


2025 Computed Tomography Angiography (CTA) of the Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-off

Diagnostic Imaging

CTA-ABDArteries-HH
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Last Review Date: 05/16/2025
Previous Review Date: 10/28/2024
Guideline Initiated: 06/30/2019





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Pediatric Considerations for Computed Tomography

While computed tomography (CT) is used in children, magnetic resonance imaging (MRI) or ultrasound is preferred for initial evaluation to minimize radiation exposure. CT is reserved for complex cases where detailed imaging is required. By integrating ultrasound and adhering to these guidelines, healthcare providers can optimize diagnostic accuracy while minimizing risks associated with radiation.

Recommendations for CT imaging include **ALL** of the following:

1. Ultrasound first: Utilize ultrasound as the initial modality where appropriate.
2. CT for complex cases: Reserve CT for when ultrasound or MRI is inadequate.
3. Adhere to guidelines: Follow established protocols to ensure safety and efficacy.
4. Minimize radiation exposure: Especially important for children, young adults and pregnant women.

Computed Tomography Angiography (CTA) of the Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-off

Computed Tomography Angiography (CTA) of the Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-off Related National Coverage Determination (NCD)/Local Coverage Determination (LCD)

Please refer to <https://www.cms.gov/medicare-coverage-database/search.aspx> if applicable to the individual's health plan membership.

Type/ID Number	Title
NCD 220.1	Computed Tomography

Clinical Judgment

These medical policies are designed to provide clinical guidance and do not supplant a provider's independent professional judgment. Physicians retain full and independent authority to determine appropriate care based on each patient's individual clinical circumstances. Although services may be subject to documentation requirements, medical necessity review, or coverage limitations, nothing in this policy is intended to restrict or interfere with a physician's independent medical judgment.

CTA General Contraindications

Computed tomography angiography (CTA) is contraindicated for **ANY** of the following:

- Clinical instability (eg, respiratory distress, severe hypotension, unstable arrhythmias)
References: [1] [4]
- Contrast allergy
References: [1] [4]
- Renal impairment (glomerular filtration rate [GFR] is less than 30 ml/min/1.73 m².)
References: [1] [4]
- **CANNOT** follow procedure directions (eg, holding breath, **NOT** moving)
References: [1] [4]

Preamble: Pediatric Diagnostic Imaging

HealthHelp's clinical guidelines for the Diagnostic Imaging program, are intended to apply to both adults and pediatrics (21 years of age or younger), unless otherwise specified within the criteria.

Computed Tomography Angiography (CTA) of the Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-off Guideline

Computed tomography angiography (CTA) of the abdominal aorta and bilateral iliofemoral lower extremity run-off is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Abdominal, pelvis or peripheral vascular disease is suspected or known and **ANY** of the following:
 - a. Critical limb ischemia with **ANY** of the following signs of peripheral artery disease:
 - i. Gangrene
 - ii. Ischemic rest pain
 - iii. Tissue loss
 - b. Peripheral artery disease (claudication, ulcer with suspected vascular cause) is suspected or known **AND** non-invasive studies (ankle-brachial index [ABI], pulse volume recording, segmental pressures, toe brachial index) are abnormal, non-diagnostic or indeterminate.

References: [3] [2]

2. Post-surgical assessments for evaluation of complications or disease recurrence



LCD 33959

See also, **LCD L33959**: Cardiac Catheterization and Coronary Angiography <https://www.cms.gov/medicare-coverage-database/search.aspx> if applicable to individual's healthplan membership.

CTA Abdominal Arteries Summary of Changes

CTA Abdominal Arteries guideline had the following version changes from 2024 to 2025:

- Added "Glomerular filtration rate" to "Renal impairment" under Contraindications
- Citations updated per the evidence.
- Removed "Prior CTA abdominal arteries is non-diagnostic or indeterminate." as it is too broad

CTA Abdominal Arteries APC section

Table 1. CTA Abdominal Arteries Associated Procedure Codes

Code	Description
75635	Computed tomographic angiography, abdominal aorta and bilateral iliofemoral lower extremity runoff, with contrast material(s), including noncontrast images, if performed, and image postprocessing

CTA of the Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-off Definitions

Ankle-brachial index (ABI) is a measure of the difference in the systolic blood pressure of the arm and ankle calculated by dividing the blood pressure of the ankle by that of the arm. It is a noninvasive diagnostic test that measures the ratio of the systolic blood pressure at the ankle to the systolic blood pressure at the brachial artery to assess for peripheral artery disease (PAD).

