

CAUTION: Read the [ICD-9 Policy Holding Library](#) page about policy in this document.

Cardiology

This section describes policy and billing instructions for completing claims for cardiology services.

Cardiography Procedures: Reimbursement Guidelines

The following reimbursement restrictions apply when billing for electrocardiography (ECG) procedures.

CPT-4 Codes
Not Reimbursable
With Split-Bill Modifiers

CPT-4 codes 93000, 93015, 93040, 93224 and 93268 – 93272 (cardiography) are not reimbursable when billed with a split-bill modifier. These codes, by definition, include both the technical and professional component and have corresponding CPT-4 codes to indicate the professional or technical component separately.

For example, when billing for CPT-4 code 93040 (rhythm ECG, one to three leads; with interpretation and report), the individual modifiers 26 (professional component) and TC (technical component) are inclusive within this code and are therefore not separately reimbursable. It should be noted that CPT-4 codes 93042 (rhythm ECG, one to three leads; interpretation and report only) and 93041 (rhythm ECG, one to three leads; tracing only without interpretation and report) allow for separately billing either the professional or technical component of the procedure. (See following chart.)

CPT-4 Code	CPT-4 Code Component
93040 (Rhythm ECG)	Technical and Professional
93041 (Rhythm ECG)	Technical Only
93042 (Rhythm ECG)	Professional only

CPT-4 Codes 93040, 93041 and 93042:
Combined Technical and Professional Components.

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ECG Procedure Sets
and Component Tests

CPT-4 cardiography procedure codes are defined with the following subset listings for respective component tests.

CPT-4 Code ECG Procedure Sets	CPT-4 Code Component Tests
93000	93005, 93010
93015	93016, 93017, 93018
93040	93041, 93042
93224	93225, 93226, 93227

The complete testing codes 93000, 93015, 93040, 93224 – 93227 may be billed by the same or different providers using the complete test code or respective component test codes, but each set is reimbursable only once per recipient, per day, any provider, per occurrence.
(For exceptions to codes 93000 and 93040 refer to the following “Multiple ECGs.”)

Component Billing Restrictions

Total reimbursement for the component test code combinations will not exceed the reimbursement amount for the respective complete procedure. For example, the sum of two component codes (93005 and 93010) billed by the same provider may not exceed the rate for the respective complete procedure (code 93000).

Multiple ECGs

When more than one ECG is performed with the following CPT-4 codes for the same recipient, by the same provider, on the same date of service and at different times, each ECG may be separately reimbursed when billed with modifier 76. To bill multiple ECGs, providers should enter the appropriate electrocardiogram CPT-4 code(s) on the claim with modifier 76 and the number of ECGs performed in the *Days or Units* field (Box 24G) on the *CMS-1500* claim or *Service Units* field (Box 46) on the *UB-04* claim.

CPT-4 Code	Description
93000	ECG, routine with at least 12 leads; with interpretation and report
93010	interpretation and report only
93040	Rhythm ECG, 1-3 leads; with interpretation and report
93041	tracing only without interpretation and report
93042	interpretation and report only

Ventricular Assist Devices	<p>Claims for HCPCS codes Q0478 – Q0504, and Q0506 – Q0509 (ventricular assist devices and accessories) will be reimbursed at invoice cost. Code Q0478 (power adapter for use with electric or electric/pneumatic ventricular assist device, vehicle type) is reimbursable as a rental only. Code Q0479 (power module for use with electric or electric/pneumatic ventricular assist device) is reimbursable as a replacement only. Bill Q0478 using modifier RR, and bill Q0479 using modifier RB. These items are non-taxable. Code Q0506 must be billed with modifier NU.</p>
CPT-4 Code 93225 Not Reimbursable With	<p>CPT-4 code 93225 (external electrocardiographic recording up to 48-hours by continuous rhythm recording and storage; recording) is not reimbursable when billed in conjunction with critical care code 99291 or 99292 by the same provider, for the same recipient and date of service.</p>
Critical Care Codes	<p>is not reimbursable when billed in conjunction with critical care code 99291 or 99292 by the same provider, for the same recipient and date of service.</p>
CPT-4 Code 93227: Reimbursable With Critical Care Codes	<p>CPT-4 code 93227 (24-hour electrocardiographic monitoring; physician review and interpretation) is reimbursable when billed in conjunction with critical care code 99291 or 99292 by the same provider for the same recipient and date of service. Under these circumstances, providers must include justification for code 93227 in the <i>Remarks</i> field (Box 80)/<i>Additional Claim Information</i> field (Box 19) of the claim.</p>
Frequency Limits CPT-4 Codes 93228 and 93229	<p>CPT-4 codes 93228 and 93229 (wearable mobile cardiovascular telemetry with electrocardiographic recording) may be billed once per 30 days.</p>

