

<b>National Imaging Associates, Inc.*</b>	
<b>Clinical guidelines:</b> <b>ABDOMINAL ARTERIES CTA <u>(Angiography)</u></b>	<b>Original Date: July 2008</b>
<b>CPT Codes: 75635</b>	<b>Last Revised Date: April 2021</b>
<b>Guideline Number: NIA_CG_035</b>	<b>Implementation Date: January 2022</b>

### IMPORTANT NOTE

**Only one authorization request is required, using CPT Code 75635 Abdominal Arteries CTA with run-off.** This study provides for imaging of the abdomen, pelvis, and both legs and is the noninvasive equivalent to an “aortogram and run-off”.

### INDICATIONS FOR ABDOMINAL ARTERIES CTA with run-off

For evaluation of a vascular abnormality ~~seen on previous imaging~~ in the abdominal aorta and ~~lower extremities/or legs~~.

For evaluation of known or suspected abdominal, pelvic, or peripheral vascular disease (ACR, 2016; Ahmed, 2017, Conte, 2015, Werncke, 2015)

- ~~Without critical ischemic changes doppler ultrasound should be indeterminate or inconclusive~~
- For known or suspected peripheral arterial disease (such as with claudication, or clinical concern for vascular causes of ulcers) when non-invasive studies (pulse volume recording, ankle-brachial index, toe brachial index, segmental pressures, or doppler ultrasound) are abnormal or equivocal.
- For critical limb ischemia with **ANY** of the below clinical signs of peripheral artery disease. Ultrasound imaging is **not** needed. If done and negative, it should still be approved due to a high false negative rate (Shishehbor, 2016; Weiss, 2018)
  - Ischemic rest pain
  - Tissue loss
  - Gangrene
- ~~Clinical concern for vascular cause of ulcers with abnormal or indeterminate ultrasound (ankle/brachial index, arterial Doppler) (Rosyd, 2017)~~

### Pre-operative evaluation

- Evaluation of interventional vascular procedures for luminal patency versus restenosis due to conditions such as atherosclerosis, thromboembolism, and intimal hyperplasia.

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### Post-operative or post-procedural evaluation

- Evaluation of post-operative complications, e.g., pseudoaneurysms related to surgical bypass grafts, vascular stents, and stent-grafts.
- Follow-up study may be needed to help evaluate a patient's progress after treatment, procedure, intervention, or surgery. Documentation requires a medical reason that clearly indicates why additional imaging is needed for the type and area(s) requested.
- After stenting or surgery with signs of recurrent symptoms OR abnormal ankle/brachial index; abnormal or indeterminate arterial doppler; OR pulse volume recording (Pollack, 2012)

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## BACKGROUND

**High resolution c**omputed tomography angiography (CTA) provides a cost-effective and accurate imaging assessment **in the diagnosis and follow-up of** patients with aortic dissections, or peripheral arterial disease (PAD). **High resolution CTA may be used in the diagnosis and follow-up of patients with aortic dissection and lower extremity peripheral arterial disease (PAD).**

## OVERVIEW

**Suspected Peripheral Arterial Disease** – CTA (or MRA) is an excellent tool to diagnose lower extremity peripheral arterial disease (PAD). Benefits include the fast scanning time and accurate detection of occlusions and stenosis. According to the Society for Vascular Surgery guidelines (Conte, 2015), “Measurement of the ankle-brachial index (ABI) is the primary method for establishing the diagnosis of PAD. An ABI of  $\leq 0.90$  has been demonstrated to have high sensitivity and specificity for the identification of PAD compared with the gold standard of invasive arteriography.” The presence of a normal ABI at rest and following exercise almost excludes atherosclerotic disease as a cause for leg claudication (Ahmed, 2017; Stoner, 2016). When an ABI is  $>1.40$  and clinical suspicion is high, other tests such as toe-brachial index  $<8$ , a resting toe pressure  $<40$  mm Hg, a systolic peak posterior tibial artery flow velocity  $<10$  cm/s may be used. “In symptomatic patients in whom revascularization treatment is being considered, we recommend anatomic imaging studies, such as arterial duplex ultrasound, CTA, MRA, and contrast arteriography (Conte, 2015).” This later statement is accompanied by a “B” (moderate) rating for the accompanying evidence (“A” = high, “C” = low) “In patients with limited renal function or planned surgical intervention, noninvasive imaging tests (particularly MRA and CTA) may obviate the need for diagnostic catheter angiography to visualize the location and severity of peripheral vascular disease” (Ahmed, 2017).

Follow-up imaging post vascular surgery procedures **has-have** not been well researched without clear surveillance protocols in place. Clinical exam, ABI and EUS within the first month of endovascular therapy **are** generally recommended to assess for residual stenosis, and again at 6 and 12 months, then annually. More sophisticated imaging with CTA, ~~or~~ MRA, or invasive catheter angiography **is** reserved for complex cases (Zierler, 2018).

