



# BlueCross BlueShield of Louisiana

An independent licensee of the Blue Cross and Blue Shield Association.

## Continuous Passive Motion (CPM)

Policy # 00020

Original Effective Date: 05/26/1993

Current Effective Date: 12/18/2013

*Applies to all products administered or underwritten by Blue Cross and Blue Shield of Louisiana and its subsidiary, HMO Louisiana, Inc. (collectively referred to as the "Company"), unless otherwise provided in the applicable contract. Medical technology is constantly evolving, and we reserve the right to review and update Medical Policy periodically.*

*Note: Dynamic Range of Motion Devices is addressed in medical policy 00193.*

### When Services May Be Eligible for Coverage

*Coverage for eligible medical treatments or procedures, drugs, devices or biological products may be provided only if:*

- *Benefits are available in the member's contract/certificate, and*
- *Medical necessity criteria and guidelines are met.*

Based on review of available data, the Company may consider the use of continuous passive motion to be **eligible for coverage**.

### Patient Selection Criteria

The use of continuous passive motion will be considered for coverage when all of the following criteria are met:

- Continuous passive motion is initiated within the first 48 hours following surgery; and
- Continuous passive motion is for one of the following clinical indications:
  - o Post-operative rehabilitation following major joint reconstruction and/or revision of the hip, shoulder, elbow, wrist or knee; or
  - o Treatment of adhesive capsulitis, or to prevent recurrence.

### When Services Are Considered Investigational

*Coverage is not available for investigational medical treatments or procedures, drugs, devices or biological products.*

Based on review of available data, the Company considers continuous passive motion when patient selection criteria are not met to be **investigational**.\*

The use of continuous passive motion for primary or adjunct therapeutic applications other than those listed in the patient selection criteria is considered **investigational**.\* This includes, but is not limited to, use in the ankle, temporomandibular joint (TMJ), toes, treatment of degenerative joint disease or treatment of chronic contractures.

Continuous passive motion is considered to be **investigational**\* for use longer than 21 days from the date of first application.

### Background/Overview

Continuous passive motion (CPM) devices are utilized to keep a joint in motion without patient assistance. CPM is being evaluated for treatment and postsurgical rehabilitation of the upper and lower limb joints and for a variety of musculoskeletal conditions.



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Physical therapy of joints following surgery focuses both on passive motion to restore mobility and active exercises to restore strength. While passive motion can be administered by a therapist, more commonly, CPM devices are used. Continuous passive motion is thought to improve recovery by stimulating the healing of articular tissues and circulation of synovial fluid, reduce local edema, and prevent adhesions; joint stiffness or contractures; or cartilage degeneration. Continuous passive motion has been most thoroughly investigated in the knee, particularly after total knee arthroplasty (TKA) or ligamentous repair, but its acceptance in the knee joint has created interest in extrapolating this experience to other weight-bearing joints (i.e., hip, ankle, metatarsals) and non-weight-bearing joints (i.e., shoulder, elbow, metacarpals, and interphalangeal joints). Use of CPM in stroke and burn patients is also being explored.

The device moves the joint (e.g., flexion/extension), without patient assistance, continuously for extended periods of time, i.e., up to 24 hours/day. An electrical power unit is used to set the variable range of motion (ROM) and speed. The initial settings for ROM are based on a patient's level of comfort and other factors that are assessed intra-operatively. The ROM is increased by three to five degrees per day, as tolerated. The speed and ROM can be varied, depending on joint stability. The use of the devices may be initiated in the immediate postoperative period, and then continued at home for a variable period of time.

### **FDA or Other Governmental Regulatory Approval**

U.S. Food and Drug Administration (FDA)

CPM machines are considered Class II devices and are generally approved through the 510(k) process.

Centers for Medicare and Medicaid Services (CMS)

Medicare National Coverage Determinations (NCD)-Durable Medical Equipment Reference List (280.1) Manual 100-3 "Continuous passive motion devices are devices covered for patients who have received a total knee replacement. To qualify for coverage, use of the device must commence within two days following surgery. In addition, coverage is limited to that portion of the three week period following surgery during which the device is used in the patient's home. There is insufficient evidence to justify coverage of these devices for longer periods of time or for other applications."

### **Rationale/Source**

This medical policy was developed through consideration of peer-reviewed medical literature generally recognized by the relevant medical community, U.S. FDA approval status, nationally accepted standards of medical practice and accepted standards of medical practice in this community, Blue Cross and Blue Shield Association technology assessment program (TEC) and other non-affiliated technology evaluation centers, reference to federal regulations, other plan medical policies, and accredited national guidelines.