**Echocardiographic
Procedures**

The following CPT-4 codes are reimbursable for echocardiography and must be billed with the appropriate split-billing modifiers.

<u>CPT-4 Code</u>	<u>Description</u>
93303	Transthoracic echocardiography for congenital cardiac anomalies; complete
93304	follow-up or limited study
93306	Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, complete, with spectral Doppler echocardiography, and with color flow Doppler echocardiography
93307	Echocardiography, transthoracic, real-time with image documentation (2D) with or without M-mode recording; complete
93308	follow-up or limited study
93312	Echocardiography, transesophageal, real-time with image documentation (2D) (with or without M-mode recording); including probe placement, image acquisition, interpretation and report
93315	Transesophageal echocardiography for congenital cardiac anomalies; including probe placement, image acquisition, interpretation and report
93318	Echocardiography, transesophageal (TEE) for monitoring purposes, including probe placement, real-time 2-dimensional image acquisition and interpretation leading to ongoing (continuous) assessment of (dynamically changing) cardiac pumping function and to therapeutic measures on an immediate time basis
93320	Doppler echocardiography, pulsed wave and/or continuous wave with spectral display (list separately in addition to codes for echocardiographic imaging); complete
93321	follow-up or limited study (list separately in addition to codes for echocardiographic imaging)
93325	Doppler echocardiography color flow velocity mapping (list separately in addition to codes for echocardiography)

CPT-4 Code	Description
93350	Echocardiography, transthoracic, real-time with image documentation (2D, with or without M-mode recording), during rest and cardiovascular stress test using treadmill, bicycle exercise and/or pharmacologically induced stress, with interpretation and report. (The appropriate stress testing code from the 93016 – 93018 series should be reported in addition to 93350 to capture the exercise stress portion of the study.)
93351	including performance of continuous electrocardiographic monitoring, with physician supervision
93352	Use of echocardiographic contrast agent during stress echocardiography

Initial and Follow-up Exams Initial and follow-up echocardiographic exams of the same recipient on the same date of service are reimbursable if an explanation of medical necessity is included with the claim.

CPT-4 Codes 93306 and 93307 CPT-4 codes 93306 and 93307 are not reimbursable when billed for the same recipient, on the same date of service, by any provider.

CPT-4 Codes 93307 and 93350 CPT-4 codes 93307 and 93350 are mutually exclusive. These codes are not both reimbursable if billed for the same recipient on the same date of service.

CPT-4 Codes 93308, 93320 and 93321 CPT-4 codes 93308, 93320 and 93321 may be reimbursed for either:

- One professional component (modifier 26) plus one technical component (modifier TC) for the same date of service, any provider; or
- Both the professional and technical components (no modifier) for the same date of service, same provider.

Doppler Echocardiography	<p>Doppler cardiac ultrasound is not an imaging modality for studying anatomy, but a technique used to make accurate non-invasive physiological measurements of blood flow, shunts, valve flow, pressures and pressure gradients. It supplements, not replaces, imaging cardiac ultrasound. CPT-4 code 93325 may be billed by the same provider for the same recipient and date of service as codes 93320 and 93321.</p> <p>Note: Claims for Doppler echocardiography (CPT-4 codes 93320 and 93321) must be billed with an appropriate ICD-9-CM diagnosis code and are reimbursable only if a report is submitted with the claim.</p>
Required Echocardiographic Training	<p>Echocardiographic codes are to be billed only by providers who have had at least six months of dedicated training in an established echocardiographic laboratory.</p>
Echocardiography Contrast Agents	<p>Perflutren protein-type A microspheres (Optison) and perflutren lipid microspheres (Definity) are reimbursable when used in patients with suboptimal echocardiograms to opacify the left ventricular chamber and to improve the delineation of the left ventricular endocardial border.</p>
Dosage	<p>Q9956 The maximum dose is 9 ml.</p> <p>Q9957 The usual dose is up to 2 ml. A larger dose is allowed when the provider documents that the patient's weight is greater than 100 kg.</p>
Billing	<p>HCPCS codes</p> <p>Q9956 Injection, octofluoropropane microspheres, per ml (Optison)</p> <p>Q9957 Injection, perflutren lipid microspheres, per ml (Definity)</p>
Electrocardiography (ECG) With Telephone Link	<p>When a telephone link is used for a cardiogram (ECG), where a mounted tracing and interpretation are returned to the provider, CPT-4 code 93000 should be used. Such a procedure is not a phonocardiogram.</p> <p>Note: A phonocardiogram is a specialized, non-invasive technique for recording heart sounds requiring special equipment and training. This is not a Medi-Cal benefit.</p>

