



**Cohere Medical Policy -
Computed Tomography (CT), Cardiac**
Clinical Policy for Medical Necessity Review

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Important Notices

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Policy Information:

Specialty Area: Diagnostic Imaging

Policy Name: Cohere Medical Policy - Computed Tomography (CT), Cardiac

Type: Adult (18+ yo) | Pediatric (0-17 yo)

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Medical Necessity Criteria

Service: Computed Tomography (CT), Cardiac

Cohere Health takes an evidence-based approach to reviewing imaging and procedure requests, meaning that sufficient clinical information must be provided at the time of submission to determine medical necessity.

Documentation must include a recent and detailed history, physical examination related to the onset or change in symptoms, relevant lab results, prior imaging, and details of previous treatments. Advanced imaging or procedures should be requested after a clinical evaluation by the treating provider, which may include a referral to a specialist.

- When a specific clinical indication is not explicitly addressed in the Cohere Health medical policy, medical necessity will be determined based on established clinical best practices, as supported by evidence-based literature, peer-reviewed sources, professional society guidelines, and state or national recommendations, unless otherwise directed by the health plan.
- Requests submitted without clinical documentation, or those that do not align with the provided clinical information—such as mismatched laterality, body part, or CPT code—may be denied for lack of medical necessity due to insufficient or inconsistent clinical information.
- Repeat diagnostic testing due to technical issues—such as patient motion, incomplete exams, or incorrect imaging sequences—may not be considered medically necessary, as it is the responsibility of the imaging center to deliver appropriate, high-quality studies as originally authorized. Similarly, repeat imaging requested at a different facility based solely on provider preference may not be approved for medical necessity.
- When there are multiple diagnostic or therapeutic procedures requested simultaneously or within the past three months, each will be reviewed independently. Clinical documentation must clearly justify all of the following:
 - The medical necessity of each individual request

- Why prior imaging or procedures were inconclusive or why additional/follow-up studies are needed
- How the results will impact patient management or treatment decisions
- Requests involving adjacent or contiguous body parts may be considered not medically necessary if the documentation demonstrates that the patient's primary symptoms can be adequately assessed with a single study or procedure.
- Cohere Health evaluates imaging exams based on medical necessity, regardless of contrast use. If an initial non-contrast study is completed and the radiologist later determines that contrast is needed to clarify a finding, the original authorization number may be used—provided the contrast-enhanced exam is performed at the same imaging center and within the original request's validity period, unless otherwise directed by the health plan.

Description

Cardiac computed tomography (CT) is a common noninvasive imaging modality. It allows for the evaluation of the morphology and pathology of cardiac structures and those of the pericardium. It can be performed both with and without contrast, depending on the structures being visualized.¹

Medical Necessity Criteria

Indications

Computed tomography (CT), cardiac with contrast is considered appropriate if **ANY** of the following is **TRUE**¹:

- Documented or suspected neoplastic conditions of the heart (including cardiac masses or mass-like conditions); **OR**
- Infection or an infectious disorder, including infective endocarditis; **OR**
- Cardiac trauma-related conditions, including iatrogenic injury²; **OR**
- Cardiovascular conditions, known or suspected, including **ANY** of the following:
 - Suspected intracardiac thrombus, mass, aneurysm, or pseudoaneurysm when echocardiogram is indeterminate³; **OR**
 - Cardiomyopathies including **ANY** of the following:
 - Hypertrophic cardiomyopathy⁴; **OR**
 - Suspected arrhythmogenic cardiomyopathy of ventricular origin; **OR**
- Preoperative or pretreatment evaluation including **ANY** of the following:

- Atrial septal defect/patent foramen ovale (ASD/PFO) closure if transesophageal echocardiogram (TEE) is indeterminate; **OR**
- Aortic root replacement; **OR**
- Pacemaker placement planning including the evaluation of coronary vein before biventricular pacing; **OR**
- Pulmonary vein ablation therapy for cardiac dysrhythmia; **OR**
- Surgical valve replacement; **OR**
- Surgical myectomy or septal ablation for hypertrophic cardiomyopathy; **OR**
- Transcatheter left atrial appendage occlusion; **OR**
- Planning for transcatheter aortic valve replacement (TAVR); **OR**
- Postprocedure follow-up to evaluate complications of valve repair or replacement (open or endovascular), including **ANY** of the following:
 - Leaflet thrombosis; **OR**
 - Pannus formation; **OR**
 - Paravalvular leak; **OR**
 - Pseudoaneurysms; **OR**
 - Root abscess; **OR**
- Ventricular assist devices; **OR**
- Preprocedural planning for atrial fibrillation-related procedures, including electrical cardioversion or pharmacologic cardioversion when an indicated TEE has a contraindication or is cannot be completed⁵; **OR**
- Planned transcatheter treatment and the patient has valvular heart disease with **ANY** of the following:
 - Mitral replacement or repair; **OR**
 - Pulmonary replacement or repair; **OR**
 - Transcatheter aortic; **OR**
 - Tricuspid replacement or repair; **OR**
- Congenital anomalies and variants (e.g., cardiac, vascular) including **ANY** of the following^{1,6,7}:
 - **ANY** of the following:
 - Aortic and pulmonary anomalies; **OR**
 - Atrial and ventricular septal defects; **OR**
 - Coronary artery anomalies; **OR**
 - Left-sided cardiac obstructive disorders; **OR**
 - Right-sided cardiac obstructive disorders; **OR**
 - Systemic and pulmonary venous anomalies; **OR**

- Other complex structural disorders of the cardiac chambers, morphology, and valves (e.g., heterotaxy); **OR**
- Follow-up of corrected or palliated congenital heart disease and assessment of postoperative complications (e.g., shunt or conduit stenosis, thrombosis, pseudoaneurysms) in children and adults; **OR**
- Postoperative evaluation of corrected or palliated congenital heart disease, including **ANY** of the following:
 - Pseudoaneurysms; **OR**
 - Stenosis (shunt/conduit); **OR**
 - Thrombosis; **OR**
- Repeat imaging (defined as a repeat request following recent imaging of the same anatomic region with the same or similar modality) will be considered reasonable and necessary if **ALL** of the following are **TRUE**:
 - There are no established guidelines; **AND**
 - **ANY** of the following:
 - There are new or worsening symptoms not addressed in the guidelines, such that repeat imaging would influence treatment; **OR**
 - There is need for a one-time clarifying follow-up of a prior indeterminate finding; **OR**
 - In the absence of change in symptoms, there is an established need for monitoring which would influence management

Computed tomography (CT), cardiac without contrast is considered appropriate if **ANY** of the following is **TRUE**:

- Cardiac surgical preoperative planning; **OR**
- Detection or evaluation of **ANY** of the following:
 - Ascending aorta; **OR**
 - Cardiac masses; **OR**
 - Cardiac valves; **OR**
 - Pericardium; **OR**
- Repeat imaging (defined as a repeat request following recent imaging of the same anatomic region with the same or similar modality) will be considered reasonable and necessary if **ALL** of the following are **TRUE**:
 - There are no established guidelines; **AND**
 - **ANY** of the following:
 - There are new or worsening symptoms not addressed in the guidelines, such that repeat imaging would influence treatment; **OR**
 - There is need for a one-time clarifying follow-up of a prior indeterminate finding; **OR**

- In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

Computed tomography (CT), cardiac is not considered appropriate if **ANY** of the following is **TRUE**:

- The patient has undergone advanced imaging of the same body part within 3 months without undergoing treatment or developing new or worsening symptoms⁸; **OR**
- The request is for a calcium scoring scan 75571 or electron beam CT (EBCT).

