Cardiology

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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® Codes Not Reimbursable with Split-Bill Modifiers

CPT codes 93000, 93015, 93040, 93224, 93268 thru 93272 and ‹‹93355›› (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 codes to indicate the professional or technical component separately.

For example, when billing for CPT 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 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.)

Table of CPT Code Components

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

CPT Codes 93040, 93041 and 93042:

Combined Technical and Professional Components.

ECG Procedure Sets and Component Tests

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

Table of CPT Code Component Tests

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

The complete testing codes 93000, 93015, 93040 and 93224 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 any 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 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 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.

Table of ECG CPT Codes

CPT Code	Description
93000	‹‹Electrocardiogram, routine ECG with at least 12 leads; with interpretation and report››
93010	‹‹Electrocardiogram, routine ECG with at least 12 leads; interpretation and report only››
93040	Rhythm ECG, 1-3 leads; with interpretation and report
93041	Rhythm ECG, 1-3 leads; tracing only without interpretation and report
93042	Rhythm ECG, 1-3 leads; interpretation and report only
93241	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; includes recording, scanning analysis with report, review and interpretation
93242	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; recording (includes connection and initial recording)
93243	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; scanning analysis with report
93244	External electrocardiographic recording for more than 48 hours up to 7 days by continuous rhythm recording and storage; review and interpretation
93245	External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; includes recording, scanning analysis with report, review and interpretation
93246	External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; recording (includes connection and initial recording)
93247	External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; scanning analysis with report
93248	External electrocardiographic recording for more than 7 days up to 15 days by continuous rhythm recording and storage; review and interpretation

CPT Code 93225 Not Reimbursable with Critical Care Codes

CPT 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.

CPT Code 93227: Reimbursable with Critical Care Codes

CPT code 93227 (48-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 *Remarks* field (Box 80)/*Additional Claim Information* field (Box 19) of the claim.

Frequency Limits CPT Codes 93228 and 93229

CPT codes 93228 and 93229 (wearable mobile cardiovascular telemetry with electrocardiographic recording) may be billed once per 30 days.

Echocardiographic Procedures

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

Table of Echocardiographic Procedure CPT Codes

CPT Code	Description
93303	Transthoracic echocardiography for congenital cardiac anomalies; complete
93304	Transthoracic echocardiography for congenital cardiac anomalies; 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	Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, 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

Table of Echocardiographic Procedure CPT Codes (continued)

CPT Code	Description
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	Doppler echocardiography, pulsed wave and/or continuous wave with spectral display (List separately in addition to codes for echocardiographic imaging); 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)
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 thru 93018 series should be reported in addition to 93350 to capture the exercise stress portion of the study.)
93351	Echocardiography, transthoracic, real-time with image documentation (2D), includes M-mode recording, when performed, during rest and cardiovascular stress test using treadmill, bicycle exercise and/or pharmacologically induced stress, with interpretation and report; including performance of continuous electrocardiographic monitoring, with supervision by a physician or other qualified health care professional
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 Codes 93306 and 93307

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

CPT Codes 93307 and 93350

CPT 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 Codes 93308,93320 and 93321

CPT 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

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 code 93325 may be billed by the same provider for the same recipient and date of service as codes 93320 and 93321.

Note: Claims for Doppler echocardiography (CPT codes 93320 and 93321) must be billed with an appropriate ICD-10-CM diagnosis code and are reimbursable only if a report is submitted with the claim.

Required Echocardiographic Training

Echocardiographic codes are to be billed only by providers who have had at least six months of dedicated training in an established echocardiographic laboratory.

Echocardiography Contrast Agents

Perflutren protein-type A microspheres, perflutren lipid microspheres and sulfur hexafluoride lipid microspheres 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.

Dosage

Table of Dosage Amounts

HCPCS Code	Dosage Amount
Q9956	The maximum dose is 9 ml.
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.

Billing

Table of HCPCS Codes

HCPCS Code	Description	‹‹**Additional Information**››
Q9950	Injection, sulfur hexafluoride lipid microspheres, per ml	‹‹Must be billed "By Report"››
Q9956	Injection, octafluoropropane microspheres, per ml	‹‹N/A››
Q9957	Injection, perflutren lipid microspheres, per ml	‹‹N/A››

Arterial Pressure Waveform Analysis

Arterial pressure waveform analysis is reimbursable with CPT code 93050 (arterial pressure waveform analysis for assessment of central arterial pressures, includes obtaining waveform[s], digitization and application of nonlinear mathematical transformations to determine central arterial pressures and augmentation index, with interpretation and report, upper extremity artery, non-invasive). Code 93050 has a frequency limit of four per year for any provider.

Code 93050 may be split-billed with modifiers 26 and TC. When billing for both the professional and technical components, a modifier is neither required nor allowed.

