

# 2026 Computed Tomography (CT) Brain/Head and Neck

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## *Diagnostic Imaging*

CT-HeadNeck-HH  
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**Last Review Date: 01/21/2026**

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Guideline Initiated: NEW





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# Computed Tomography Angiography (CTA) Brain/Head and Neck

## CTA Brain/Head and Neck CDD Table

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
LCD 38667	Computed Tomography Cerebral Perfusion Analysis (CTP)

## 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.

## Computed Tomography Angiography (CTA) General Contraindications

Relative contraindications for computed tomography angiography (CTA) are **ANY** of the following:

- Allergy to contrast material  
**References:** [2] [3]
- Hemodynamic instability (eg, respiratory distress, severe hypotension, unstable arrhythmias)  
**References:** [2] [3]
- Inability to cooperate with procedure (eg, remain still, hold breath)  
**References:** [2] [3]
- Renal impairment (glomerular filtration rate [GFR] is less than 30 ml/min/1.73 m<sup>2</sup>.)  
**References:** [2] [3]

## 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.

## CTA Brain/Head and Neck Guideline

Computed tomography angiography (CTA) of the brain/head and neck is considered medically appropriate when the documentation demonstrates **ANY** of the following:

1. Aneurysm screening in fibromuscular dysplasia, Loeys-Dietz syndrome or spontaneous coronary arteries dissection (SCAD) (**\*NOTE:** *For Loeys-Dietz imaging should be repeated at least every 2 years.*)  
**References:** [4]
2. Carotid or vertebral artery dissection is suspected (eg, headache, neck pain, visual disturbances), due to trauma or spontaneous weakness of vessel wall.  
**References:** [13]
3. Carotid or vertebral artery dissection is known and **ANY** of the following:
  - a. Anticoagulation treatment guidance when supported by documentation
  - b. Horner's syndrome (anhidrosis, miosis or ptosis) evaluation, for evaluation of vascular source
  - c. Post dissection follow-up at 3 to 6 months, for evaluation of recanalization or to guide anticoagulation treatment
  - d. Symptoms are new or progressing (eg, headache, neurological deficits, recurrent pain)
4. Hemorrhage of the head or neck is known, to identify arterial source of bleeding.  
**References:** [14] [13] [6] [9] [7]
5. Large cell vasculitis (giant cell arteritis or Takayasu's arteritis) is known and intracranial or extracranial involvement is suspected.  
**References:** [12]
6. Peri-procedural evaluation and **ANY** of the following:
  - a. Post-surgical assessments (within 90 days of procedure) for evaluation of complications or disease recurrence
  - b. Pre-procedural evaluation and **EITHER** of the following:
    - i. Neck ultrasound or carotid duplex imaging (within the last 6 months) is abnormal, non-diagnostic or indeterminate (eg, aberrant direction of flow in the carotid or vertebral arteries, carotid stenosis 70% or more, technically limited study).
    - ii. Symptomatic (eg, dizziness, headache, neck pain), neck ultrasound or carotid duplex imaging (within the last 6 months) is abnormal, non-

diagnostic or indeterminate (eg, aberrant arterial flow direction, carotid stenosis 50% or more, technically limited study).

**References:** [10] [1]

- Pulsatile tinnitus is known (eg, audiometry, physical exam, prior imaging [within the last 6 months]) **AND** vascular etiology (eg, aberrant internal carotid artery, carotid atherosclerotic disease, dural arteriovenous fistulas) is suspected.

**References:** [8]

- Stroke, ischemic, or transient ischemic attack (TIA) occurred recently (within last 6 months).

**References:** [5] [13]

- Vascular malformation is known, based on prior imaging (within the last 6 months), for further evaluation.

**References:** [9]

- Vertebrobasilar insufficiency (VBI) is suspected or known and symptomatic (eg, abnormal speech, ataxia, blindness, diplopia, dizziness, headaches, vertigo).

**References:** [11]

## CTA Brain/Head and Neck APC Section

**Table 1. CTA Head and Neck Associated Procedure Codes**

Code	Description
70471	Computed tomographic angiography (CTA), head and neck, with contrast material(s), including noncontrast images, when performed, and image postprocessing

## CTA Brain/Head and Neck Summary of Changes

CTA head and Neck had the following version changes from 2025 to 2026:

Date	Type	Summary
01/21/2026	Annual	New guideline

## CTA Brain/Head and Neck Definitions section

**Aberrant** is a deviation from the normal or expected course, structure or function.

**Aneurysm** refers to weakness in an artery wall, allowing it to abnormally balloon out or widen.

**Anhidrosis** is defined as the absence or significant reduction of sweating, which can result from various central or peripheral autonomic disorders, drug side effects, or other conditions affecting sweat gland function.

