

WHAT ASNC MEMBERS  
NEED TO KNOW ABOUT

# Coding

## Basic Coding Guidance for Billing Cardiac CT Imaging

**Q:** What are the new CPT codes for Cardiac CT imaging?

**A:**

CPT Category III Code	Description	Key Elements
0144T	CT, heart, without contrast material, including image post processing and quantitative evaluation of coronary calcium.  (Do not report 0144T in conjunction with 0145-0151T)	Calcium (Ca) Scoring
0145T	CT, heart, without contrast material followed by contrast material(s) and further sections, including cardiac gating and 3 D image processing, cardiac structure and morphology. For cardiac structure and morphology in congenital heart disease, use 0150T	Cardiac morphology and structure (Pre Electrophysiology E.P)
0146T	CT angiography (CTA) of coronary arteries (including native and anomalous coronary arteries and coronary bypass grafts), without quantitative evaluation of coronary calcium	Coronary arteries only
0147T	CTA or coronary arteries (including native and anomalous coronary arteries and coronary bypass grafts), with quantitative evaluation of coronary calcium.  (Do not report 0147T in conjunction with 0144T)	Coronary arteries and Ca Scoring
0148T	Cardiac structure and morphology and computed tomographic angiography of coronary arteries, including native and anomalous coronary arteries, coronary bypass grafts, without quantitation evaluation of coronary calcium	Coronary arteries and cardiac morphology and structure (Pre Electrophysiology E.P)
0149T	Cardiac structure and morphology and computed tomographic angiography of coronary arteries, including native and anomalous coronary arteries, coronary bypass grafts, with quantitative evaluation of coronary calcium.  (Do not report 0149T in conjunction with 0144T)	Coronary arteries, cardiac morphology and structure, plus Ca Scoring (Pre Electrophysiology E.P)
0150T	Cardiac Structure and morphology in congenital heart disease	Congenital heart disease, morphology and structure only
+0151T	CT, heart, without contrast material followed by contrast material(s) and further sections, including cardiac gating and 3 D image post processing; function evaluation, left and right ventricular function, ejection fraction and segmental wall motion. (List separately in addition to code for primary procedure).  (Use 0151T in conjunction with 0145T-0150T)	RVEF, LVEF and Wall-motion add on code for 0145T to 0150T

In previous issues of “What ASNC Members Need to Know...”, ASNC examined many of the questions surrounding basic coding guidance for billing MPI SPECT and myocardial PET perfusion imaging studies. This month’s edition focuses on the new category III CPT codes for cardiac CT studies.

**Q:** What are category III CPT codes?

**A:** Category III Current Procedural Terminology (CPT) codes are a temporary set of tracking codes for new and emerging technologies, which help facilitate data collection and assessment of new services and procedures. These codes are assigned a numeric-alpha identifier, for example 0144T in the case of one of the cardiac CT codes.

**Q:** Are category III CPT codes used to describe experimental services?

**A:** No. Assignment of a CPT category III code to a service does not indicate that it is experimental or of limited utility, but only that the service or technology is new and is being tracked for data collection.

**Q:** Does Medicare set national payment rates for category III codes?

**A:** No. In the Final Rule for the 2002 Medicare Physician Fee Schedule, the Centers for Medicare & Medicaid Services (CMS) stated that payment for category III codes is at the discretion of Medicare Carriers and that local payment determination is reasonable for these codes. Furthermore, carriers should not categorically deny payment for category III codes since they are effectively more specific, more functional versions of unlisted codes that many payers cover with appropriate documentation.

# Clinical Case A

## Clinical Data:

Atrial fibrillation, pre-LASSO procedure

## Method:

Technical Factors: Standard CT technique was utilized with contrast. An IV bolus of 100 mLs of iodixanol 270 mgI/ml was administered to the patient at 5 mL/sec with a saline chaser.

## Findings:

The left atrium appears normal, measuring approximately 7 cm in maximal width x 3.6 cm in maximal depth x 5.5 cm in maximal craniocaudal dimension. Normal pulmonary venous anatomy is noted without anomalous draining branches. No evidence for pulmonary thrombosis or stenosis.

Pulmonary venous diameters at the left atrial junction are as follows:

- Left superior pulmonary vein measures 1.4 cm x 1.8 cm.
- Left inferior pulmonary vein measures 1.3 cm x 1.7 cm.
- Right superior pulmonary vein measures 1.9 cm x 1.7 cm.
- Right inferior pulmonary vein measures 1.5 cm x 1.9 cm.

Metallic plates traverse the medial aspect of the left clavicle. Extensive dilated collateral vessels along the left anterior chest wall are most likely related to thrombosis of the left subclavian vein, with an apparent filling defect distal to its junction with the superior vena cava. Right subclavian vein is unremarkable. Overall heart size is normal. There is no pleural or pericardial effusion. Focal calcification at the midaspect of the left anterior descending coronary artery is identified.