Cardiovascular Stress Testing/Holter Monitoring

CPT-4 codes for billing cardiovascular stress testing and Holter monitoring are as follows:

<u>CPT-4 Code</u>	<u>Description</u>
93000 – 93010	Electrocardiogram
93015 – 93018	Cardiovascular stress testing
93224 – 93227, 93268	Holter monitoring

CPT-4 Codes 93000 – 93010 Not Reimbursable With Code 93015

Codes 93000 – 93010 are not reimbursable when code 93015 (cardiovascular stress test) has already been paid to the same provider, for the same recipient and date of service. Reimbursement for code 93015 may be reduced, or the claim may be denied, if codes 93000 – 93010 have already been paid to the same provider, for the same recipient and date of service.

CPT-4 Codes 93016 – 93018 Not Reimbursable With Code 93015

Codes 93016 – 93018 are not reimbursable if code 93015 (cardiovascular stress test) was paid to any provider, for the same recipient and date of service. Reimbursement for code 93015 may be reduced if codes 93016 – 93018 were paid to any provider, for the same recipient and date of service.

Cardiovascular Device Monitoring – Implantable and Wearable Devices

The following CPT-4 codes are reimbursable for cardiovascular device monitoring of implantable devices.

<u>CPT-4 Code</u>	<u>Description</u>
93279	Programming device evaluation with iterative adjustment of the implantable device to test the function of the device and select optional permanent programmed values with physician analysis, review and report, single lead pacemaker system
93280	dual lead pacemaker system
93281	multiple lead pacemaker system
93282	single lead implantable cardioverter-defibrillator system
93283	dual lead implantable cardioverter-defibrillator system

<u>CPT-4 Code</u>	<u>Description</u>
93284	multiple lead implantable cardioverter-defibrillator system
93285	implantable loop recorder system
93286	Peri-procedural device evaluation and programming of device system parameters before or after a surgery, procedure, or test with physician analysis, review and report; single, dual, or multiple lead pacemaker system
93287	single, dual, or multiple lead implantable cardioverter-defibrillator system
93288	Interrogation device evaluation (in person) with physician analysis, review and report, includes connection, recording and disconnection per patient encounter; single, dual, or multiple lead pacemaker system
93289	single, dual, or multiple lead implantable cardioverter-defibrillator system, including analysis of heart rhythm derived data elements
93290	implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors
93291	implantable loop recorder system, including heart rhythm derived data analysis
93292	wearable defibrillator system
93293	Transtelephonic rhythm strip pacemaker evaluation(s) single, dual, or multiple lead pacemaker system, includes recording with and without magnet application with physician analysis, review and report(s), up to 90 days

<u>CPT-4 Code</u>	<u>Description</u>
93294	Interrogation device evaluations(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system with interim physician analysis, review(s) and reports(s)
93295	single, dual, or multiple lead implantable cardioverter-defibrillator system with interim physician analysis, review(s) and report(s)
93296	single, dual, or multiple lead pacemaker system or implantable cardioverter-defibrillator system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results
93297	Interrogation device evaluation(s), (remote) up to 30 days; implantable cardiovascular monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, physician analysis, review(s) and report(s)
93298	implantable loop recorder system, including analysis of recorded heart rhythm data, physician analysis, review(s) and report(s)
93299	implantable cardiovascular monitor system or implantable loop recorder system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results.

CPT-4 code 93293 and codes 93294 – 93296 may be billed once per 90 days.

