



MASSACHUSETTS

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Medical Policy

Computed Tomography (CT) Cardiac (Structure)

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Policy Number: 833

BCBSA Reference Number: N/A

Related Policies

- **Medicare Advantage: High-Technology Radiology and Sleep Disorder Management Clinical and Utilization Guidance Redirect, #923**
- AIM High Technology Radiology Management Program CPT and HCPCS Codes, #900
- Oncologic Imaging, #960
- Non-oncologic Imaging of the Abdomen and Pelvis, #961
- Non-oncologic Imaging of the Brain, #962
- Non-oncologic Imaging of the Chest, #963
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- Cardiac Computed Tomography (CT) for Quantitative Evaluation of Coronary Calcification), #832
- Nuclear Cardiology: Cardiac Blood Pool Imaging Blood Pool Imaging includes MUGA (Multi-Gated Acquisition) & First Pass Radionuclide Ventriculography, #830
- Nuclear Cardiology Infarct Imaging, #834
- Nuclear Cardiology Myocardial Perfusion Imaging, #836
- Magnetic Resonance Imaging (MRI) Cardiac, #835
- Positron Emission Tomography (PET) Myocardial Imaging, #837
- Cardiac Computed Tomography (CT) for Quantitative Evaluation of Coronary Calcification, #832

Policy¹

Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity

Computed Tomography (CT) Cardiac (Structure) is considered **MEDICALLY NECESSARY** for the following conditions:

Congenital heart disease

- For evaluation of suspected or established congenital heart disease in patients whose echocardiogram is technically limited or non-diagnostic; **OR**

- For further evaluation of patients whose echocardiogram suggests a new diagnosis of complex congenital heart disease; **OR**
- For evaluation of complex congenital heart disease in patients who are less than one year post-surgical correction; **OR**
- For evaluation of complex congenital heart disease in patients who have new or worsening symptoms and/or a change in physical examination; **OR**
- To assist in surgical planning for patients with complex congenital heart disease; **OR**
- For surveillance in asymptomatic patients with complex congenital heart disease who have not had cardiac MRI or cardiac CT within the preceding year
 - Cardiac MRI or transesophageal echocardiography may be preferable to cardiac CT in order to avoid radiation exposure

Cardiomyopathy

- Evaluation of patients with suspected arrhythmogenic right ventricular dysplasia; **OR**
- To assess LV function in patients with suspected or established cardiomyopathy when all other non-invasive imaging is not feasible or technically suboptimal
 - Other modalities providing non-invasive evaluation of LV function include transthoracic and transesophageal echocardiography, blood pool imaging (MUGA or First pass) and cardiac MRI; **OR**
- To assess RV function in patients with suspected RV dysfunction when all other non-invasive imaging is not feasible or technically suboptimal
 - Other modalities providing non-invasive evaluation of RV function include transthoracic and transesophageal echocardiography, blood pool imaging (MUGA or First pass) and cardiac MRI

Valvular heart disease

- Evaluation of suspected dysfunction of native or prosthetic cardiac valves when all other cardiac imaging options are not feasible or technically suboptimal
 - Other modalities providing non-invasive evaluation of native or prosthetic valves include transthoracic and transesophageal echocardiography, and cardiac MRI
- Evaluation of established dysfunction of native or prosthetic cardiac valves when all other cardiac imaging options are not feasible or technically suboptimal
 - Other modalities providing non-invasive evaluation of native or prosthetic valves include transthoracic and transesophageal echocardiography, and cardiac MRI

Evaluation of patients with established coronary artery disease

- Non-invasive localization of coronary bypass grafts or potential grafts (including internal mammary artery) and/or evaluation of retrosternal anatomy in patients undergoing repeat surgical revascularization

Intra-cardiac and para-cardiac masses and tumors

- In patients with a suspected cardiac or para-cardiac mass (thrombus, tumor, etc.) suggested by transthoracic echocardiography, transesophageal echocardiography, blood pool imaging or contrast ventriculography who have not undergone cardiac CT or cardiac MRI within the preceding 60 days; **OR**
- In patients with established cardiac or para-cardiac mass (thrombus, tumor, etc.) who are clinically unstable; **OR**
- In patients with established cardiac or para-cardiac mass (thrombus, tumor, etc.) who are clinically stable and have not undergone cardiac CT or cardiac MRI within the preceding year; **OR**
- In patients with established cardiac or para-cardiac mass (thrombus, tumor, etc.) who have undergone treatment (chemotherapy, radiation therapy, thrombolysis, anticoagulation or surgery) within the preceding year and have not had cardiac CT or cardiac MRI within the preceding 60 days

