Aetna considers outpatient cardiac rehabilitation medically necessary as described below.

The following selection criteria represent implementation of guidelines established by the American College of Physicians, the American College of Cardiology, and the Agency for Healthcare Research and Quality (AHRQ) Health Technology Assessment.

Eligibility:

Aetna considers a medically supervised outpatient Phase II cardiac rehabilitation program medically necessary for selected members when it is individually prescribed by a physician within a 12-month window after any of the following:

1. Acute myocardial infarction; or
2. Chronic stable angina pectoris unresponsive to medical therapy which prevents the member from functioning optimally to meet domestic or occupational needs (particularly with modifiable coronary risk factors or poor
exercise tolerance); or
3. Coronary artery bypass grafting (coronary bypass surgery, CABG); or
4. Heart transplantation or heart-lung transplantation; or
5. Major pulmonary surgery, great vessel surgery, or MAZE arrhythmia surgery; or
6. Percutaneous coronary vessel remodeling (i.e., angioplasty, atherectomy, stenting); or
7. Placement of a ventricular assist device; or
8. Sustained ventricular tachycardia or fibrillation, or survivors of sudden cardiac death; or
9. Valve replacement or repair; or
10. Stable congestive heart failure (CHF) with left ventricular ejection fraction (LVEF) of 35% or less and New York Heart Association (NYHA) class II to IV symptoms despite being on optimal heart failure therapy for at least 6 weeks; stable CHF is defined as CHF in persons who have not had recent (less than or equal to 6 weeks) or planned (less than or equal to 6 months) major cardiovascular hospitalizations or procedures.

Cardiac rehabilitation programs are not recommended and are considered experimental and investigational for individuals with coronary artery disease (CAD) who have the following conditions:

- Acute pericarditis or myocarditis; or
- Acute systemic illness or fever; or
- Forced expiratory volume less than 1 liter; or
- Moderate to severe aortic stenosis; or
- New-onset atrial fibrillation; or
- Progressive worsening of exercise tolerance or dyspnea at rest or on exertion over the previous 3 to 5 days; or
- Recent embolism or thrombophlebitis; or
- Significant ischemia at low work rates (less than 2 METs, or metabolic equivalents); or
- Third-degree heart block without pacemaker; or
- Uncontrolled diabetes.
Aetna considers cardiac rehabilitation experimental and investigational for all other indications (e.g., individuals who are too debilitated to exercise, postural tachycardia syndrome, and secondary prevention after transient ischemic attack or mild, non-disabling stroke) because of insufficient evidence in the peer-reviewed literature.

**Frequency and Duration**

The medically necessary frequency and duration of cardiac rehabilitation is determined by the member’s level of cardiac risk stratification:

I. High-risk members have *any* of the following:

- Decrease in systolic blood pressure of 15 mm Hg or more with exercise; or
- Exercise test limited to less than or equal to 5 METS; or
- Marked exercise-induced ischemia, as indicated by either anginal pain or 2 mm or more ST depression by electrocardiography (ECG); or
- Recent myocardial infarction (less than 6 months) which was complicated by serious ventricular arrhythmia, cardiogenic shock or CHF; or
- Resting complex ventricular arrhythmia; or
- Severely depressed left ventricular function (LVEF less than 30 %); or
- Survivor of sudden cardiac arrest; or
- Ventricular arrhythmia appearing or increasing with exercise or occurring in the recovery phase of stress testing.

**Program Description for High-Risk Members:**

- 36 sessions (e.g., 3 times per week for 12 weeks) of supervised exercise with continuous telemetry monitoring
- Create an individual out-patient exercise program that can be self-monitored and maintained
Educational program for risk factor/stress reduction

If no clinically significant arrhythmia is documented during the first 3 weeks of the program, the provider may have the member complete the remaining portion without telemetry monitoring.

II. Intermediate-risk members have any of the following:

- Exercise test limited to 6 to 9 METS; or
- Ischemic ECG response to exercise of less than 2 mm of ST depression; or
- Uncomplicated myocardial infarction, coronary artery bypass surgery, or angioplasty and has a post-cardiac event maximal functional capacity of 8 METS or less on ECG exercise test.