Electrocardiography (ECG) with Telephone Link

When a telephone link is used for a cardiogram (ECG), where a mounted tracing and interpretation are returned to the provider, CPT code 93000 should be used. Such a procedure is not a phonocardiogram.

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.

Cardiovascular Stress Testing/Holter Monitoring

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

Table of Cardiovascular Stress Testing/Holter Monitoring CPT Codes

CPT Code	Description
93000 thru 93010	Electrocardiogram
93015 thru 93018	Cardiovascular stress testing
93224 thru 93227, 93268	Holter monitoring

CPT Codes 93000 thru 93010 Not Reimbursable with Code 93015

Codes 93000 thru 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 thru 93010 have already been paid to the same provider, for the same recipient and date of service.

CPT Codes 93016 thru 93018 Not Reimbursable with Code 93015

Codes 93016 thru 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 thru 93018 were paid to any provider, for the same recipient and date of service.

Ambulatory Blood Pressure Monitoring

The following CPT codes are reimbursable for ambulatory blood pressure monitoring (ABPM):

Table of ABPM CPT Codes

CPT Code	Description
93784	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; including recording, scanning analysis, interpretation and report
93786	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; recording only
93788	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; scanning analysis with report
93790	Ambulatory blood pressure monitoring, utilizing report-generating software, automated, worn continuously for 24 hours or longer; review with interpretation and report

ABPM is a benefit for the following conditions with no TAR requirement for patients seen in an outpatient facility only. The frequency limit is two times a year for the same patient, any provider.

- For patients with suspected white coat hypertension, which is defined as an average office blood pressure between 130 mm Hg and 160 mm Hg for systolic blood pressure or between 80 mm Hg and 100 mm Hg for diastolic blood pressure on two separate clinic/office visits with at least two separate measurements made at each visit and with at least two blood pressure measurements taken outside the office which are less than 130/80 mm Hg.
- For patients with suspected masked hypertension, which is defined as an average office blood pressure between 120 mm Hg and 129 mm Hg for systolic blood pressure or between 75 mm Hg and 79 mm Hg for diastolic blood pressure on two separate clinic/office visits with at least two separate measurements made at each visit and with at least two blood pressure measurements taken outside the office which are 130/80 mm Hg or more.
- Hypotensive symptoms while taking antihypertensive medications
- Autonomic dysfunction

ABPM devices must be:

- Capable of producing standardized plots of blood pressure measurements for 24 hours with daytime and night-time windows and normal blood pressure bands demarcated;
- Provided to patients with oral and written instructions and a test run in the physician’s office must be performed; and
- Interpreted by a Medi-Cal approved provider.

Cardiovascular Device Monitoring – Implantable and Wearable Devices

‹‹The following CPT and HCPCS codes are reimbursable for cardiovascular device monitoring of implantable devices.

Table of Cardiovascular Device Monitoring Devices Procedure Codes››

‹‹**Procedure Code**››	**Description**
93260	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; implantable subcutaneous lead defibrillator system
93261	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; implantable subcutaneous lead defibrillator system
93264	Remote monitoring of a wireless pulmonary artery pressure sensor for up to 30 days, including at least weekly downloads of pulmonary artery pressure recordings, interpretation(s), trend analysis, and report(s) by a physician or other qualified health care professional
93279	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optional permanent programmed values with analysis, review and report by a physician or other qualified health professional; single lead pacemaker system or leadless pacemaker system in one cardiac chamber
93280	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; dual lead pacemaker system
93281	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; multiple lead pacemaker system
93282	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; single lead transvenous implantable defibrillator system

‹‹Table of Cardiovascular Device Monitoring Devices Procedure Codes (continued)››

‹‹Procedure Code››	**Description**
93283	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; dual lead transvenous implantable defibrillator system
93284	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; multiple lead transvenous implantable defibrillator system
93285	Programming device evaluation (in person) with iterative adjustment of the implantable device to test the function of the device and select optimal permanent programmed values with analysis, review and report by a physician or other qualified health care professional; subcutaneous cardiac rhythm monitor system
93286	Peri-procedural device evaluation (in person) and programming of device system parameters before or after a surgery, procedure, or test with analysis, review and report by a physician or other qualified health care professional; single, dual, or multiple lead pacemaker system, or leadless pacemaker system
93287	Peri-procedural device evaluation (in person) and programming of device system parameters before or after a surgery, procedure, or test with analysis, review and report by a physician or other qualified health care professional; single, dual, or multiple lead implantable defibrillator system
93288	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; single, dual, or multiple lead pacemaker system, or leadless pacemaker system
93289	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; single, dual, or multiple lead transvenous implantable defibrillator system, including analysis of heart rhythm derived data elements
93290	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; implantable cardiovascular physiologic monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors

‹‹**Table of Cardiovascular Device Monitoring Devices Procedure Codes (continued)**››

‹‹**Procedure Code**››	**Description**
93291	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; subcutaneous cardiac rhythm monitor system, including heart rhythm derived data analysis
93292	Interrogation device evaluation (in person) with analysis, review and report by a physician or other qualified health care professional, includes connection, recording and disconnection per patient encounter; 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
93294	Interrogation device evaluations(s) (remote), up to 90 days; single, dual, or multiple lead peacemaker system, or leadless pacemaker system with interim analysis, review(s) and reports(s) by a physician or other qualified health care professional
93295	Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead implantable defibrillator system with interim analysis, review(s) and report(s) by a physician or other qualified health care professional
93296	Interrogation device evaluation(s) (remote), up to 90 days; single, dual, or multiple lead pacemaker system, leadless pacemaker system, or implantable 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 physiologic monitor system, including analysis of 1 or more recorded physiologic cardiovascular data elements from all internal and external sensors, analysis, review(s) and report(s) by a physician or other qualified health care professional

‹‹**Table of Cardiovascular Device Monitoring Devices Procedure Codes (continued)**››

‹‹**Procedure Code**››	**Description**
93298	Interrogation device evaluation(s), (remote) up to 30 days; subcutaneous cardiac rhythm monitor system, including analysis of recorded heart rhythm data, analysis, review(s) and report(s) by a physician or other qualified health care professional
‹‹G2066	Interrogation device evaluation(s), (remote) up to 30 days; implantable cardiovascular physiologic monitor system, implantable loop recorder system, or subcutaneous cardiac rhythm monitor system, remote data acquisition(s), receipt of transmissions and technician review, technical support and distribution of results››

CPT code 93293 and codes 93294 thru 93296 may be billed once per 90 days.

CPT codes 93264, 93297 and 93298 may be billed once per 30 days.

‹‹HCPCS code G2066 may be billed once every 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 code 93024 “By Report” Procedure

Providers should use CPT 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 codes 93619 thru 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:

Table of Intracardiac Electrophysiological Procedure CPT Codes

CPT Code	Description
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 thru 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	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with left atrial pacing and recording from coronary sinus or left atrium (List separately in addition to code for primary procedure)
93622	Comprehensive electrophysiologic evaluation including insertion and repositioning of multiple electrode catheters with induction or attempted induction of arrhythmia; with left ventricular pacing and recording (List separately in addition to code for primary procedure)
93644 *	Electrophysiologic evaluation of subcutaneous implantable defibrillator (includes defibrillation threshold evaluation, induction of arrhythmia, evaluation of sensing for arrhythmia termination, and programming or reprogramming of sensing or therapeutic parameters)
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 ithmus or other single atrial focus or source of atrial re-entry (Do not report 93653 in conjunction with 93600 thru 93603, 93610, 93612, 93618 thru 93620, 93642, 93654)

Table of Intracardiac Electrophysiological Procedure CPT Codes (continued)

CPT Code	Description
93654	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 bundle recording (when necessary) with intracardiac catheter ablation of arrhythmogenic focus; 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
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 transseptal 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 thru 93284, 93286 thru 93289, 93462, 93600, 93602, 93603, 93610, 93612, 93618 thru 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 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) code book for specifics on which codes may or may not be billed together.

A TAR will not override the policy in the CPT code book.

Transesophageal Echocardiography (TEE) Codes

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

- Only one of the following CPT 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 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 codes 93312, 93315 and 93318 is four per year, per recipient, by any provider.

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.

Indications

Medi-Cal has developed guidelines for appropriate use and reimbursement of WCD is indicated as an interim therapy for patients with a high risk for sudden cardiac death who meet one of the following criteria:

- 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
- 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
- Either documented myocardial infarction or dilated cardiomyopathy and a left ventricular ejection fraction equal to or less than 0.35
- A previously implanted defibrillator that now requires removal

Authorization Required

Refer to *Durable Medical Equipment (DME): An Overview* for details regarding DME prescriptions. Reimbursement for WCD requires an approved *Treatment Authorization Request* (TAR) Approval will be limited to one month up to a maximum of three months. Reauthorization for HCPCS codes K0606 beyond one months of therapy requires another TAR with the following documentation:

- A face-to-face clinical re-evaluation by the treating cardiologist with documentation of medical necessity, and
- Objective evidence of adherence to use (defined as use of WCD for more than 20 hours daily) of WCD, reviewed by the treating cardiologist and included in the submitted TAR.

Note: Documentation of adherence to WCD shall be accomplished through direct download or visual inspection of usage data with documentation provided in a written report format to be reviewed by the cardiologist and included in the patient's medical record.

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 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.

The following CPT codes require an approved TAR for reimbursement.