There is no mediastinal, hilar, or axillary lymphadenopathy. The lungs are clear, without focal consolidation or suspicious pulmonary nodule or mass. Moderate costomanubrial arthrosis. No osseous lesions are noted. Mild thoracic spondylosis. The visualized upper abdominal viscera are unremarkable.

## Conclusion:

The left atrium and atrial appendage are normal. Extensive collateral vasculature along the left anterior chest wall with an apparent filling defect in the proximal left subclavian artery, highly suspicious for subclavian thrombosis, possibly on the basis of compression between the first rib and clavicle.

The main pulmonary artery and its major branches are all of normal size and are free of thrombus. Four pulmonary veins are identified, all of normal caliber. The left and right ventricles are of normal size and thickness. There is no pericardial effusion. The thoracic aorta is of normal size and shows no evidence of aneurysm or dissection.

## How to Code Clinical Case A

CPT/HCPCS Code	Number of Units	Description
0145T	1	CT heart with and without contrast, morphology and structure. This study is an example of pre EP evaluation of cardiac morphology in a patient scheduled for AV node ablation and biventricular pacing.
Q9948	100	Low osmolar contrast material, 250-299 mg/ml iodine concentration, per ml

**Q:** What methods can be utilized for administering contrast agents for Cardiac CTA procedures?

**A:** Contrast agents can be administered in standard dose protocols such as 100 to 150 milliliters or using a weight-based dose such as, per kilogram dose (1.416 ml/kg) or per body surface area (BSA) doses using the DuBois formula (55.02 ml/m<sup>2</sup>) or the Mosteller formula (54.3 ml/m<sup>2</sup>). ✱

## Clinical Case B

### Clinical Data:

Diabetes mellitus, family history of premature coronary artery disease

### Method:

A high-resolution, **ECG-gated, noncontrast**, multislice computed tomography (CT) of the heart was performed using a Siemens Somatom 16-slice scanner. The patient's average heart rate was 49 bpm. **Coronary calcification was analyzed** using Siemens calcium scoring software with a threshold of 130 Hounsfield units.

### Findings:

A total **coronary calcium score** of 4.5 places this patient in the following percentile range for age and gender:

- Lower percentile: 50
- Upper percentile: 75

The pericardium appears normal. The ascending aorta appears. Aortic calcification is present. Other noncardiac structures (including the lungs) were not formally evaluated on this dedicated cardiac CT scan. ✱

### How to Code Clinical Case B

CPT/HCPCS Code	Number of Units	Description
0144T	1	CT, Heart, w/o contrast, coronary calcium scoring

## Clinical Case C

### Clinical Data:

48-year-old male with chest pain

### Method:

Informed consent was obtained, and risks, benefits, and alternatives were discussed. All questions were answered to the patient's satisfaction. An angiocath was placed in the antecubital vein. Standardized high-resolution, **ECG-synchronized contrast-enhanced computed tomography (CT) of the heart with attention to the coronary arteries** was performed using a 16-slice scanner with a 0.37 msec gantry rotation, retrospective **cardiac gating** and 0.75 mm collimation (16 x 0.75) and a pitch of 0.20. Approximately **120 cc of nonionic contrast (concentration 350 mgI/cc)** was infused IV at 3 – 3.5 cc/sec using a dual-head injector. Bolus tracking was used to estimate the circulation time. **Multiplanar and 3D reconstructions** focused on the **cardiac structures** (small field of view) were performed starting with axial planes and slice thicknesses of 1 mm (with 0.5 shift). **3D reconstruction** was performed on an extended processing workstation.

### Findings:

**RCA:** Two foci with small mixed atheroma in the proximal end of the descending portion of the RCA. No flow-limiting disease.

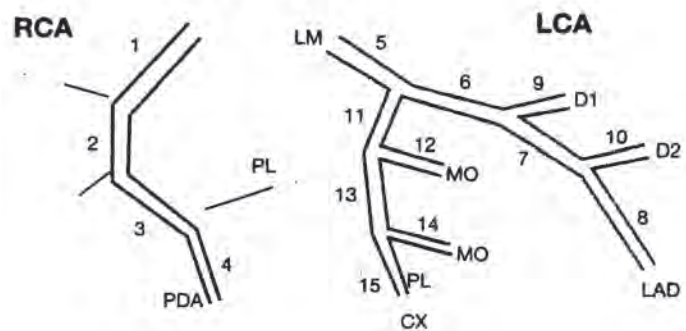
**LM:** Normal.