Arrhythmia is a disturbance in the rate or rhythm of the heartbeat due to abnormal impulse formation or conduction.

Claudication is a condition in which cramping pain in the leg is induced by exercise, typically caused by obstruction of the arteries.

Computed tomography angiography (CTA) is a medical test that combines a computed tomography (CT) scan with an injection of a special dye to produce pictures of blood vessels and tissues in a part of the body.

Critical limb ischemia is defined as the presence of ischemic rest pain, nonhealing wounds or ulcers, or gangrene for more than 2 weeks, with associated evidence of hypoperfusion.

Embolism is an obstruction of an artery, typically by a clot of blood or an air bubble, that has traveled from another part of the body.

Gangrene is localized death of soft tissues due to loss of blood supply or serious bacterial infection.

Glomerular filtration rate (GFR) is a blood test used to check how well the kidneys are working by estimating how much blood passes through the glomeruli (tiny filters in the kidneys that filter waste from the blood) each minute.

Hemodynamic instability is a condition caused by abnormal or unstable blood pressure that results in improper circulation and organs of the body do not receive adequate blood flow. It is characterized by chest pain, confusion, abnormal heart rate, loss of consciousness, restlessness, shortness of breath, cold hands, arms, legs or feet.

Hypotension is a medical condition characterized by low blood pressure. It occurs when the force of blood pushing against the artery walls is lower than normal, typically defined as a systolic pressure below 90 mmHg and/or a diastolic pressure below 60 mmHg. In other words, it is a condition in which the blood pressure is too low.

Indeterminate findings are inconclusive or insufficient for treatment planning.

Ischemia is a deficient supply of blood to a body part (such as the heart or brain) due to obstruction of the inflow of arterial blood.

Ischemic rest pain is a severe, unrelenting pain in the lower extremities, typically the feet, that occurs due to advanced peripheral artery disease (PAD) and is aggravated by elevation and relieved by dependency.

Non-diagnostic is a result that does not lead to a confirmed diagnosis.

Pediatric approximate ages are defined by the US Department of Health (USDH), the Food and Drug Administration (FDA), and the American Academy of Pediatrics (AAP) as the following:

1. Infancy, between birth and 2 years of age
2. Childhood, from 2 to 12 years of age
3. Adolescence, from 12 to 21 years of age, further defined by the AAP into:
 - a. Early (ages 11–14 years)
 - b. Middle (ages 15–17 years),
 - c. Late (ages 18–21 years)
 - d. Older ages may be appropriate for children with special healthcare needs.

Peripheral artery disease (PAD) is a blood circulation disorder in the arteries that supply the limbs. PAD may be partial (due to a stenosis) or complete (due to an occlusion).

Peripheral vascular disease (PVD) is a systemic disorder that involves the narrowing of peripheral blood vessels (vessels situated away from the heart or the brain). This happens as a result of arteriosclerosis, or a buildup of plaque, and can happen with veins or arteries.

Periprocedural is a medical term that means occurring before, during, or after a medical procedure. "Perioperative" is another term that refers to the time around surgery.

Pulse volume recording (PVR) uses a blood pressure cuff and hand-held Doppler ultrasound device to determine the presence and severity of peripheral artery disease (PAD). The Doppler ultrasound records sound waves that bounce off moving objects, such as blood, to measure speed and flow.

Segmental pressures are measured by combining Doppler ultrasound with blood pressure measurements at various locations in the arms and legs. By detecting differences in blood pressure at specific locations in different limbs, this test helps to diagnose arterial blockages and other circulation problems.

Toe Brachial Index (TBI) is defined as the ratio between the systolic blood pressure in the right or left toe and the higher of the systolic pressure in the right or left arms.

Ulcerated is a break in the skin or mucous membrane with loss of surface tissue, disintegration and necrosis of epithelial tissue and often pus.