Program Description for Intermediate-Risk Members:

- 24 sessions or less of exercise training without continuous ECG monitoring (see exit criteria below, as some members may only require fewer than 3 weekly visits and/or less than 8 weeks)*
- Geared to define an ongoing exercise program that is "self-administered."

III. Low-risk members have exercise test limited to greater than 9 METS

Program Description for Low-Risk Members:

- 6 1-hour sessions involving risk factor reduction education and supervised exercise to show safety and define a home program (e.g., 3 times per week for a total of 2 weeks or 2 sessions per week for 3 weeks).

Aetna considers additional cardiac rehabilitation services medically necessary based on the above-listed criteria when the member has any of the following conditions:
1. Another cardiovascular surgery or angioplasty; or
2. Another documented myocardial infarction or extension of initial infarction; or
3. New clinically significant coronary lesions documented by cardiac catheterization; or
4. New evidence of ischemia on an exercise test, including thallium scan.

* Supervision by a physician or other qualified health care professional is of no proven value for non-EKG monitored cardiac rehabilitation and is therefore considered experimental and investigational because of insufficient evidence in the peer-reviewed literature.

**Note:** Phase III and Phase IV cardiac rehabilitation programs (see background section) are not covered under standard Aetna benefit plans as these programs are considered educational and training in nature. Education and training programs are generally not covered under most Aetna benefit plans. Please check benefit plan descriptions.

**Background**

Patients who have cardiovascular events are often functional in society and employed prior to a cardiac event, and frequently require only re-entry into their former life pattern. Cardiac rehabilitation serves this purpose by providing a supervised program in the outpatient setting that involves medical evaluation, an ECG-monitored physical exercise program, cardiac risk factor modification, education, and counseling.

Cardiac rehabilitation is designed to help individuals with conditions such as heart or vascular disease return to a healthier and more productive life. This includes individuals who have had heart attacks, open heart surgery, stable angina, vascular disease or other cardiac related health problems.

Traditionally, cardiac rehabilitation programs have been classified into 4 phases, phase I to IV, representing a progression from the hospital (phase I) to a medically...
supervised out-patient program (phases II and III) to a community or home-based setting (phase IV). Phase I cardiac rehabilitation begins in the hospital (inpatient) after experiencing a heart attack or other major heart event. During this phase, individuals receive education and nutritional counseling to prepare them for discharge. Phase II outpatient cardiac rehabilitation begins after leaving the hospital. As described by the U.S. Public Health Service, it is a comprehensive, long-term program including medical evaluation, prescribed exercise, cardiac risk factor modification, education and counseling. Phase II refers to medically supervised programs that typically begin one to three weeks after discharge and provide appropriate electrocardiographic monitoring. Phase III cardiac rehabilitation utilizes a supervised program that encourages exercise and healthy lifestyle and is usually performed at home or in a fitness center with the goal of continuing the risk factor modification and exercise program learned in phase II. Phase IV cardiac rehabilitation is based on an indefinite exercise maintenance program. These programs encourage a commitment to regular exercise and healthy habits for risk factor modification to establish lifelong cardiovascular fitness. Some programs combine phases III and IV.

Due to changes in hospital and health care practices, and the need to accommodate patients at various stages of disease risk, some have argued that the need for phase designation becomes inappropriate, and that cardiac rehabilitation programs can be more appropriately distinguished as inpatient, outpatient or community/home-based programs. Participation within these programs is determined by appropriate risk stratification in order to maximize health care resources and patient benefit. Irrespective of the program, there should be regular communication, in the form of progress reports, between the program staff and the patient’s attending physician (Ignaszewski and Lear, 1998).