**LAD System:** The distal LAD has an irregular lumen with spotty calcification. No flow-limiting disease.

**Left Circumflex System:** 1.2 cm distal to the ostium there is a small focus of mixed atheroma and a streak of calcification. No flow-limiting disease. ✱

### Total Coronary Calcium Score of 4

#### Coronary angiography



### How to Code Clinical Case C

CPT/HCPCS Code	Number of Units	Description
0147T	1	CT, Heart, coronaries CCTA, w evaluation of coronary calcium
Q9950	120	LOCM, up to 350 – 399 mg/ml iodine concentration, per ml

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## Table A: National Correct Coding Edits\* Specific to Cardiac CT Studies

CCI edits for Version 13.1 April/June 2007 for Medicare Physician Fee Schedule and January 1, 2007 for Hospitals

### COLUMN 1 EDITS

**0144T, 0145T, 0148T, 0149T, 0150T** are considered a Column 1 Code to: 71250<sup>1</sup>, 71260<sup>1</sup>, 71270<sup>1</sup>,

**0144T, 0145T, 0146T, 0147T, 0148T, 0149T, 0150T** are considered a Column 1 Code to: 76376<sup>0</sup>, 76377<sup>0</sup>, 93000<sup>1</sup>, 93005<sup>1</sup>, 93010<sup>1</sup>, 93040<sup>1</sup>, 93041<sup>1</sup>, 93042<sup>1</sup>

**0146T, 0148T** are considered a Column 1 Code to: 0144T<sup>0</sup>, 0150T<sup>0</sup>, 01916<sup>0</sup>, 71275<sup>1</sup>

**0144T, 0145T, 0146T, 0147T, 0148T, 0149T, 0150T** are considered a Column 1 Code to: 01922<sup>0</sup>

**0144T, 0145T** are considered a Column 1 Code to: 0144T<sup>0</sup>, 0146T<sup>0</sup>, 0147T<sup>0</sup>,

**0144T, 0145T, 0146T, 0147T, 0148T, 0149T, 0150T** are considered a Column 1 Code to: 36000<sup>1</sup>, 36005<sup>1</sup>, 36410<sup>1</sup>, 90760<sup>1</sup>, 90765<sup>1</sup>, 90772<sup>1</sup>, 90774<sup>1</sup>, 90775<sup>1</sup>

**0147T, 0149T** are considered a Column 1 Code to: 0144T<sup>0</sup>, 0146T<sup>0</sup>, 0150T<sup>0</sup>, 01916<sup>0</sup>, 71275<sup>1</sup>

**0148T** is considered a Column 1 Code to: 0145T<sup>0</sup>, 0146T<sup>0</sup>, 0147T<sup>0</sup>

**0149T** is considered a Column 1 Code to: 0145T<sup>0</sup>, 0147T<sup>0</sup>, 0148T<sup>0</sup>

**0150T** is considered a Column 1 Code to: 0144T<sup>0</sup>

**0151T** is considered a Column 1 Code to: 0144T<sup>0</sup>, 76376<sup>0</sup>, 76377<sup>0</sup>

### COLUMN 2 EDITS

**0144T** is considered a Column 2 Code to: 0145T<sup>0</sup>, 0146T<sup>0</sup>, 0147T<sup>0</sup>, 0150T<sup>0</sup>, 0151T<sup>0</sup>

**0144T, 0145T, 0146T, 0147T, 0150T** are considered a Column 2 Code to: 0148T<sup>0</sup>, 0149T<sup>0</sup>

**0144T, 0146T, 0148T** are considered a Column 2 Code to: 0145T<sup>0</sup>, 0147T<sup>0</sup>

**0144T** is considered a Column 2 Code to: 0146T<sup>0</sup>, 0150T<sup>0</sup>, 0151T<sup>0</sup>

**0147T** is considered a Column 2 Code to: 0145T<sup>0</sup>

**0148T** is considered a Column 2 Code to: 0149T<sup>0</sup>

**0150T** is considered a Column 2 Code to: 0146T<sup>0</sup>, 0147T<sup>0</sup>

### MUTUALLY EXCLUSIVE EDITS

**0145T** is considered Mutually Exclusive with: 0150T<sup>0</sup>

**0150T** is considered Mutually Exclusive with: 0145T<sup>0</sup>

[Superscript '1' allows use of modifier 59 to bypass CCI edit. Superscript '0' identifies code pairs not allowed by the same provider on the same date or service.]

\* CMS developed its coding policies for the NCCI based on: coding conventions defined in the American Medical Association's CPT manual; national and local policies and edits; coding guidelines developed by national societies; analysis of standard medical practices; and a review of current coding practices. The two major types of NCCI edits are comprehensive and mutually exclusive. Column 1/Column 2 comprehensive edits apply to code combinations where one of the codes is a component of a more comprehensive code. The NCCI process is designed to prevent physicians from reporting one or more components of a comprehensive service when a single code is available that describes the complete service. In these circumstances, the code from column 1 is paid while the code from column 2 is not because it is considered part of the column 1 code.

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**GE Healthcare**