CPT-4 codes 93297 – 93299 may be billed once per 30 days.

**Ergonovine
Provocation Test**

The ergonovine provocation test is used in diagnostic evaluation of patients with coronary arterial spasm (CAS) resulting in Prinzmetal angina. The test is administered with increasing doses of ergonovine to a patient who undergoes continuous ECG monitoring or selective coronary angiography.

CPT-4 code 93024
“By Report” Procedure

Providers should use CPT-4 code 93024 to bill for the ergonovine provocation test. Because this is a “By Report” procedure, sufficient information must be included on the claim to ensure appropriate reimbursement. “By Report” information should include whether a cardiovascular stress test or a coronary angiography was performed in conjunction with the ergonovine test.

**Intracardiac
Electrophysiological
Procedures**

Comprehensive electrophysiological evaluations (CPT-4 codes 93619 – 93622, 93653, 93654 and 93656) require authorization and a *Treatment Authorization Request* (TAR) must be submitted for these codes. The primary codes, and their respective supplemental codes, are described below:

CPT-4

<u>Code</u>	<u>Description</u>
93619	Comprehensive electrophysiologic evaluation with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording, including insertion and repositioning of multiple electrode catheters, without induction or attempted induction of arrhythmia (Do not report 93619 in conjunction with codes 93600, 93602, 93610, 93612, 93618, or 93620 – 93622)
93620	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with right atrial pacing and recording, right ventricular pacing and recording, His bundle recording (Do not report 93620 in conjunction with codes 93600, 93602, 93610, 93612, 93618 or 93619)
93621	with left atrial pacing and recording from coronary sinus or left atrium (Do not report 93621 in conjunction with 93656)
93622	with left ventricular pacing and recording
93653	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of an arrhythmia with right atrial pacing and recording, right ventricular pacing and recording (when necessary), and His recording (when necessary) with intracardiac catheter ablation of arrhythmogenic focus; with treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathway, accessory atrioventricular connection, cavo-tricuspid isthmus or other single atrial focus or source of atrial re-entry (Do not report 93653 in conjunction with 93600 – 93603, 93610, 93612, 93618 – 93620, 93642, 93654)
93654	with treatment of ventricular tachycardia or focus of ventricular ectopy including intracardiac electrophysiologic 3D mapping, when performed, and left ventricular pacing and recording, when performed (Do not report 93654 in conjunction with 93279 – 93284, 93286 – 93289, 93600 – 93603, 93609, 93610, 93612, 93613, 93618 – 93620, 93622, 93642, 93653, 93656)

- 93655 Intracardiac catheter ablation of a discrete mechanism of arrhythmia which is distinct from the primary ablated mechanism, including repeat diagnostic maneuvers, to treat a spontaneous or induced arrhythmia (Use 93655 in conjunction with 93653, 93654, 93656)
- 93656 Comprehensive electrophysiologic evaluation including transeptal catheterizations, insertion and repositioning of multiple electrode catheters with induction or attempted induction of an arrhythmia including left or right atrial pacing/recording when necessary, right ventricular pacing/recording when necessary, and His bundle recording when necessary with intracardiac catheter ablation of atrial fibrillation by pulmonary vein isolation (Do not report 93656 in conjunction with 93279 – 93284, 93286 – 93289, 93462, 93600, 93602, 93603, 93610, 93612, 93618 – 93621, 93653, 93654)
- 93657 Additional linear or focal intracardiac catheter ablation of the left or right atrium for treatment of atrial fibrillation remaining after completion of pulmonary vein isolation (Use 93657 in conjunction with 93656)

Note: Because the comprehensive electrophysiologic evaluation codes constitute a combination of the listed primary CPT-4 codes, claims billing for the supplemental codes on the same date of service as a comprehensive evaluation may or may not be reimbursed. Please refer to the Current Procedural Terminology (CPT-4) book for specifics on which codes may or may not be billed together.

A TAR will not override the policy in the CPT-4 book.