Entry into such programs is based on the demonstrated limitation of functional capacity on exercise stress testing, and the expectation that medically supervised exercise training will
improve functional capacity to a clinically significant degree. The exercise test in cardiac rehabilitation is a vital component of the overall rehabilitative process as it provides continuous follow-up in a noninvasive manner and adds information to the overall physical evaluation. In general, testing is performed before entering the cardiac rehabilitation exercise program, and sequentially during the program to provide information on the changes in cardiac status, prognosis, functional capacity, and evidence of training effect. The central component of cardiac rehabilitation is a prescribed regimen of physical exercises intended to improve functional work capacity and to increase the patient's confidence and well-being. Depending on the degree of debilitation, cardiac patients may or may not require a full or supervised rehabilitation program.

The scientific literature documents that some of the benefits of participation in a cardiac rehabilitation program include decreased symptoms of angina pectoris, dyspnea, and fatigue, and improvement in exercise tolerance, blood lipid levels, and psychosocial well-being, as well as a reduction in weight, cigarette smoking and stress. The efficacy of modification of risk factors in reducing the progression of coronary artery disease and future morbidity and mortality has been established. Meta-analysis of data from random controlled studies indicates a 20% to 25% reduction in mortality in patients participating in cardiac rehabilitation following myocardial infarction as compared to controls.

The typical model for delivering outpatient cardiac rehabilitation in the United States is for patients to attend sessions 2 to 3 times per week for up to 12 to 18 weeks (36 total sessions) (CMS, 2006). A session typically lasts for approximately 1 hour and includes aerobic and/or resistance exercises with continuous electro-cardiographic monitoring. There are alternative approaches to this typical model. Patients can be classified as low-, moderate- or high-risk for participating in exercise based on a combination of clinical and functional data. The number of recommended supervised exercise sessions varies by risk level: low-risk patients receive 6
to 18 exercise sessions over 30 days or less from the date of the cardiac event/procedure; moderate-risk 12 to 24 sessions over 60 days; and high-risk 18 to 36 sessions over 90 days (Hamm, 2008; AACVPR, 2004).

There is limited evidence on the appropriate duration of cardiac rehabilitation. Hammill et al (2010) stated that for patients with coronary heart disease, exercise-based cardiac rehabilitation improves survival rate and has beneficial effects on risk factors for coronary artery disease. However, the relationship between the number of sessions attended and long-term outcomes is unknown. In a national 5% sample of Medicare beneficiaries, these investigators identified 30,161 elderly patients who attended at least 1 cardiac rehabilitation session between January 1, 2000, and December 31, 2005. They used a Cox proportional hazards model to estimate the relationship between the number of sessions attended and death and myocardial infarction (MI) at 4 years. The cumulative number of sessions was a time-dependent co-variante. After adjustment for demographical characteristics, co-morbid conditions, and subsequent hospitalization, patients who attended 36 sessions had a 14% lower risk of death (hazard ratio [HR], 0.86; 95% confidence interval [CI]: 0.77 to 0.97) and a 12% lower risk of MI (HR, 0.88; 95% CI: 0.83 to 0.93) than those who attended 24 sessions; a 22% lower risk of death (HR, 0.78; 95% CI: 0.71 to 0.87) and a 23% lower risk of MI (HR, 0.77; 95% CI: 0.69 to 0.87) than those who attended 12 sessions; and a 47% lower risk of death (HR, 0.53; 95% CI: 0.48 to 0.59) and a 31% lower risk of MI (HR, 0.69; 95% CI: 0.58 to 0.81) than those who attended 1 session. The authors concluded that among Medicare beneficiaries, a strong dose-response relationship existed between the number of cardiac rehabilitation sessions and long-term outcomes. Attending all 36 sessions reimbursed by Medicare was associated with lower risks of death and MI at 4 years compared with attending fewer sessions.

