

# External Counterpulsation (ECP) Therapy for Severe Angina (NCD 20.20)

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[↪ Terms and Conditions](#)

Table of Contents	Page
<a href="#">Policy Summary</a> .....	1
<a href="#">Applicable Codes</a> .....	2
<a href="#">References</a> .....	2
<a href="#">Guideline History/Revision Information</a> .....	2
<a href="#">Purpose</a> .....	3
<a href="#">Terms and Conditions</a> .....	3

**Related Medicare Advantage Coverage Summary**

- [Cardiac Procedures: Pacemakers, Defibrillators and Pulmonary Artery Pressure Measurements](#)

## Policy Summary

[↪ See Purpose](#)

### Overview

External counterpulsation (ECP), commonly referred to as enhanced external counterpulsation, is a noninvasive outpatient treatment for coronary artery disease refractory to medical and/or surgical therapy. ECP devices are cleared by the Food and Drug Administration for use in treating a variety of cardiac conditions, including stable or unstable angina pectoris, cardiogenic shock and acute myocardial infarction, the use of this device to treat cardiac conditions other than stable angina pectoris is not covered, since only that use has developed sufficient evidence to demonstrate its medical effectiveness. Hydraulic versions of these types of devices are non-covered.

### Guidelines

#### Nationally Covered Indications

Coverage is provided for the use of ECP for patients who have been diagnosed with disabling angina (Class III or Class IV, Canadian Cardiovascular Society Classification or equivalent classification) who, in the opinion of a cardiologist or cardiothoracic surgeon, are not readily amenable to surgical intervention, such as PTCA or cardiac bypass, because:

- Their condition is inoperable, or at high risk of operative complications or post-operative failure;
- Their coronary anatomy is not readily amenable to such procedures; or
- They have co-morbid states which create excessive risk.

A full course of therapy usually consists of 35 one-hour treatments, which may be offered once or twice daily, usually 5 days per week. The patient is placed on a treatment table where their lower trunk and lower extremities are wrapped in a series of three compressive air cuffs which inflate and deflate in synchronization with the patient's cardiac cycle.

During diastole the three sets of air cuffs are inflated sequentially (distal to proximal) compressing the vascular beds within the muscles of the calves, lower thighs and upper thighs. This action results in an increase in diastolic pressure, generation of retrograde arterial blood flow and an increase in venous return. The cuffs are deflated simultaneously just prior to systole, which produces a rapid drop in vascular impedance, a decrease in ventricular workload and an increase in cardiac output.

The augmented diastolic pressure and retrograde aortic flow appear to improve myocardial perfusion, while systolic unloading appears to reduce cardiac workload and oxygen requirements. The increased venous return coupled with enhanced systolic flow appears to increase cardiac output. As a result of this treatment, most patients experience increased time until onset of ischemia, increased exercise tolerance, and a reduction in the number and severity of anginal episodes. Evidence was presented that this effect lasted well beyond the immediate post-treatment phase, with patients symptom-free for several months to two years. This procedure must be done under direct supervision of a physician.

### ***Nationally Non-Covered Indications***

All other cardiac conditions not otherwise specified as nationally covered for the use of ECP are nationally non-covered.

## **Applicable Codes**

The following list(s) of procedure and/or diagnosis codes is provided for reference purposes only and may not be all inclusive. Listing of a code in this guideline does not imply that the service described by the code is a covered or non-covered health service. Benefit coverage for health services is determined by the member specific benefit plan document and applicable laws that may require coverage for a specific service. The inclusion of a code does not imply any right to reimbursement or guarantee claim payment. Other Policies and Guidelines may apply.