Transesophageal Echocardiography (TEE) Codes

Transesophageal echocardiography (TEE) services are billed with CPT-4 codes 93312, 93315 and 93318. For services billed by any provider, the following policies apply:

- Only one of the following CPT-4 codes may be reimbursed for claims on the same date of service: 93312, 93315 or 93318. Subsequent claims must have the same procedure code and appropriate modifier, or they will be denied.
- CPT-4 codes 93312, 93315 and 93318 must be billed with the appropriate modifiers: 26 (professional component) or TC (technical component). When billing for both the professional and technical components, a modifier is neither required nor allowed.
- The frequency restriction for CPT-4 codes 93312, 93315 and 93318 is four per year, per recipient, by any provider.

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**Wearable Cardiac
Defibrillator (WCD)
HCPCS code K0606**

HCPCS code K0606 (automatic external defibrillator, with integrated electrocardiogram analysis, garment type), also known as a wearable cardiac defibrillator (WCD), is a Durable Medical Equipment (DME) benefit of the Medi-Cal program as a rental-only, subject to authorization.

One of the following criteria must be met for approval of a *Treatment Authorization Request (TAR)* for the rental of a WCD:

1. A documented episode of ventricular fibrillation or a sustained (lasting 30 seconds or longer) ventricular tachyarrhythmia. These dysrhythmias may be either spontaneous or induced during an electrophysiologic study, but may not be due to a transient or reversible cause and not occur during the first 48 hours of an acute myocardial infarction.
2. Familial or inherited conditions with a high risk of life-threatening ventricular arrhythmias, such as (but not limited to) long QT syndrome or hypertrophic cardiomyopathy.
3. Either documented myocardial infarction or dilated cardiomyopathy and a left ventricular ejection fraction equal to or less than 0.35.
4. A previously implanted defibrillator that now requires explanation (removal).

Authorization Required

Due to the high cost of this item and its anticipated use as a short term “bridge” to a change in the recipient’s status, a *Treatment Authorization Request (TAR)* for this item is required for reimbursement and limited to a maximum of one month’s approval. If usage beyond one month is necessary, another TAR is required. The average use of a WCD is three months.

Billing

HCPCS code K0606 (wearable cardiac defibrillator [WCD]), is reimbursable only to durable medical equipment providers. Refer to the Allied Health provider manual section *Durable Medical Equipment (DME): Bill for DME* for reimbursement policies and information.

Genetic Testing

HCPCS code S3861 (genetic testing) requires a *Treatment Authorization Request* (TAR) and is a once-in-a-lifetime test. A TAR must include the documentation outlined for each code.

Percutaneous Coronary Intervention Procedures

Percutaneous Coronary Intervention (PCI) refers to the management of coronary artery occlusion by any of various catheter-based techniques, such as but not limited to percutaneous transluminal coronary angioplasty, atherectomy and implantation of coronary stents and related devices.

Each code in this section includes balloon angioplasty, when performed. Diagnostic coronary angiography may be reported separately under specific circumstances.

CPT-4

<u>Code</u>	<u>Description</u>
<u>75962</u>	<u>Transluminal balloon angioplasty, peripheral artery other than renal, or other visceral artery, iliac or lower extremity, radiological supervision and interpretation</u>

Note: Documentation is required for a procedure performed on the contralateral side. Providers must document when procedure is performed on the opposite site in the *Remarks* field (Box 80)/*Additional Claim Information* filed (Box 19) on the claim or on an attachment.

The following CPT-4 codes require an approved TAR for reimbursement.

<u>CPT-4 Code</u>	<u>Description</u>
92920	Percutaneous transluminal coronary angioplasty; single major coronary artery or branch
92924	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch
92928	Percutaneous transcatheter placement of Intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch
92933	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch
92937	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single vessel

- 92941 Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed; single vessel
- 92943 Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; single vessel.
- 92944 each additional coronary artery, coronary artery branch, or bypass graft (Use 92944 in conjunction with 92924, 92928, 92933, 92937, 92941, 92943) (To report transcatheter placement of radiation delivery device for coronary intravascular brachytherapy, use 92974) For intravascular radioelement application, see 77785 – 77787)

The following CPT-4 codes must be billed with modifiers Left Main (LM), Ramus Intermedius (RI), Left Anterior Descending (LD), Right Coronary (RC) or Left Circumflex (LC).

