

Medical Policy



An Independent Licensee of the
Blue Cross and Blue Shield Association.

Title: Enhanced External Counterpulsation (EECP)

Professional

Original Effective Date: July 16, 2002
Revision Date(s): September 21, 2005;
May 2, 2007

Current Effective Date: November 1, 2007

Institutional

Original Effective Date: November 1, 2007
Revision Date(s):

Current Effective Date: November 1, 2007

DESCRIPTION

Enhanced external counterpulsation (EECP) is a noninvasive treatment that uses timed, sequential inflation of pressure cuffs on the calves, thighs, and buttocks to augment diastolic pressure, decrease left ventricular afterload, and increase venous return. Augmenting diastolic pressure displaces a volume of blood backward into the coronary arteries during diastole when the heart is in a state of relaxation and the resistance in the coronary arteries is at a minimum. The resulting increase in coronary artery perfusion pressure may enhance coronary collateral development or increase flow through existing collaterals. In addition, when the left ventricle contracts, it faces a reduced aortic pressure to work against, since the counterpulsation has somewhat emptied the aorta. EECP has been primarily investigated as a treatment for chronic stable angina.

Intra-aortic balloon counterpulsation is a more familiar, invasive form of counterpulsation that is used as a method of temporary circulatory assistance for the ischemic heart, often after an acute myocardial infarction. In contrast, EECP is thought to provide a permanent effect on the heart by enhancing the development of coronary collateral development. 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 multiple components of the procedure include the use of the device itself, finger plethysmography to follow the blood flow, continuous electrocardiograms (EKGs) to trigger inflation and deflation, and optional use of pulse oximetry to measure oxygen saturation before and after treatment.

POLICY

EECP is considered medically necessary for patients meeting the following criteria:

1. for patients with disabling angina (New York Heart Association class III or IV); and
2. refractory to maximum medical therapy (maximum doses of nitrates, beta blockers, and calcium blockers); and
3. not amenable to surgical intervention

EECP should not be allowed for patients with congestive heart failure.

Any request for repeat EECP must be reviewed.

UTILIZATION

1. An office visit will be allowed in addition to G0166 and 92971.
2. The EKG (ECG), oximetry and plethysmography are all content of service if done on the same day.
3. Up to 35 treatment sessions will be allowed. Any treatment sessions over 35 will be reviewed.

CODING

CPT/HCPCS

92971 Cardioassist-method of circulatory assist; external
G0166 External counterpulsation, per treatment session

DIAGNOSIS

These diagnoses are otherwise subject to medical policy as stated above

413.0 Angina decubitus
413.1 Prinzmetal angina
413.9 Other and unspecified angina pectoris

REVISIONS

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| Effective 09-21-2005 | <ul style="list-style-type: none"> • Liberalized from experimental / investigational to medically necessary for disabling angina (New York Heart Association class III or IV), and refractory to maximum medical therapy, and not amenable to surgical intervention, per Medical Director. |
| Effective 11-01-2007 | <ul style="list-style-type: none"> • Policy clarified by adding, "Any request for repeat EECP must be reviewed." • References were updated. |

REFERENCES

1. Blue Cross and Blue Shield Association, Enhanced External Counterpulsation (EECP) for Chronic Stable Angina or Congestive Heart Failure, policy number 2.02.06, pages 1-5, 5:2006.
2. American Heart Association Science Advisory: Assessment of Functional Capacity in Clinical and Research Applications, #71-0190 Circulation. 2000;102:1591-1597.
3. Blue Cross and Blue Shield of Kansas Cardiology Liaison Committee, May 2, 2007.
4. Blue Cross and Blue Shield of Kansas Medical Advisory Committee (MAC), August 2, 2007.

Government Agency; Medical Society; and Other Authoritative Publications

1. Blue Cross and Blue Shield Association. TEC Assessment Vol 20, No 12, December 2005.