HCPCS Code	Description
G0166	External counterpulsation, per treatment session

## **References**

### **CMS National Coverage Determinations (NCDs)**

[NCD 20.20 External Counterpulsation \(ECP\) Therapy for Severe Angina](#)

### **CMS Claims Processing Manual**

[Chapter 32; § 130 External Counterpulsation \(ECP\) Therapy, § 130.1 Billing and Payment Requirements](#)

### **CMS Transmittal(s)**

[Transmittal 898, Change Request 4350, Dated 03/31/2006 \(External Counterpulsation \(ECP\) Therapy\)](#)

[Transmittal 1580, Change Request 9252, Dated 12/03/2015 \(ICD-10 Conversion/Coding Infrastructure Revisions to National Coverage Determinations \(NCDs\)–3rd Maintenance CR\)](#)

### **MLN Matters**

[Article MM4350, External Counterpulsation \(ECP\) Therapy](#)

## **Guideline History/Revision Information**

Revisions to this summary document do not in any way modify the requirement that services be provided and documented in accordance with the Medicare guidelines in effect on the date of service in question.

Date	Summary of Changes
04/01/2021	<b>Template Update</b> <ul style="list-style-type: none"> <li>Reformatted policy; transferred content to new template</li> </ul>
06/10/2020	<ul style="list-style-type: none"> <li>Routine review; no change to guidelines</li> </ul> <b>Supporting Information</b> <ul style="list-style-type: none"> <li>Archived previous policy version MPG108.05</li> </ul>

## Purpose

The Medicare Advantage Policy Guideline documents are generally used to support UnitedHealthcare Medicare Advantage claims processing activities and facilitate providers' submission of accurate claims for the specified services. The document can be used as a guide to help determine applicable:

- Medicare coding or billing requirements, and/or
- Medical necessity coverage guidelines; including documentation requirements.

UnitedHealthcare follows Medicare guidelines such as NCDs, LCDs, LCAs, and other Medicare manuals for the purposes of determining coverage. It is expected providers retain or have access to appropriate documentation when requested to support coverage. Please utilize the links in the [References](#) section below to view the Medicare source materials used to develop this resource document. This document is not a replacement for the Medicare source materials that outline Medicare coverage requirements. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

## Terms and Conditions

The Medicare Advantage Policy Guidelines are applicable to UnitedHealthcare Medicare Advantage Plans offered by UnitedHealthcare and its affiliates.

These Policy Guidelines are provided for informational purposes, and do not constitute medical advice. Treating physicians and healthcare providers are solely responsible for determining what care to provide to their patients. Members should always consult their physician before making any decisions about medical care.

Benefit coverage for health services is determined by the member specific benefit plan document\* and applicable laws that may require coverage for a specific service. The member specific benefit plan document identifies which services are covered, which are excluded, and which are subject to limitations. In the event of a conflict, the member specific benefit plan document supersedes the Medicare Advantage Policy Guidelines.

Medicare Advantage Policy Guidelines are developed as needed, are regularly reviewed and updated, and are subject to change. They represent a portion of the resources used to support UnitedHealthcare coverage decision making. UnitedHealthcare may modify these Policy Guidelines at any time by publishing a new version of the policy on this website. Medicare source materials used to develop these guidelines include, but are not limited to, CMS National Coverage Determinations (NCDs), Local Coverage Determinations (LCDs), Medicare Benefit Policy Manual, Medicare Claims Processing Manual, Medicare Program Integrity Manual, Medicare Managed Care Manual, etc. The information presented in the Medicare Advantage Policy Guidelines is believed to be accurate and current as of the date of publication and is provided on an "AS IS" basis. Where there is a conflict between this document and Medicare source materials, the Medicare source materials will apply.

You are responsible for submission of accurate claims. Medicare Advantage Policy Guidelines are intended to ensure that coverage decisions are made accurately based on the code or codes that correctly describe the health care services provided. UnitedHealthcare Medicare Advantage Policy Guidelines use Current Procedural Terminology (CPT®), Centers for Medicare and Medicaid Services (CMS), or other coding guidelines. References to CPT® or other sources are for definitional purposes only and do not imply any right to reimbursement or guarantee claims payment.

Medicare Advantage Policy Guidelines are the property of UnitedHealthcare. Unauthorized copying, use, and distribution of this information are strictly prohibited.

\*For more information on a specific member's benefit coverage, please call the customer service number on the back of the member ID card or refer to the [Administrative Guide](#).