**Anticoagulant** is a substance that is used to prevent and treat blood clots in blood vessels and the heart.

**Ataxia** is a pathological abnormality of organization or modulation of movement, typically caused by cerebellar dysfunction, but can also result from lesions in the corticospinal tract or dorsal columns of the spinal cord.

**Atherosclerosis** is a chronic inflammatory disease characterized by the accumulation of fibrofatty plaques within the intima of large- and medium-sized arteries, leading to compromised arterial blood flow and potential vessel wall weakening.

**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.

**Diplopia** is a disorder of vision in which two images of a single object are seen (as from unequal action of the eye muscles).

**Dissection** refers to the separation of the layers within the wall of an artery, most commonly the aorta, due to a tear in the intimal layer, leading to the formation of a false lumen.

**Dural arteriovenous fistula (dAVF)** is an abnormal connection that forms between an artery and a vein in the tough covering over the brain or spinal cord.

**Fibromuscular dysplasia** is a rare blood vessel disorder that causes arteries to narrow and grow larger. FMD occurs when the strong, flexible cells in arteries are replaced with less strong, less flexible cells. This makes the arteries stiffer and more likely to be damaged.

**Giant cell arteritis** is a systemic inflammatory vascular disease that predominantly affects adults over 50 years old, characterized by granulomatous inflammation of the blood vessel walls, particularly the branches of the carotid and vertebral arteries, and is associated with symptoms such as headache, jaw claudication, visual disturbances, and tender/thickened temporal arteries.

**Glomerular filtration rate (GFR)** is defined as the volume of plasma filtered by the kidneys per unit of time, typically measured in milliliters per minute and normalized to body surface area (mL/min/1.73 m<sup>2</sup>).

**Hemorrhage** is a copious or heavy discharge of blood from the blood vessels.

**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.

**Horner's syndrome** is a syndrome marked by sinking in of the eyeball, constriction of the pupil (miosis), drooping of the upper eyelid (ptosis), face vasodilation and anhidrosis (abnormal deficiency or absence of sweating) caused by paralysis of the cervical sympathetic nerve fibers on the affected side.

**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 stroke** occurs when the blood supply to part of the brain is interrupted or reduced, preventing brain tissue from getting oxygen and nutrients. Brain cells begin to die in minutes.

**Loeys-Dietz syndrome** is a rare autosomal dominant connective tissue disorder characterized by aggressive aortic aneurysms, arterial tortuosity, and distinctive craniofacial and skeletal features.

**Miosis** is the excessive constriction of the pupil of the eye.

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

**Ptosis** is the drooping of the upper eyelid.

**Pulsatile tinnitus** is a rhythmic pulsing noise in one or both ears that occurs in the absence of external sound and tends to be synced with the heartbeat.

**Renal insufficiency** is poor function of the kidneys that may be due to a reduction in blood-flow to the kidneys caused by renal artery disease.

**Spontaneous coronary artery dissection (SCAD)** is a tear in the wall of a coronary artery. It's an emergency condition that can slow or block blood flow to the heart. This can lead to a heart attack, heart rhythm problems or sudden death.

**Takayasu's arteritis** is a chronic inflammatory disease especially of the aorta and its major branches (the brachiocephalic artery and left common carotid artery) that result in progressive stenosis, occlusion and aneurysm formation marked by diminution or loss of the pulse (as in the arm) and ischemic symptoms.

**Transient ischemic attack (TIA)** is a brief interruption of the blood supply to the brain that causes a temporary impairment of vision, speech or movement. The episode usually lasts for just a few moments but may be a warning sign of a full scale stroke.

**Ultrasound** is the diagnostic or therapeutic use of ultrasound and especially a noninvasive technique involving the formation of images used for the examination and measurement of internal body structures and the detection of bodily abnormalities.

**Vasculitis** involves inflammation of the blood vessels. The inflammation can cause the walls of the blood vessels to thicken, which reduces the width of the passageway through the vessel. If blood flow is restricted, it can result in organ and tissue damage.

**Vertebrobasilar insufficiency (VBI)** is defined by inadequate blood flow through the posterior circulation of the brain, supplied by the 2 vertebral arteries that merge to form the basilar artery. VBI affects the parts of the brain that control movement and balance.

**Vertigo** is a sensation of motion or spinning that is often described as dizziness. People with vertigo feel as though they are actually spinning or moving, or that the world is spinning around them.

## CTA Brain/Head and Neck References

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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  
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