### **References**

1. Blue Cross and Blue Shield Association, 1997 TEC Assessment, Tab 20. Continuous Passive Motion as an Adjunct to Physical Therapy for Joint Rehabilitation.
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6. MacDonald SJ, Bourne RB, Rorabeck CH et al. Prospective randomized clinical trial of continuous passive motion after total knee arthroplasty. *Clin Orthop* 2000; 380:30-5.
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13. Medicare Policy: [www.cms.hhs.gov/manuals/06\\_cim/ci60.asp](http://www.cms.hhs.gov/manuals/06_cim/ci60.asp)
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16. Leach W, Reid J, Murphy F. Continuous passive motion following total knee replacement: a prospective randomized trial with follow-up to 1 year. *Knee Surg Sports Traumatol Arthrosc* 2006; 14(10):922-6.
17. Lynch D, Ferraro M, Krol J et al. Continuous passive motion improves shoulder joint integrity following stroke. *Clin Rehabil* 2005; 19(6):594-9.

## Coding

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Codes used to identify services associated with this policy may include (but may not be limited to) the following:

Code Type	Code
CPT	No code

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HCPCS	E0935, E0936
ICD-9 Diagnosis	337.22, 715.16, 715.26, 715.36, 715.96, 716.16, 717.83, 718.06, 718.56, 718.86, 719.86, 732.7, 821.20 thru 821.39, 822.0 thru 822.1, 823.00, 823.10, 959.7, V43.65, V45.81
ICD-9 Procedure	No code

## **Policy History**

Original Effective Date: 05/26/1993  
Current Effective Date: 12/18/2013

08/16/2001 Medical Policy Committee review  
08/27/2001 Managed Care Advisory Council approval  
06/24/2002 Format revision. No substance change to policy.  
02/20/2003 Medical Policy Committee review  
04/14/2003 Managed Care Advisory Council approval  
06/01/2004 Medical Director review  
06/15/2004 Medical Policy Committee review  
06/28/2004 Managed Care Advisory Council approval  
03/01/2005 Medical Director review  
03/15/2005 Medical Policy Committee review  
04/04/2005 Managed Care Advisory Council approval  
04/05/2006 Medical Director review  
05/17/2006 Medical Policy Committee approval. Format revision, including addition of FDA and or other governmental regulatory approval and rationale/source. Patient Selection criteria revised to correct redundant criterion. Coverage eligibility unchanged.

05/02/2007 Medical Director review  
05/23/2007 Medical Policy Committee approval. Coverage eligibility unchanged. Rationale revised.  
06/13/2007 Medical Director review  
06/20/2007 Medical Policy Committee approval. Rationale updated. Coverage eligibility unchanged.  
10/01/2008 Medical Director review  
10/22/2008 Medical Policy Committee approval. No change to coverage eligibility.  
10/01/2009 Medical Policy Committee approval  
10/14/2009 Medical Policy Implementation Committee approval. No change to coverage eligibility.  
10/14/2010 Medical Policy Committee review  
10/20/2010 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.  
10/06/2011 Medical Policy Committee review  
10/19/2011 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.  
12/06/2012 Medical Policy Committee review  
12/19/2012 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.  
12/12/2013 Medical Policy Committee review  
12/18/2013 Medical Policy Implementation Committee approval. Coverage eligibility unchanged.

Next Scheduled Review Date: 12/2014

\*Investigational – A medical treatment, procedure, drug, device, or biological product is Investigational if the effectiveness has not been clearly tested and it has not been incorporated into standard medical practice. Any determination we make that a medical treatment, procedure, drug, device, or biological product is Investigational will be based on a consideration of the following:

- A. whether the medical treatment, procedure, drug, device, or biological product can be lawfully marketed without approval of the U.S. Food and Drug Administration (FDA) and whether such approval has been granted at the time the medical treatment, procedure, drug, device, or biological product is sought to be furnished; or

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- B. whether the medical treatment, procedure, drug, device, or biological product requires further studies or clinical trials to determine its maximum tolerated dose, toxicity, safety, effectiveness, or effectiveness as compared with the standard means of treatment or diagnosis, must improve health outcomes, according to the consensus of opinion among experts as shown by reliable evidence, including:
1. Consultation with the Blue Cross and Blue Shield Association technology assessment program (TEC) or other nonaffiliated technology evaluation center(s);
  2. credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community; or
  3. reference to federal regulations.

**\*\*Medically Necessary (or "Medical Necessity")** - Health care services, treatment, procedures, equipment, drugs, devices, items or supplies that a Provider, exercising prudent clinical judgment, would provide to a patient for the purpose of preventing, evaluating, diagnosing or treating an illness, injury, disease or its symptoms, and that are:

- A. in accordance with nationally accepted standards of medical practice;
- B. clinically appropriate, in terms of type, frequency, extent, level of care, site and duration, and considered effective for the patient's illness, injury or disease; and
- C. not primarily for the personal comfort or convenience of the patient, physician or other health care provider, and not more costly than an alternative service or sequence of services at least as likely to produce equivalent therapeutic or diagnostic results as to the diagnosis or treatment of that patient's illness, injury or disease.

For these purposes, "nationally accepted standards of medical practice" means standards that are based on credible scientific evidence published in peer-reviewed medical literature generally recognized by the relevant medical community, Physician Specialty Society recommendations and the views of Physicians practicing in relevant clinical areas and any other relevant factors.

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