Cardiac aneurysm and pseudoaneurysm

Evaluation of pericardial conditions (pericardial effusion, constrictive pericarditis, or congenital pericardial diseases)

- In patients with suspected pericardial constriction; **OR**
- In patients with suspected congenital pericardial disease; **OR**
- In patients with suspected pericardial effusion who have undergone echocardiography deemed to be technically suboptimal in evaluation of the effusion; **OR**
- In patients whose echocardiogram shows a complex pericardial effusion (loculated, containing solid material)

Evaluation of cardiac venous anatomy

- For localization of the pulmonary veins in patients with chronic or paroxysmal atrial fibrillation/flutter who are being considered for ablation; **OR**
- Coronary venous localization prior to implantation of a biventricular pacemaker

Evaluation of the thoracic aorta

- In patients with suspected thoracic aortic aneurysm / dilation who have not undergone CT or MRI of the thoracic aorta within the preceding 60 days; **OR**
- In patients with confirmed thoracic aortic aneurysm / dilation with new or worsening signs/symptoms; **OR**
- For ongoing surveillance of stable patients with confirmed thoracic aortic aneurysm / dilation who have not undergone surgical repair and have not had imaging of the thoracic aorta within the preceding six months; **OR**
- In patients with suspected aortic dissection; **OR**
- In patients with confirmed aortic dissection who have new or worsening symptoms; **OR**
- In patients with confirmed aortic dissection in whom surgical repair is anticipated (to assist in preoperative planning); **OR**
- For ongoing surveillance of stable patients with confirmed aortic dissection who have not undergone imaging of the thoracic aorta within the preceding year; **OR**
- In patients with confirmed aortic dissection or thoracic aortic aneurysm / dilation who have undergone surgical repair within the preceding year and have not undergone imaging of the thoracic aorta within the preceding six months; **OR**
- In patients who have sustained blunt chest trauma, penetrating aortic trauma or iatrogenic trauma as a result of aortic instrumentation; **OR**
- In patients being evaluated for potential transcatheter aortic valve implantation/replacement (TAVI or TAVR) provided that the patient has not undergone cardiac CT or cardiac MRI within the preceding 60 days

Prior Authorization Information

Inpatient

- For services described in this policy, precertification/preauthorization **IS REQUIRED** for all products if the procedure is performed **inpatient**.

Outpatient

- For services described in this policy, see below for products where prior authorization **might be required** if the procedure is performed **outpatient**.

	Outpatient
Commercial Managed Care (HMO and POS)	The requirements of BCBSMA Radiology Management Program may require a precertification/prior authorization via AIM Specialty Health. These requirements are member-specific:
Commercial PPO and EPO	Please verify member eligibility and requirements through Online Services by logging onto Provider Central . Refer to our Quick Tip for an overview of precertification and prior authorization requirements.

	Ordering clinicians should request pre-certification from AIM Specialty Health or call 1-866-745-1783 (when applicable). Prior authorization information for Medicare HMO Blue and Medicare PPO Blue is addressed in medical policy #923, High Technology Radiology and Sleep Disorder Management for Medicare Advantage Products .
Indemnity	Prior authorization is not required.

CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

The following codes are included below for informational purposes only; this is not an all-inclusive list.

The above medical necessity criteria **MUST be met for the following codes to be covered for Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity:**

CPT Codes

CPT codes:	Code Description
75572	Computed tomography, heart, with contrast material, for evaluation of cardiac structure and morphology (including 3-D image post-processing, assessment of cardiac function, and evaluation of venous structures if performed)
75573	Computed tomography, heart, with contrast material, for evaluation of cardiac structure and morphology in the setting of congenital heart disease (including 3-D post-processing, assessment of left ventricular cardiac function, right ventricular structure and function and evaluation of venous structures, if performed)

The following ICD Diagnosis Codes are considered medically necessary when submitted with the CPT codes above if medical necessity criteria are met:

ICD-10 diagnosis coding

ICD-10 Diagnosis code	Description
C38.0	Malignant neoplasm of heart
C45.2	Mesothelioma of pericardium
C79.89	Secondary malignant neoplasm of other specified sites
D15.1	Benign neoplasm of heart
I01.8	Other acute rheumatic heart disease
I09.1	Rheumatic diseases of endocardium, valve unspecified
I09.81	Rheumatic heart failure
I20.0	Unstable angina
I20.1	Angina pectoris with documented spasm
I20.8	Other forms of angina pectoris
I20.9	Angina pectoris, unspecified

I24.0	Acute coronary thrombosis not resulting in myocardial infarction
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris
I25.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris
I25.2	Old myocardial infarction
I25.3	Aneurysm of heart
I25.41	Coronary artery aneurysm
I25.42	Coronary artery dissection
I25.5	Ischemic cardiomyopathy
I25.6	Silent myocardial ischemia
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris
I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris
I25.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm

I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris
I25.769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris
I25.89	Other forms of chronic ischemic heart disease
I25.9	Chronic ischemic heart disease, unspecified
I27.0	Primary pulmonary hypertension
I30.0	Acute nonspecific idiopathic pericarditis
I30.1	Infective pericarditis
I30.8	Other forms of acute pericarditis
I30.9	Acute pericarditis, unspecified
I31.0	Chronic adhesive pericarditis
I31.1	Chronic constrictive pericarditis
I31.3	Pericardial effusion (noninflammatory)
I31.4	Cardiac tamponade
I31.8	Other specified diseases of pericardium
I31.9	Disease of pericardium, unspecified
I33.0	Acute and subacute infective endocarditis
I33.9	Acute and subacute endocarditis, unspecified
I34.0	Nonrheumatic mitral (valve) insufficiency
I34.1	Nonrheumatic mitral (valve) prolapse
I34.2	Nonrheumatic mitral (valve) stenosis
I34.8	Other nonrheumatic mitral valve disorders
I34.9	Nonrheumatic mitral valve disorder, unspecified
I35.0	Nonrheumatic aortic (valve) stenosis
I35.1	Nonrheumatic aortic (valve) insufficiency
I35.2	Nonrheumatic aortic (valve) stenosis with insufficiency
I35.8	Other nonrheumatic aortic valve disorders
I35.9	Nonrheumatic aortic valve disorder, unspecified
I38	Endocarditis, valve unspecified
I42.0	Dilated cardiomyopathy
I42.1	Obstructive hypertrophic cardiomyopathy
I42.2	Other hypertrophic cardiomyopathy
I42.3	Endomyocardial (eosinophilic) disease
I42.4	Endocardial fibroelastosis
I42.5	Other restrictive cardiomyopathy

I42.6	Alcoholic cardiomyopathy
I42.7	Cardiomyopathy due to drug and external agent
I42.8	Other cardiomyopathies
I42.9	Cardiomyopathy, unspecified
I43	Cardiomyopathy in diseases classified elsewhere
I48.0	Paroxysmal atrial fibrillation
I48.1	Persistent atrial fibrillation
I48.2	Chronic atrial fibrillation
I48.3	Typical atrial flutter
I48.4	Atypical atrial flutter
I48.91	Unspecified atrial fibrillation
I48.92	Unspecified atrial flutter
I49.01	Ventricular fibrillation
I49.02	Ventricular flutter
I50.9	Heart failure, unspecified
I51.81	Takotsubo syndrome
I51.9	Heart disease, unspecified
I71.01	Dissection of thoracic aorta
I71.1	Thoracic aortic aneurysm, ruptured
I71.2	Thoracic aortic aneurysm, without rupture
I71.8	Aortic aneurysm of unspecified site, ruptured
I71.9	Aortic aneurysm of unspecified site, without rupture
I74.11	Embolism and thrombosis of thoracic aorta
M31.4	Aortic arch syndrome [Takayasu]
M54.2	Cervicalgia
M54.6	Pain in thoracic spine
M54.89	Other dorsalgia
M54.9	Dorsalgia, unspecified
M79.601	Pain in right arm
M79.602	Pain in left arm
M79.603	Pain in arm, unspecified
M79.621	Pain in right upper arm
M79.629	Pain in left upper arm
Q20.1	Double outlet right ventricle
Q20.2	Double outlet left ventricle
Q20.3	Discordant ventriculoarterial connection
Q20.4	Double inlet ventricle
Q20.5	Discordant atrioventricular connection
Q20.6	Isomerism of atrial appendages
Q20.8	Other congenital malformations of cardiac chambers and connections
Q20.9	Congenital malformation of cardiac chambers and connections, unspecified
Q21.0	Ventricular septal defect
Q21.1	Atrial septal defect