Table of PCI Procedure CPT Codes

CPT Code	Description
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	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; each additional coronary artery, coronary artery branch, or bypass graft (List separately in addition to code for primary procedure)

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

Table of CPT Codes

CPT 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	Thrombolysis, coronary; by intravenous infusion
92978	Endoluminal imaging of coronary vessel or graft using intravascular ultrasound or optical coherence tomography during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; initial vessel
92979	Endoluminal imaging of coronary vessel or graft using intravascular ultrasound (IVUS) or optical coherence tomography (OCT) during diagnostic evaluation and/or therapeutic intervention including imaging supervision, interpretation and report; each additional vessel (List separately in addition to code for primary procedure)

Major Coronary Vessels

The major coronary arteries are the LM, LD, LC, RC and RI. CPT codes 92920, 92924, 92928, 92933, 92937, 92941 and 92943 require modifiers LM, LD, LC, RC and RI. Modifier 53 is also allowed. Modifiers 22 and 99 are only allowed for 92924, 92925, 92933, 92937, 92941 and 92943. 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 code 37185 (primary percutaneous transluminal mechanical thrombectomy, noncoronary nonintracranial, arterial or arterial bypass graft, including fluoroscopic guidance and intraprocedural pharmacological thrombolytic injection(s); second and all subsequent vessel(s) within the same vascular family) 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.

Intravascular Ultrasound Services

Intravascular ultrasound services are reimbursable with CPT codes 37252 (intravascular ultrasound [noncoronary vessel] during diagnostic evaluation and/or therapeutic interpretation; initial noncoronary vessel) and 37253 (intravascular ultrasound [noncoronary vessel] during diagnostic evaluation and/or therapeutic intervention, including radiological supervision and interpretation; each additional non coronary vessel).

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.

Table of Percutaneous Transluminal Pulmonary Artery Balloon Angioplasty CPT Codes

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

Cardiac Catheterization

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

Table of Cardiac Catheterization CPT Codes

CPT Code	Description
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 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography
93456 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right heart catheterization
93457 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; 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 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed

Table of Cardiac Catheterization CPT Codes (continued)

CPT Code	Description
93459 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; 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 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed
93461 ¥	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; 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
93530	Right heart catheterization, for congenital cardiac anomalies
93531	Combined right heart catheterization and retrograde left heart catheterization, for congenital cardiac anomalies
93532	Combined right heart catheterization and transseptal left heart catheterization through intact septum with or without retrograde left heart catheterization, for congenital cardiac anomalies
93533	Combined right heart catheterization and transseptal left heart catheterization through existing septal opening, with or without retrograde left heart catheterization, for congenital cardiac anomalies
93563	Injection procedure during cardiac catheterization including imaging supervision, interpretation and report; for selective angiography during congenital heart catheterization
93564 ¥	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for selective opacification of aortocoronary venous or arterial bypass graft(s) (eg, aortocoronary saphenous vein, free radial artery, or free mammary artery graft) to one or more coronary arteries and in situ arterial conduits (eg, internal mammary), whether native or used for bypass to one or more coronary arteries during congenital heart catheterization, when performed (List separately in addition to code for primary procedure)

Table of Cardiac Catheterization CPT Codes (continued)

CPT Code	Description
93565	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for selective left ventricular or left atrial angiography (List separately in addition to code for primary procedure)
93566	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for selective right ventricular or right atrial angiography (List separately in addition to code for primary procedure)
93567	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for supravalvular aortography (List separately in addition to code for primary procedure)
93568	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for pulmonary angiography (List separately in addition to code for primary procedure)
93582	Percutaneous transcatheter closure of patent ductus arteriosus
93583	Percutaneous transcatheter septal reduction therapy (e.g., alcohol septal ablation) including temporary pacemaker insertion when performed
93590	Percutaneous transcatheter closure of paravalvular leak; initial occlusion device, mitral valve
93591	Percutaneous transcatheter closure of paravalvular leak; initial occlusion device, aortic valve
93592	Percutaneous transcatheter closure of paravalvular leak; each additional occlusion device (List separately in addition to code for primary procedure)

Note: CPT codes 93590 thru 93592 do not require a TAR

Cardiovascular Rehabilitation

For information about cardiovascular rehabilitation/intensive cardiovascular rehabilitation, refer to the “Cardiovascular Rehabilitation” heading in the *Rehabilitative Services* section in the *Outpatient Services – Rehabilitation Clinics* provider manual.

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.

Legend

Symbols used in the document above are explained in the following table.

Symbol	Description
‹‹	This is a change mark symbol. It is used to indicate where on the page the most recent change begins.
››	This is a change mark symbol. It is used to indicate where on the page the most recent change ends.
*	CPT code 93644 is split-billable, and must be billed with modifiers 26 and TC. No modifier is required if billing for the global service. Modifier 99 is allowed.
¥	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.