Prior and colleagues (2011) tested feasibility and effectiveness of 6-month outpatient comprehensive cardiac rehabilitation
(CCR) for secondary prevention after transient ischemic attack or mild, non-disabling stroke. Consecutive consenting subjects having sustained a transient ischemic attack or mild, non-disabling stroke within the previous 12 months (mean of 11.5 weeks; event-to-CCR entry) with greater than or equal to 1 vascular risk factor, were recruited from a stroke prevention clinic providing usual care. These researchers measured 6-month CCR outcomes following a prospective cohort design. Of 110 subjects recruited from January 2005 to April 2006, 100 subjects (mean age of 64.9 years; 46 women) entered and 80 subjects completed CCR. These investigators obtained favorable, significant intake-to-exit changes in: aerobic capacity (+31.4%; p < 0.001), total cholesterol (-0.30 mmol/L; p = 0.008), total cholesterol/high-density lipoprotein (-11.6%; p < 0.001), triglycerides (-0.27 mmol/L; p = 0.003), waist circumference (-2.44 cm; p < 0.001), body mass index (-0.53 kg/m²; p = 0.003), and body weight (-1.43 kg; p = 0.001). Low-density lipoprotein (-0.24 mmol/L), high-density lipoprotein (+0.06 mmol/L), systolic (-3.21 mm Hg) and diastolic (-2.34 mm Hg) blood pressure changed favorably, but non-significantly. A significant shift toward non-smoking occurred (p = 0.008).

Compared with intake, 11 more individuals (25.6% increase) finished CCR in the lowest mortality risk category of the Duke Treadmill Score (p < 0.001). The authors concluded that CCR is feasible and effective for secondary prevention after transient ischemic attack or mild, non-disabling stroke, offering a promising model for vascular protection across chronic disease entities. The authors stated that they know of no similar previous investigation, and are now conducting a randomized trial.

Pack et al (2013) noted that outpatient CR decreases mortality rates but is under-utilized. Current median time from hospital discharge to enrollment is 35 days. These researchers hypothesized that an appointment within 10 days would improve attendance at CR orientation. At hospital discharge, 148 patients with a non-surgical qualifying diagnosis for CR were randomized to receive a CR orientation appointment either within 10 days (early) or at 35 days (standard). The
primary end-point was attendance at CR orientation. Secondary outcome measures were attendance at greater than or equal to 1 exercise session, the total number of exercise sessions attended, completion of CR, and change in exercise training work-load while in CR. Average age was 60 ± 12 years; 56 % of participants were male and 49 % were black, with balanced baseline characteristics between groups. Median time (95 % CI) to orientation was 8.5 (7 to 13) versus 42 (35 to NA [not applicable]) days for the early and standard appointment groups, respectively (p < 0.001). Attendance rates at the orientation session were 77 % (57/74) versus 59% (44/74) in the early and standard appointment groups, respectively, which demonstrated a significant 18 % absolute and 56 % relative improvement (relative risk, 1.56; 95 % CI: 1.03 to 2.37; p = 0.022). The number needed to treat was 5.7. There was no difference (p > 0.05) in any of the secondary outcome measures, but statistical power for these end points was low.

Safety analysis demonstrated no difference between groups in CR-related adverse events. The authors concluded that early appointments for CR significantly improved attendance at orientation. This simple technique could potentially increase initial CR participation nationwide.

In a retrospective cohort study, Beauchamp et al (2013) examined if attendance at CR independently predicts all-cause mortality over 14 years and whether there is a dose-response relationship between the proportion of CR sessions attended and long-term mortality. The sample comprised 544 men and women eligible for CR following MI, coronary artery bypass surgery or percutaneous interventions. Participants were tracked 4 months after hospital discharge to ascertain CR attendance status. Main outcome measure was all-cause mortality at 14 years ascertained through linkage to the Australian National Death Index. In total, 281 (52 %) men and women attended at least 1 CR session. There were few significant differences between non-attenders and attenders. After adjustment for age, sex, diagnosis, employment, diabetes and family history, the mortality risk for non-attenders was 58 % greater than for attenders (HR = 1.58, 95 % CI: 1.16 to 2.15).
Participants who attended less than 25% of sessions had a mortality risk more than twice that of participants attending greater than or equal to 75% of sessions (OR = 2.57, 95% CI: 1.4 to 6.38). This association was attenuated after adjusting for current smoking (OR = 2.06, 95% CI: 0.80 to 5.29). The authors concluded that this study provided further evidence for the long-term benefits of CR in a contemporary, heterogeneous population. While a dose-response relationship may exist between the number of sessions attended and long-term mortality, this relationship does not occur independently of smoking differences. They stated that CR practitioners should encourage smokers to attend CR and provide support for smoking cessation.

