatment for vascular disease and assessing the effectiveness of vascular treatment. CTA may be performed with or without contrast material.

Summary and Analysis of Evidence: Body computed tomography angiography (CTA) is a method for characterizing vascular anatomy, diagnosing vascular diseases, planning treatment for vascular diseases, and assessing the effectiveness of vascular treatment. (ACR-NASCI-SIR-SPR, 2021) With the advent of multidetector computed tomography (CT), CT angiography (CTA) has gained widespread popularity for noninvasive imaging of the arterial vasculature. Peripheral extremity CTA can nowadays be performed rapidly with high spatial resolution and a decreased amount of both intravenous contrast and radiation exposure. In patients with peripheral artery disease (PAD), this technique can be used to delineate the bilateral lower extremity arterial tree and to determine the amount of atherosclerotic disease while differentiating between acute and chronic changes (Shwaiki, et al., 2021).

POSITION STATEMENT:

Computed tomography angiography (CTA) of the lower extremity **meets the definition of medical necessity** for the following indications:

- Critical limb ischemia for any of the following:
  - Ischemic rest pain
  - Tissue loss

    - Gangrene.
- Claudication with abnormal (ankle/brachial index, arterial Doppler).
- Clinical concern for vascular cause of ulcers with abnormal or indeterminate ultrasound, ankle/brachial index, arterial Doppler.
- After stenting or surgery with signs of recurrent symptoms or abnormal ankle/brachial index; abnormal or indeterminate arterial Doppler or pulse volume recording.

Popliteal artery entrapment syndrome

Deep venous thrombosis (DVT) (with clinical suspicion of lower extremity DVT after abnormal or non-diagnostic ultrasound where a positive study would change management)

Clinical suspicion of vascular disease (with abnormal or indeterminate ultrasound or other imaging)

- Tumor invasion
- Trauma
- Vasculitis
- Aneurysm
- Stenosis/occlusions.

Hemodialysis graft dysfunction (after Doppler ultrasound)

Vascular malformation

Traumatic injuries (with clinical findings suggestive of arterial injury)

Assessment/evaluation of known vascular disease/condition

Pre-operative/procedural evaluation

- Pre-operative evaluation of known vasculasar disease/condition.

Post-operative/procedural evaluation

- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention or surgery. Documentation required.

BILLING/CODING INFORMATION:

CPT Coding:

73706	Computed tomographic angiography, lower extremity, with contrast material(s), including noncontrast images, if performed, and image postprocessing

REIMBURSEMENT INFORMATION:

Refer to section entitled **POSITION STATEMENT**.

Re-imaging or additional imaging due to poor contrast enhanced exam or technically limited exam is the responsibility of the imaging provider.

LOINC Codes:

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, plan of treatment and reason for computed tomography angiography (CTA) of the lower extremity.

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician progress note	18741-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Plan of treatment	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology reason for study	18785-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study-date and time	18779-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study observation	18834-2	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-study observation	18782-3	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-impression	19005-8	18805-2	Include all data of the selected type that represents observations made six

			months or fewer before starting date of service for the claim
Radiology study-recommendation (narrative)	18783-1	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

PROGRAM EXCEPTIONS:

Federal Employee Plan (FEP): Follow FEP guidelines.

Medicare Advantage products: No Local Coverage Determination (LCD) were found at the time of the last guideline reviewed date.

The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date: Computed Tomography (220.1), located at cms.gov.

If this Medical Coverage Guideline contains a step therapy requirement, in compliance with Florida law 627.42393, members or providers may request a step therapy protocol exemption to this requirement if based on medical necessity. The process for requesting a protocol exemption can be found at Coverage Protocol Exemption Request.

DEFINITIONS:

No guideline specific definitions apply.

RELATED GUIDELINES:

Computed Tomography Angiography (CTA) Abdomen and Pelvis, 04-70450-04
Computed Tomography Angiography (CTA) Brain (Head), 04-70450-05
Computed Tomography Angiography (CTA) Chest (non coronary), 04-70450-07
Computed Tomography Angiography (CTA) Neck, 04-70450-06
Computed Tomography Angiography (CTA) Upper Extremity, 04-70450-08

OTHER:

None applicable.

REFERENCES:

1. American College of Radiology ACR Appropriateness Criteria® Soft-Tissue Masses, Revised 2017.
2. American College of Radiology ACR Appropriateness Criteria® Sudden Onset of Cold, Painful Leg, 2016.
3. American College of Radiology ACR Appropriateness Criteria® Suspected Lower Extremity Deep Vein Thrombosis, Revised 2018.
4. American College of Radiology ACR Appropriateness Criteria® Vascular Claudication–Assessment for Revascularization, Revised 2016.

5. ACR-NASCI-SIR-SPR Practice Guideline for the Performance and Interpretation of Body Computed Tomography Angiography (CTA), Revised 2021.
6. Expert Panel on Vascular Imaging, Obara P, McCool J, Kalva SP, et al. ACR Appropriateness Criteria® Clinically Suspected Vascular Malformation of the Extremities. J Am Coll Radiol. 2019 Nov;16(11S):S340-S347.
7. Kock MC, Dijkshoorn ML, Pattynama PM et al. Multi-detector row computed tomography angiography of peripheral arterial disease. European Radiology 2007; 17(12): 208-222.
8. Lopera JE, Trimmer CK, Josephs SG et al. Multidetector CT angiography of infrainguinal arterial bypass. Radiographics 2008; 28(2): 529-548.
9. Murphy EA, Ross RA, Jones RG, et al. Imaging in vascular access. Cardiovasc Eng Technol. 2017; 8(3): 255–272.
10. Met R, Bipat S, Legemate DA et al. Diagnostic performance of computed tomography angiography in peripheral arterial disease: a systematic review and meta-analysis. JAMA 2009; 301(4): 415-424.
11. Shwaiki O, Rashwan B, Fink MA, et al. Lower extremity CT angiography in peripheral arterial disease: from the established approach to evolving technical developments. Int J Cardiovasc Imaging. 2021 Oct;37(10):3101-3114. [Abstract]

COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy and Coverage Committee on 03/27/25.

GUIDELINE UPDATE INFORMATION:

06/15/15	New Medical Coverage Guideline.
04/15/18	Revision; revised position statement. Updated references.
08/15/20	Review/revision. Revised and expanded criteria for vascular disease/condition. Added indication and criteria for: popliteal artery entrapment syndrome, deep venous thrombosis (DVT), vascular disease, hemodialysis graft dysfunction and traumatic injuries. Revised criteria for post-operative/procedural evaluation. Updated references.
05/15/22	Review/revision. Expanded vascular disease criteria. Revised traumatic injuries criteria. Added vascular malformation. Updated references.
07/01/22	Revision to Program Exceptions section.
09/30/23	Review: position statements and references updated.
04/15/24	Review; no change in position statement. Updated program exception and references.
04/15/25	Review; no change in position statement.