CPT-4 Code	Description
92973	Percutaneous transluminal coronary thrombectomy, mechanical
92974	Transcatheter placement of radiation delivery device for subsequent coronary intravascular brachytherapy
92975	Thrombolysis, coronary; by intracoronary infusion, including selective coronary angiography
92977	by intravenous infusion
92978	Intravascular ultrasound during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; initial vessel
92979	each additional vessel

Major Coronary Vessels

The major coronary arteries are the LM, LD, LC, RC and RI. CPT-4 codes 92920, 92924, 92928, 92933, 92937, 92941 and 92943 require modifiers LM, LD, LC, RC and RI. All PCI procedures performed in all segments (proximal, mid, distal) of a single major coronary artery through the native coronary circulation are reported with one code. When one segment of a major coronary artery is treated through the native circulation and treatment of another segment of the same artery requires access through a coronary artery bypass graft, the intervention through the bypass graft is reported separately.

Coronary Artery Branches Up to two coronary artery branches of the left anterior descending (diagonals), left circumflex (marginals), and right (posterior descending, posterolaterals) coronary arteries are recognized. Reimbursement for the add-on codes 92921, 92925, 92929, 92938, and 92944 are bundled into their respective base codes and are not separately reimbursable. Claims for these codes will be denied.

Arterial Mechanical Thrombectomy Reimbursement for more than three vessels for CPT-4 code 37185 (arterial mechanical thrombectomy, subsequent vessels) on a single date of service requires medical justification. This must be documented in the *Remarks* field (Box 80)/*Additional Claim Information* field (Box 19) of the claim.

Second Cardiac Catheterization: Same Day A second cardiac catheterization session and/or coronary intervention procedure may be reimbursed when performed on the same day if medically necessary and documentation for the second procedure(s) is supplied in the *Remarks* field (Box 80)/*Additional Claim Information* field (Box 19) of the claim or on an attachment.

Percutaneous Transluminal Pulmonary Artery Balloon Angioplasty Medi-Cal covers percutaneous transluminal pulmonary artery balloon angioplasty for the treatment of pulmonary artery stenosis in recipients less than 21 years of age.

CPT-4	
<u>Code</u>	<u>Description</u>
92997	Percutaneous transluminal pulmonary artery balloon angioplasty; single vessel
92998	each additional vessel (List separately in addition to code for primary procedure)

Cardiac Catheterization

CPT-4 codes 93451 – 93462 are used to bill for cardiac catheterization services as follows. These procedures require a TAR.

<u>CPT-4 Code</u>	<u>Description</u>
* 93451	Right heart catheterization including measurement(s) of oxygen saturation and cardiac output, when performed
* 93452	Left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed
* 93453	Combined right and left heart catheterization including intraprocedural injection(s) for left ventriculography, imaging supervision and interpretation, when performed
* 93454	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation
* 93455	with catheter placement(s) in bypass graft(s) (internal mammary, free arterial venous grafts) including intraprocedural injection(s) for bypass graft angiography
* 93456	with right heart catheterization
* 93457	with catheter placement(s) in bypass graft(s) (internal mammary, free arterial venous grafts) including intraprocedural injection(s) for bypass graft angiography and right heart catheterization
* 93458	with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
* 93459	with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial venous grafts) with bypass graft angiography

- * 93460 with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
- * 93461 with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial venous grafts) with bypass graft angiography
- 93462 Left heart catheterization by transseptal puncture through intact septum or by transapical puncture
- 93563 Injection procedure during cardiac catheterization including imaging supervision, interpretation and report; for selective angiography during congenital heart catheterization
- * 93564 for selective opacification of aortocoronary venous or arterial bypass graft(s) to one or more coronary arteries and in situ arterial conduits
- 93565 for selective left ventricular or left angiography
- 93566 for selective right ventricular or right angiography
- 93567 for supraaortic aortography
- 93568 for pulmonary angiography
- 93582 Percutaneous transcatheter closure of patent ductus arteriosus
- 93583 Percutaneous transcatheter septal reduction therapy (eg, alcohol septal ablation) including temporary pacemaker insertion when performed
- * **Note:** These codes are split-billable. When billing for both the professional and technical service components, a modifier is neither required nor allowed. When billing for only the professional component, use modifier 26. When billing for only the technical component, use modifier TC.

**Intensive Behavioral
Therapy HCPCS Code
G0466**

For information about intensive behavioral therapy to reduce cardiovascular disease risk (HCPCS code G0466), refer to the *Preventive Services* section in this manual.