CTA of the Abdominal Aorta and Bilateral Iliofemoral Lower Extremity Run-off References

- [1] American College of Radiology. (2023). ACR Manual on Contrast Media. *American College of Radiology*. Retrieved: April 2025. https://www.acr.org/-/media/ACR/Files/Clinical-Resources/Contrast_Media.pdf
- [2] Azene, E.M., Steigner, M.L., . . . Kalva, S.P. (2022). ACR Appropriateness Criteria Lower Extremity Arterial Claudication-Imaging Assessment for Revascularization: 2022 Update. *Journal of the American College of Radiology*, 19(11), S364-S373.
- [3] Browne, W.F., Sung, J., . . . Steigner, M.J. (2023). ACR Appropriateness Criteria Sudden Onset of Cold, Painful Leg: 2023 Update. *Journal of the American College of Radiology*, 20(11), S565-S573.
- [4] Canan, A., Rajah, P. & Abbara, S. (2023). Cardiac computed tomography. G.N. Levine, (Ed.). *Cardiology Secrets* (6), (pp. 85-96). Philadelphia, PA: Elsevier.



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Disclaimer section

Purpose

The purpose of the HealthHelp's clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to safely improve outcomes. Medical information is constantly evolving, and HealthHelp reserves the right to review and update these clinical guidelines periodically. HealthHelp reserves the right to include in these guidelines the clinical indications as appropriate for the organization's program objectives. Therefore the guidelines are not a list of all the clinical indications for a stated procedure, and associated Procedure Code Tables may not represent all codes available for that state procedure or that are managed by a specific client-organization.

Clinician Review

These clinical guidelines neither preempt clinical judgment of trained professionals nor advise anyone on how to practice medicine. Healthcare professionals using these clinical guidelines are responsible for all clinical decisions based on their assessment. All Clinical Reviewers are instructed to apply clinical indications based on individual patient assessment and documentation, within the scope of their clinical license.

Payment

The use of these clinical guidelines does not provide authorization, certification, explanation of benefits, or guarantee of payment; nor do the guidelines substitute for, or constitute, medical advice. Federal and State law, as well as member benefit contract language (including definitions and specific contract provisions/exclusions) take precedence over clinical guidelines and must be considered first when determining eligibility for coverage. All final determinations on coverage and payment are the responsibility of the health plan. Nothing contained within this document can be interpreted to mean otherwise.

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National and Local Coverage Determination (NCD and LCD)



NOTICE

To ensure appropriate review occurs to the most current NCD and/or LCD, always defer to <https://www.cms.gov/medicare-coverage-database/search.aspx>.

Background

National Coverage Determinations (NCD) and Local Coverage Determinations (LCD) are payment policy documents outlined by the Centers for Medicare and Medicaid Services (CMS) and the government's delegated Medicare Audit Contractors (MACs) that operate regionally in jurisdictions.

CMS introduced variation between different jurisdictions/Medicare Audit Contractors (MACs) and their associated covered code lists with the transition to ICD 10. The variation resulted in jurisdictions independently defining how codes are applied for exclusions, limitations, groupings, ranges, etc. for the medical necessity indications outlined in the NCD and LCD. Due to this variation, there is an inconsistent use/application of codes and coverage determinations across the United States between the different MACs.

In addition, **WITHOUT** notice, CMS can change the codes that indicate medical necessity and the format of the coverage determinations/associated documents (eg, Articles). This is an additional challenge for organizations to keep up with ongoing, unplanned changes in covered codes and medical necessity indications.

Medical Necessity Codes

Due to the variation in code application between jurisdictions/MACs and that updates can happen without notification, HealthHelp is not able to guarantee full accuracy of the codes listed for any Coverage Determination, and advises that prior to use, the associated Coverage Determination Articles are reviewed to ensure applicability to HealthHelp's programs and any associated NCDs and LCDs.

For Internal Use Only:

11248 11249 11253 11282 11325 11328 11333 11349 11350 11351 11352 11354 11355 11356
11358 11359 11360 11361 11362 11365 11366 11367 11368 11369 11370 11374 11375 11394
11395 11396 11565