The Centers for Medicare & Medicaid Services (CMS, 2014) has determined that the evidence is sufficient to expand coverage for cardiac rehabilitation services to beneficiaries with stable, chronic heart failure defined as patients with left ventricular ejection fraction of 35% or less and New York Heart Association (NYHA) class II to IV symptoms despite being on optimal heart failure therapy for at least 6 weeks. Stable patients are defined as patients who have not had recent (less than or equal to 6 weeks) or planned (less than or equal to 6 months) major cardiovascular hospitalizations or procedures.

Shibata et al (2012) stated that recent studies have suggested the presence of cardiac atrophy as a key component of the pathogenesis of the postural orthostatic tachycardia syndrome (POTS), similar to physical deconditioning. It has also been shown that exercise intolerance is associated with a reduced stroke volume (SV) in POTS, and that the high heart rate observed at rest and during exercise in these patients is due to this low SV. These researchers tested the hypotheses that (i) circulatory control during exercise is normal in POTS; and (ii) that physical “reconditioning” with exercise training improves exercise performance in patients with POTS. A total of 19 (18 women) POTS patients completed a 3 month training program. Cardiovascular responses during maximal exercise testing were assessed in the upright position before and after training.
Resting left ventricular diastolic function was evaluated by Doppler echocardiography. Results were compared with those of 10 well-matched healthy sedentary controls. A lower SV resulted in a higher heart rate in POTS at any given oxygen uptake (V(O(2))) during exercise while the cardiac output (Q(c))-V(O(2)) relationship was normal. V(O(2peak)) was lower in POTS than controls (26.1 ± 1.0 (SEM) versus 36.3 ± 0.9 ml kg⁻¹ min⁻¹; p < 0.001) due to a lower peak SV (65 ± 3 versus 80 ± 5 ml; p = 0.009). V(O(2peak)) increased by 11 % (p < 0.001) due to increased peak SV (p = 0.009) and was proportional to total blood volume. Peak heart rate was similar, but heart rate recovery from exercise was faster after training than before training (p = 0.036 for training and 0.009 for interaction). Resting diastolic function was mostly normal in POTS before training, though diastolic suction was impaired (p = 0.023). There were no changes in any Doppler index after training. The authors concluded that these results suggested that short-term exercise training improves physical fitness and cardiovascular responses during exercise in patients with POTS.

Benarroch (2012) noted that management of POTS includes avoidance of precipitating factors, volume expansion, physical counter-maneuvers, exercise training, pharmacotherapy (fludrocortisone, midodrine, beta-blockers, and/or pyridostigmine), and behavioral-cognitive therapy.

Although it can be argued that a structured exercise program for physical reconditioning may be beneficial for patients with POTS, it is unclear there is a need for a supervised cardiac rehabilitation program. Furthermore, an UpToDate review on “Postural tachycardia syndrome” (Freeman and Kaufman, 2014) does not mention cardiac rehabilitation as a management tool.

Gaalema et al (2015) noted that continued smoking after a cardiac event greatly increases mortality risk. Smoking cessation and participation in CR are effective in reducing morbidity and mortality. However, these 2 behaviors may interact; those who smoke may be less likely to access or complete CR. These researchers explored the association
between smoking status and CR referral, attendance, and adherence. They carried out a systematic literature search examining associations between smoking status and CR referral, attendance and completion in peer-reviewed studies published through July 1, 2014. For inclusion, studies had to report data on outpatient CR referral, attendance or completion rates and smoking status had to be considered as a variable associated with these outcomes. A total of 56 studies met inclusion criteria. A history of smoking was associated with an increased likelihood of referral to CR. However, smoking status also predicted not attending CR and was a strong predictor of CR drop-out. The authors concluded that continued smoking after a cardiac event predicts lack of attendance in, and completion of CR. The issue of smoking following a coronary event deserves renewed attention.