## POLICY HISTORY

Date	Summary
April 2021	<ul style="list-style-type: none"><li>• <a href="#">No substantive changes</a></li></ul>
<a href="#">May 2020</a>	<ul style="list-style-type: none"><li>• <a href="#">Improved by making more similar to LE CTA guidelines</a></li><li>• <a href="#">Added info regarding critical limb ischemia and clinical concern for vascular cause of ulcers after prior abnormal testing</a></li></ul>
<a href="#">May 2019</a>	<ul style="list-style-type: none"><li>• <a href="#">Added indication for evaluation of an organ or abnormality seen on previous imaging</a></li><li>• <a href="#">Removed indication for ischemia related to presence of ulcer, gangrene, or claudication</a></li><li>• <a href="#">Added/modified Background information and updated references</a></li></ul>

~~Review Date: May 2019~~

~~Review Summary:~~

- ~~• Added indication for evaluation of an organ or abnormality seen on previous imaging~~
- ~~• Removed indication for ischemia related to presence of ulcer, gangrene, or claudication~~
- ~~• Added/modified Background information and updated references~~

~~Review Date: May 2020~~

~~Review Summary:~~

- ~~• Improved by making more similar to LE CTA guidelines~~
- ~~• Added info regarding critical limb ischemia and clinical concern for vascular cause of ulcers after prior abnormal testing~~

## REFERENCES

Ahmed O, Hanley M, Bennett SJ, et al. ACR Appropriateness Criteria® - Vascular Claudication – Assessment for Revascularization. *J Am Coll Radiol*. 2017 May; 14(5S):S372-379.

American College of Radiology (ACR). ACR Appropriateness Criteria® .  
<https://acsearch.acr.org/list>. Revised 2016.

Bailey SR, Beckman JA, Dao, TD, et al. ACC / AHA / SCAI / SIR / SVM 2018 Appropriate Use Criteria for Peripheral Artery Intervention: A Report of the American College of Cardiology Appropriate Use Criteria Task Force, American Heart Association, Society for Cardiovascular Angiography and Interventions, Society of Interventional Radiology, and Society for Vascular Medicine. *J Am Coll Cardiol*. 2018.

Barnes GD. Society of Vascular Surgery Guidelines for Peripheral Artery Disease Management/ Ten Points to Remember. *J Vasc Surg*; 2015; 61.

Conte M, Pomposelli, FB, Clair DG, et al. Society for Vascular Surgery practice guidelines for atherosclerotic occlusive disease of the lower extremities: Management of asymptomatic disease and claudication. *J Vasc Surg*. March 2015; 61(3):2S–41S.e1.  
<https://doi.org/10.1016/j.jvs.2014.12.009>. <http://www.jvascsurg.org/article/S0741-5214%2814%2902284-8/fulltext>. Retrieved February 15, 2018.

Duan Y, Wang X, et al. Diagnostic Efficiency of Low-Dose CT Angiography compared with Conventional Angiography in Peripheral Arterial Occlusions. *AJR*. 2013; 201(6).

Gerhard-Herman MD, Gornik HL, Barrett C, et al. 2016 AHA/ACC guideline on the management of patients with lower extremity peripheral arterial disease: Executive summary: A report of the American College of Cardiology/American Heart Association Task Force on Clinical Practice Guidelines. *J Am Coll Cardiol*. 2017 Mar 21; 69(11):1465-1508.

Hodnett PA, Koktzoglou I, Davarpanah AH, et al. Evaluation of peripheral arterial disease with nonenhanced quiescent-interval single-shot MR angiography. *Radiology*. 2011; 260: 282-293.  
doi: 10.1148/radiol.11101336.

Lin PH, Bechara C, Kouglass P, et al. Assessment of aortic pathology and peripheral arterial disease using multidetector computed tomographic angiography. *Vasc Endovascular Surg*. 2009; 42(6):583-598. doi: 10.1177/1538574408320029.

Met R, Bipat MR, 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. doi:10.1001/jama.301.4.415.

[Pollak AW, Norton PT, Kramer CM. Multimodality imaging of lower extremity peripheral arterial disease: current role and future directions. \*Circ Cardiovasc Imaging\*. 2012;5\(6\):797-807. doi:10.1161/CIRCIMAGING.111.970814.](#)

Rosyd FN. Etiology, pathophysiology, diagnosis and management of diabetics' foot ulcer. *Int J Res Med Sci*. 2017; 5(10):4206-4213.

[Shishehbor MH, White CJ, Gray BH, et al. Critical limb ischemia. \*Am Coll Cardiol\*. 2016; 68\(18\):2002–15.](#)

Stoner MC, Calligaro KD, Chaer RA, et al. Reporting standards of the Society for Vascular Surgery for endovascular treatment of chronic lower extremity peripheral artery disease. *J Vasc Surg*. 2016 Jul; 64(1):e1-21.

Weiss C, Azene ER, et al. Sudden Onset of Cold, Painful foot. *J Am Coll Radiol*. 2017; 14(5).

Werncke T, Ringe KI, et al. Diagnostic Confidence of Run-Off CT-Angiography as the Primary Diagnostic Imaging Modality in Patients Presenting with Acute or Chronic Peripheral Arterial Disease. *PLoS One*. 2015; 10(4).

Zierler RE, Jordan WD, et al. The Society for Vascular Surgery practice guidelines on follow-up after vascular surgery arterial procedures. *J Vasc Surg*. 2018; 68:256-284.

[Reviewed / Approved by NIA Clinical Guideline Committee](#)

### GENERAL INFORMATION

It is an expectation that all patients receive care/services from a licensed clinician. All appropriate supporting documentation, including recent pertinent office visit notes, laboratory data, and results of any special testing must be provided. If applicable: All prior relevant imaging results and the reason that alternative imaging cannot be performed must be included in the documentation submitted.

Reviewed / Approved by  M. Atif Khalid, M.D., Medical Director, Radiology

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