



Manual: IU Health Plans  
Department: Utilization Management  
Policy # MP028  
Effective Date: 09/01/2025  
Last revision: 08/01/2024

# Health Plans

## Enhanced External Counterpulsation Therapy Policy

Medicare Advantage

**X Commercial**

### I. Purpose

Indiana University Health Plans (IU Health Plans) considers clinical indications when making a medical necessity determination for Enhanced External Counterpulsation Therapy (ECP).

### II. Scope

This policy applies to all Utilization Management staff having decision- making responsibilities where authorization is required for Fully Insured plans.

### III. Exceptions

1. IU Health Plans does not consider Enhanced External Counterpulsation (ECP) Therapy medically necessary for **any of the following**:
  - a. All other cardiac conditions not otherwise specified as nationally covered for the use of ECP remain nationally non-covered
  - b. Hydraulic versions of ECP devices will not be covered
  - c. ECP is not intended as a first-line therapy for angina
  - d. ECP is not covered for member with **any of the following** conditions:
    1. Arrhythmias that interfere with machine triggering
    2. Active thrombophlebitis
    3. Severe lower extremity vaso-occlusive disease
    4. Presence of a documented aortic aneurysm requiring surgical repair
    5. Pregnancy
2. This policy only addresses ECP:
  - a. Performed in the outpatient setting.
  - b. FDA approved ECP devices intended for the treatment of cardiac conditions must be utilized
  - c. Must be performed under the direct supervision of a physician who must be present and immediately available to provide assistance and direction during the treatment.

#### IV. Definitions

**External Counterpulsation Therapy (ECP)-** Centers for Medicare and Medicaid Services (CMS) defines ECP as a non-invasive outpatient treatment for coronary artery disease refractory to medical and/or surgical therapy. The Food and Drug Administration (FDA) has cleared the devices for treating a variety of cardiac conditions, including stable or unstable angina pectoris, acute myocardial infarction, and cardiogenic shock.

##### **New York Heart Association Functional Classification:**

###### **Patient Symptoms**

**Class I:** No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, or shortness of breath.

**Class II:** Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, shortness of breath or chest pain.

**Class III:** Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation, shortness of breath or chest pain.

**Class IV:** Symptoms of heart failure at rest. Any physical activity causes further discomfort.

##### **Canadian Cardiovascular Society Grading Scale for Angina:**

**Class I:** Ordinary physical activity does not cause angina, such as walking or climbing stairs. Angina occurs with strenuous, rapid or prolonged exertion.

**Class II:** Slight limitation of ordinary activity. Angina occurs only during vigorous physical activity, such as walking or climbing stairs rapidly, walking uphill, walking or stair climbing after meals in cold, wind, or under emotional stress, or only during the few hours after awakening. Walking more than two blocks on the level and climbing more than one flight of ordinary stairs at a normal pace and in normal conditions

**Class III:** Marked limitation of ordinary physical activity. It is induced by walking one or two level blocks and climbing one flight of stairs in normal conditions and at a normal pace

**Class IV:** Inability to carry on any physical activity without discomfort. Anginal syndrome may be present at rest.

#### V. Policy Statements

IU Health Plans considers Enhanced External Counterpulsation Therapy (ECP) medically necessary for **one the following** indications:

1. An **initial** full course (35 one-hour treatments per benefit period, which may be offered once or twice daily, usually five days per week) of ECP therapy is considered medically necessary when all **of the following are met**:
  - a. Members with a diagnosis of chronic disabling stable angina *Class III or IV* per New York Heart Association (NYHA) or Canadian Cardiovascular Society (CCS)
  - b. Refractory response or contraindicated to maximum medical therapy with **one of the following**:
    1. beta blockers
    2. calcium channel blockers
    3. long acting nitrates
    4. ranolazine

- c. Not a candidate for surgical or percutaneous intervention due to **one of the following**:
    1. Their condition is inoperable or at high risk of operative complications or post-op failure
    2. Their coronary anatomy is not amenable for such procedures
    3. They have co-morbid states which could create excessive risk
  - d. No comorbid condition that would result in excessive risk present to include but not limited to:
    1. Aortic insufficiency
    2. Arrhythmias such as atrial fibrillation, atrial flutter,
    3. Uncontrolled bleeding diathesis
    4. Severe Heart Failure
    5. Deep Vein thrombosis, Varicosities, or stasis ulcers
    6. Peripheral Vascular disease, phlebitis due to increased risk of thromboembolus
    7. Severe hypertension
    8. Cerebral vascular infarction
2. **Repeat** courses of ECP will be considered on a case-by-case basis for persons with chronic stable angina if **all of the following** criteria are met:
- a. Failure of surgical or percutaneous revascularization procedures
  - b. Member meets medical necessity criteria for ECP
  - c. Prior ECP has resulted in a sustained improvement in symptoms, with a significant (greater than 25%) reduction in frequency of angina symptoms
  - d. Improvement by one or more angina classes (NYHA or CCS)
  - e. Three or more months has elapsed from the prior ECP treatment

**Codes:**

CPT Codes / HCPCS Codes / ICD-10 Codes	
Code	Description
<b>HCPCS codes covered if selection criteria are met (If Appropriate):</b>	
G0166	External Counterpulsation, per treatment session
<b>ICD-10 codes covered if selection criteria are met:</b>	
I20.0	Unstable angina
I20.1	Angina pectoris with documented spasm
I20.8	Other forms of angina pectoris
I20.9	Angina pectoris, unspecified

**VI. Procedures**

None

**VII. References/Citations**

1. American Heart Association (AHA). Classes of Heart Failure. Last Reviewed June 7, 2023. [Classes and Stages of Heart Failure | American Heart Association CPR & First Aid](#)
2. Caceres, J., Atal, P., Arora, R., & Yee, D. (2021). Enhanced external Counterpulsation: A unique treatment for the "No-Option" refractory angina patient. *Journal of clinical pharmacy and therapeutics*, 46(2), 295–303. [Enhanced external counterpulsation: A unique treatment for the “No-Option” refractory angina patient - PMC \(nih.gov\)](#)
3. Centers for Medicare and Medicaid Services (CMS). National Coverage Determination

(NCD) External Counterpulsation (ECP) Therapy for Severe Angina. 20.20. Effective Date: 03/20/2006. [NCD - External Counterpulsation \(ECP\) Therapy for Severe Angina \(20.20\) \(cms.gov\)](#)

4. Raza, A., Steinberg, K., Tartaglia, J., Frishman, W. H., & Gupta, T. (2017). Enhanced External Counterpulsation Therapy: Past, Present, and Future. *Cardiology in review*, 25(2), 59–67. [Enhanced External Counterpulsation Therapy: Past, Present, a... : Cardiology in Review \(lww.com\)](#)
5. Zhao, M., Huang, Y., Li, L., Zhou, L., Wu, Z., Liu, Y., Zhang, H., & Hu, C. (2020). Enhanced External Counterpulsation Efficacy on Exercise Endurance in COPD Patients and Healthy Subjects: A Pilot Randomized Clinical Trial. *International journal of chronic obstructive pulmonary disease*, 15, 25–31. <https://doi.org/10.2147/COPD.S225566>

## **VIII. Forms/Appendices**

None

## **IX. Responsibility**

Medical Director

This Policy is proprietary and confidential. No part of this Policy may be disclosed in any manner to a third party without the prior written consent of IU Health Plans, Inc.