Huang et al (2015) examined the effectiveness of telehealth intervention-delivered CR compared with center-based supervised CR. Medline, Embase, the Cochrane Central Register of Controlled Trials (CENTRAL) in the Cochrane Library and the Chinese BioMedical Literature Database (CBM), were searched to April 2014, without language restriction. Existing randomized controlled trials (RCTs), reviews, relevant conference lists and gray literature were checked. Randomized controlled trials that compared telehealth intervention delivered CR with traditional center-based supervised CR in adults with CAD were included. Two reviewers selected studies and extracted data independently. Main clinical outcomes including clinical events, modifiable risk factors or other endpoints were measured. A total of 15 articles reporting 9 trials were reviewed, most of which recruited patients with MI or re-vascularization. No statistically significant difference was found between telehealth interventions delivered and center-based supervised CR in exercise capacity (standardized mean difference (SMD) -0.01; 95 % CI: -0.12 to 0.10), weight (SMD -0.13; 95 % CI: -0.30 to 0.05), systolic and diastolic blood pressure (SBP and DBP) (mean difference (MD) -1.27; 95 % CI: -3.67 to 1.13 and MD 1.00; 95 % CI: -0.42 to 2.43, respectively), lipid profile, smoking (risk ratio (RR) 1.03; 95 % CI: 0.78 to 1.38),
mortality (RR 1.15; 95% CI: 0.61 to 2.19), quality of life and psychosocial state. The authors concluded that telehealth intervention-delivered CR does not have significantly inferior outcomes compared to center-based supervised program in low-to-moderate risk CAD patients. Telehealth intervention offers an alternative delivery model of CR for individuals less able to access center-based CR. Choices should reflect preferences, anticipation, risk profile, funding, and accessibility to health service.

In a Cochrane review, Taylor et al (2015) compared the effect of home-based and supervised center-based CR on mortality and morbidity, health-related quality of life, and modifiable cardiac risk factors in patients with heart disease. To update searches from the previous Cochrane review, these investigators searched the Cochrane Central Register of Controlled Trials (CENTRAL, The Cochrane Library, Issue 9, 2014), MEDLINE (Ovid, 1946 to Week 1 of October, 2014), EMBASE (Ovid, 1980 to Week 41 of 2014), PsycINFO (Ovid, to Week 2 of October, 2014), and CINAHL (EBSCO, to October 2014). They checked reference lists of included trials and recent systematic reviews. No language restrictions were applied. The authors concluded that this updated review supports the conclusions of the previous version of this review that home- and center-based forms of CR seem to be equally effective for improving the clinical and health-related quality of life outcomes in low risk patients after MI or re-vascularization, or with HF. This finding, together with the absence of evidence of important differences in healthcare costs between the 2 approaches, supports the continued expansion of evidence-based, home-based CR programs. The choice of participating in a more traditional and supervised center-based program or a home-based program should reflect the preference of the individual patient. They stated that further data are needed to determine whether the effects of home- and center-based CR reported in these short-term trials can be confirmed in the longer term. A number of studies failed to give sufficient detail to assess their risk of bias.
Appendix

Note on Exit Criteria

The following clinical exit criteria have been identified as acceptable (CMS, 1989):

- Symptoms of angina or dyspnea are stable at the patient's maximum exercise level; and
- The patient has achieved a stable level of exercise tolerance without ischemia or dysrhythmia; and
- The patient's resting blood pressure and heart rate are within normal limits; and
- The stress test is not positive during exercise (A positive stress test in this context implies an ECG with a junctional depression of 2 mm or more associated with slowly rising, horizontal, or down sloping ST segment).