*NOTE: The referring professional and radiologist should discuss the risks and benefits of contrast media administration, including possible prophylaxis, in patients with chronic or worsening kidney disease or severe renal failure.⁹

**NOTE: CT in patients with claustrophobia should be requested at the discretion of the ordering provider.

***NOTE: CT in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.

Disclaimer on Radiation Exposure in Pediatric Populations

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.^{10,11}

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT,

fluoroscopy, or radiography.^{10,11}

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.^{10,11}

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.^{10,11}

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
75571	Computed tomography (CT) of heart; without contrast material, with quantitative evaluation of coronary calcium
75572	Computed tomography (CT), heart; with contrast material, for evaluation of cardiac structure and morphology (including 3-dimensional [3D] image postprocessing, assessment of cardiac function, and evaluation of venous structures, if performed)
75573	Computed tomography (CT), heart; with contrast material, for evaluation of cardiac structure and morphology in the setting of congenital heart disease (including 3D image postprocessing, assessment of LV cardiac function, RV structure and function and evaluation)

76380	Computed tomography, limited or localized follow-up study
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Medical Evidence

Baldassarre et al. (2022) conducted a state-of-the-art review on the advances in multimodality imaging in cardio-oncology. Cardiac computed tomography (CT) is used to evaluate cardiac tumors, pericardial conditions, valve functionality/disorders, and preplanning for transcatheter valve interventions. The modality can produce imaging quickly and is widely available. In addition, cardiac CT can be assessed for non-cardiovascular consequences of radiation exposure. These include the identification of a porcelain aorta, detection of carotid artery disease, and evaluation for radiation-induced pulmonary fibrosis, all of which can elevate the risks associated with surgical interventions. Complementary imaging modalities such as contrast-enhanced cardiac CT and positron emission tomography (PET) with 18F-fluorodeoxyglucose (FDG) can aid in distinguishing between benign lesions and malignant cardiac tumors, mainly when cardiac magnetic resonance (CMR) evaluation is not feasible.¹²

Grandhi et al. (2022) performed a study that sought to assess the efficacy of coronary artery calcium (CAC) as an initial diagnostic modality for excluding obstructive coronary artery disease (CAD). The study specifically examined the utilization of CAC to rule out obstructive CAD in the emergency department (ED). A total of 2902 participants were identified from an extensive registry of patients admitted to the emergency department (ED) due to acute chest pain and deemed at low to intermediate risk for acute coronary syndrome. Fifty-six percent had a CAC score of 0. The diagnosis among participants included CAD (4.6%), non-obstructive CAD (3.9%), and obstructive CAD (0.7%). Among participants with a CAC score greater than 0, obstructive CAD was reported in 23%. The authors conclude that implementing CAC testing at the outset of CP evaluation may enhance patient triage by determining who can safely delay further testing and invasive procedures.¹³

Korsholm et al. (2020) published a review of expert recommendations on cardiac CT for planning transcatheter left atrial appendage occlusion. Guidance is provided on preparing for, conducting, reconstructing, and interpreting cardiac CT scans before left atrial appendage occlusion (LAO) procedures. This presents a consistent protocol for physicians seeking to

integrate 3D cardiac CT seamlessly into their workflow for LAAO. Despite the benefits associated with cardiac CT, widespread implementation before procedures has been difficult. Challenges include the absence of a standardized imaging protocol, limited familiarity with image and software adjustments, and apprehensions regarding radiation exposure, contrast utilization, and financial considerations. Before the LAAO procedure, cardiac CT should be conducted to assess the anatomical suitability, accurately measuring LAA dimensions to aid in device selection and procedural planning, and confirm the absence of LAA thrombus. Cardiac CT holds promise as a potential replacement for the current gold standard in preprocedural planning for LAAO.¹⁴

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Policy Revision History/Information

Original Date: April 29, 2022		
Review History		
Version 2	08/05/2024	Annual review and policy restructure.
Version 3	10/30/2024	Edited repeat imaging criteria language.
Version 4	04/17/2025	Removed "if contrast is used" from top line of non-indications to prevent inadvertent, inappropriate approval Removed indication for coronary artery calcification for CT without contrast to prevent inadvertent, inappropriate approval
Version 5	08/21/2025	Annual review Added description and updated layout to match updated template, including repeat imaging criteria