Q21.2	Atrioventricular septal defect
Q21.3	Tetralogy of Fallot
Q21.4	Aortopulmonary septal defect
Q21.8	Other congenital malformations of cardiac septa
Q21.9	Congenital malformation of cardiac septum, unspecified
Q22.0	Pulmonary valve atresia
Q22.1	Congenital pulmonary valve stenosis
Q22.2	Congenital pulmonary valve insufficiency
Q22.3	Other congenital malformations of pulmonary valve
Q22.4	Congenital tricuspid stenosis
Q22.5	Ebstein's anomaly
Q22.6	Hypoplastic right heart syndrome
Q22.8	Other congenital malformations of tricuspid valve
Q22.9	Congenital malformation of tricuspid valve, unspecified
Q23.0	Congenital stenosis of aortic valve
Q23.1	Congenital insufficiency of aortic valve
Q23.2	Congenital mitral stenosis
Q23.3	Congenital mitral insufficiency
Q23.4	Hypoplastic left heart syndrome
Q23.8	Other congenital malformations of aortic and mitral valves
Q23.9	Congenital malformation of aortic and mitral valves, unspecified
Q24.0	Dextrocardia
Q24.1	Levocardia
Q24.2	Cor triatriatum
Q24.3	Pulmonary infundibular stenosis
Q24.4	Congenital subaortic stenosis
Q24.5	Malformation of coronary vessels
Q24.8	Other specified congenital malformations of heart
Q24.9	Congenital malformation of heart, unspecified
Q25.0	Patent ductus arteriosus
Q25.1	Coarctation of aorta
Q25.2	Atresia of aorta
Q25.3	Supravalvular aortic stenosis
Q25.4	Other congenital malformations of aorta
Q25.5	Atresia of pulmonary artery
Q25.6	Stenosis of pulmonary artery
Q25.71	Coarctation of pulmonary artery
Q25.72	Congenital pulmonary arteriovenous malformation
Q25.79	Other congenital malformations of pulmonary artery
Q25.8	Other congenital malformations of other great arteries
Q25.9	Congenital malformation of great arteries, unspecified
Q26.0	Congenital stenosis of vena cava
Q26.1	Persistent left superior vena cava

Q26.2	Total anomalous pulmonary venous connection
Q26.3	Partial anomalous pulmonary venous connection
Q26.4	Anomalous pulmonary venous connection, unspecified
Q26.8	Other congenital malformations of great veins
Q26.9	Congenital malformation of great vein, unspecified
Q79.6	Ehlers-Danlos syndrome
Q87.40	Marfan's syndrome, unspecified
Q87.410	Marfan's syndrome with aortic dilation
Q87.418	Marfan's syndrome with other cardiovascular manifestations
Q87.42	Marfan's syndrome with ocular manifestations
Q87.43	Marfan's syndrome with skeletal manifestation
R00.0	Tachycardia, unspecified
R00.2	Palpitations
R06.00	Dyspnea, unspecified
R06.02	Shortness of breath
R06.03	Acute respiratory distress
R06.09	Other forms of dyspnea
R06.89	Other abnormalities of breathing
R06.9	Unspecified abnormalities of breathing
R07.1	Chest pain on breathing
R07.2	Precordial pain
R07.82	Intercostal pain
R07.89	Other chest pain
R07.9	Chest pain, unspecified
R10.13	Epigastric pain
R11.0	Nausea
R11.10	Vomiting, unspecified
R11.11	Vomiting without nausea
R11.12	Projectile vomiting
R11.14	Bilious vomiting
R11.2	Nausea with vomiting, unspecified
R42	Dizziness and giddiness
R53.1	Weakness
R53.83	Other fatigue
R55	Syncope and collapse
R60.0	Localized edema
R61	Generalized hyperhidrosis
R68.64	Jaw Pain
R93.1	Abnormal findings on diagnostic imaging of heart and coronary circulation
R94.30	Abnormal result of cardiovascular function study, unspecified
R94.31	Abnormal electrocardiogram [ECG] [EKG]
R94.39	Abnormal result of other cardiovascular function study
Z01.810	Encounter for preprocedural cardiovascular examination

Z45.010	Encounter for checking and testing of cardiac pacemaker pulse generator [battery]
Z45.018	Encounter for adjustment and management of other part of cardiac pacemaker

Policy History

Date	Action
1/2018	Prior authorization information for Medicare HMO Blue and Medicare PPO Blue removed. Prior authorization information for Medicare HMO Blue and Medicare PPO Blue is addressed in medical policy #923, High Technology Radiology and Sleep Disorder Management for Medicare Advantage Products .
10/2017	Coding information clarified
8/2017	Local Coverage Determination (LCD): Cardiac Computed Tomography (CCT) and Coronary Computed Tomography Angiography (CCTA) (L33559) added for Medicare Advantage members.
5/2017	Prior Authorization Information clarified.
10/1/2016	New medical policy describing medically necessary indications. Effective 10/1/2016. Adopted AIM Clinical Appropriateness Guidelines: Advanced Imaging: Cardiac Imaging Effective Date: March 1, 2016.

Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

[Medical Policy Terms of Use](#)

[Managed Care Guidelines](#)

[Indemnity/PPO Guidelines](#)

[Clinical Exception Process](#)

[Medical Technology Assessment Guidelines](#)

References

N/A

Endnotes

¹ Based on AIM Clinical Appropriateness Guidelines: Advanced Imaging: Cardiac Imaging.