CPT Codes / HCPCS Codes / ICD-10 Codes

<table>
<thead>
<tr>
<th>Information in the [brackets] below has been added for clarification purposes. Codes requiring a 7th character are represented by &quot;+&quot;:</th>
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<tbody>
<tr>
<td>CPT codes covered if selection criteria are met:</td>
</tr>
<tr>
<td>93798</td>
</tr>
<tr>
<td>CPT codes not covered for indications listed in the CPB:</td>
</tr>
<tr>
<td>93797</td>
</tr>
<tr>
<td>Other CPT codes related to the CPB:</td>
</tr>
</tbody>
</table>
Cardiovascular stress test using maximal or submaximal treadmill or bicycle exercise, continuous electrocardiographic monitoring, and/or pharmacological stress; with physician supervision, with interpretation and report, or physician supervision only, without interpretation and report, or tracing only, without interpretation and report, or interpretation and report only

**HCPCS codes covered if selection criteria are met:**

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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>G0422</td>
<td>Intensive cardiac rehabilitation; with or without continuous ECG monitoring with exercise, per session [Ornish Cardiac Rehab Program] [not covered for Phase III or Phase IV]</td>
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<tr>
<td>G0423</td>
<td>Intensive cardiac rehabilitation; with or without continuous ECG monitoring; without exercise, per session [not covered for Phase III or Phase IV]</td>
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<tr>
<td>S9472</td>
<td>Cardiac rehabilitation program, non-physician provider, per diem [not covered for Phase III or Phase IV]</td>
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**Other HCPCS codes related to the CPB:**

<table>
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<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>S9449</td>
<td>Weight management classes, non-physician provider, per session</td>
</tr>
<tr>
<td>S9451</td>
<td>Exercise classes, non-physician provider, per session</td>
</tr>
<tr>
<td>S9452</td>
<td>Nutrition classes, non-physician provider, per session</td>
</tr>
<tr>
<td>S9453</td>
<td>Smoking cessation classes, non-physician provider, per session</td>
</tr>
<tr>
<td>S9454</td>
<td>Stress management classes, non-physician provider, per session</td>
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<tr>
<td>S9470</td>
<td>Nutritional counseling, dietitian visit</td>
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**ICD-10 codes covered if selection criteria are met:**

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<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>I02.0</td>
<td>Rheumatic chorea with heart involvement</td>
</tr>
<tr>
<td>I05.0 - I05.9</td>
<td>Rheumatic mitral, aortic, tricuspid, and multiple valve diseases</td>
</tr>
<tr>
<td>I06.1 - I08.9</td>
<td>Rheumatic heart failure (congestive)</td>
</tr>
<tr>
<td>I11.0</td>
<td>Hypertensive heart disease with heart failure</td>
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<tr>
<td>-------</td>
<td>---------------------------------------------</td>
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<tr>
<td>I13.0</td>
<td>Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4, chronic kidney disease, or unspecified chronic kidney disease</td>
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<td>I13.2</td>
<td>Hypertensive heart and chronic kidney disease with heart failure and stage 5 chronic kidney disease or end stage renal disease</td>
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<tr>
<td>I20.9</td>
<td>Angina pectoris, unspecified [stable]</td>
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<td>I21.01 - I25.9</td>
<td>Ischemic heart disease</td>
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<td>I34.0 - I34.9, I36.0 - I37.9</td>
<td>Nonrheumatic mitral, tricuspid and pulmonary valve disorders</td>
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<td>Ventricular fibrillation</td>
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<td>I49.02</td>
<td>Ventricular flutter</td>
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<td>Postprocedural cardiac functional disturbances</td>
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<td>Encounter for other specified aftercare</td>
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<td>Z94.2</td>
<td>Lung transplant status</td>
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<td>Z95.1</td>
<td>Presence of aortocoronary bypass graft</td>
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<tr>
<td>Z95.2</td>
<td>Presence of prosthetic heart valve</td>
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<tr>
<td>Z95.3</td>
<td>Presence of xenogenic heart valve</td>
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<td>Z95.4</td>
<td>Presence of other heart-valve replacement</td>
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<td>Z95.5</td>
<td>Presence of coronary angioplasty implant and graft</td>
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<td>Z95.811</td>
<td>Presence of heart assist device</td>
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<tr>
<td>Code</td>
<td>Description</td>
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<tr>
<td>Z95.812</td>
<td>Presence of fully implantable artificial heart</td>
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<tr>
<td>Z98.61</td>
<td>Coronary angioplasty status</td>
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<tr>
<td>Z98.89</td>
<td>Other specified postprocedural status [surgery to heart and great vessels]</td>
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**ICD-10 codes not covered for indications listed in the CPB (not all-inclusive):**

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<tr>
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<td>E13.9</td>
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<tr>
<td>I06.0</td>
<td>Rheumatic aortic stenosis [moderate to severe]</td>
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<td>I30.0 - I30.9</td>
<td>Acute pericarditis</td>
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<td>Nonrheumatic aortic valve disorder [moderate to severe]</td>
</tr>
<tr>
<td>I40.1 - I40.9</td>
<td>Acute myocarditis</td>
</tr>
<tr>
<td>I44.2</td>
<td>Atrioventricular block, complete [without pacemaker]</td>
</tr>
<tr>
<td>I48.0 - I48.2, I48.91</td>
<td>Atrial fibrillation [new onset]</td>
</tr>
<tr>
<td>I49.8</td>
<td>Other specified cardiac arrhythmias [postural tachycardia syndrome]</td>
</tr>
<tr>
<td>I74.01 - I74.9</td>
<td>Arterial embolism and thrombosis [recent]</td>
</tr>
<tr>
<td>I80.0 - I80.9</td>
<td>Phlebitis and thrombophlebitis [recent]</td>
</tr>
<tr>
<td>Q23.0</td>
<td>Congenital stenosis of aortic valve [moderate to severe]</td>
</tr>
<tr>
<td>Q23.3</td>
<td>Supravalvular aortic stenosis [moderate to severe]</td>
</tr>
<tr>
<td>R00.0</td>
<td>Tachycardia [postural]</td>
</tr>
<tr>
<td>R06.00 - R06.09</td>
<td>Dyspnea [progressive worsening at rest or on exertion over the previous three to five days]</td>
</tr>
<tr>
<td>R06.89</td>
<td>Other abnormalities of breathing [forced expiratory volume of less than one liter]</td>
</tr>
<tr>
<td>R50.81</td>
<td>Fever presenting with conditions classified elsewhere [systemic]</td>
</tr>
<tr>
<td>R50.9</td>
<td>Fever, unspecified [systemic]</td>
</tr>
</tbody>
</table>
The above policy is based on the following references:

2. Thompson DR, De Bono DP. How valuable is cardiac rehabilitation and who should get it? Heart. 1999;82(5):545-546.
20. Pina IL. Guidelines for clinical exercise testing laboratories. A statement for healthcare professionals from the Committee on Exercise and Cardiac


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72. American Association of Cardiovascular and Pulmonary Rehabilitation; American College of Cardiology Foundation; American Heart Association Task Force on Performance Measures (Writing Committee to Develop Clinical Performance Measures for Cardiac Rehabilitation), Thomas RJ, King M, Lui K, et al. AACVPR/ACCF/AHA 2010 Update: Performance Measures on Cardiac Rehabilitation for Referral to Cardiac Rehabilitation / Secondary Prevention Services Endorsed by the American College of Chest Physicians, the American College of Sports Medicine, the American Physical Therapy Association, the Canadian Association of Cardiac Rehabilitation, the Clinical Exercise Physiology Association, the European Association for Cardiovascular Prevention and Rehabilitation, the Inter-American Heart Foundation, the National Association of Clinical Nurse Specialists, the Preventive Cardiovascular Nurses Association, and the Society of Thoracic Surgeons. J Am Coll Cardiol. 2010;56(14):1159-1167.


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Amendment to
Aetna Clinical Policy Bulletin Number: 0021
Cardiac Rehabilitation

There are no amendments for Medicaid.