

Medical Policy



Continuous Passive Motion (CPM) Devices

▼ Description

A continuous passive motion (CPM) device moves the affected joint continuously without an individual's assistance. The CPM device is used as an adjunct to conventional physical therapy, and is an established therapy in the early postoperative phase of rehabilitation for members following knee injury or surgery, manipulation, ACL/PCL reconstruction or following injury or surgical repair of the articulating joints in the shoulder.

An electrical power unit is used to set the variable range of motion and speed. The speed and range of motion can be adjusted depending on joint stability, patient comfort level, and other factors assessed intraoperatively. These settings are made by a physical therapist or other health professional familiar with these devices. If needed, an emergency stop switch immediately halts the device.

▼ Policy

A continuous passive motion (CPM) device is considered an established therapy in the following circumstances:

- For the early phases of rehabilitation along with active physical therapy for patients who have had knee injury or surgery.
- During the non-weight-bearing rehabilitation period following intra-articular cartilage repair procedures of the knee (e.g., microfracture, osteochondral grafting, autologous chondrocyte implantation, treatment of osteochondritis dissecans, repair of tibial plateau fractures).
- For patients who have sustained an injury or undergone surgery of the joint tissues of the shoulder.

A CPM device is considered reasonable and necessary for members meeting the below coverage criteria.

▼ Policy Guidelines

Coverage Criteria:

The continuous passive motion (CPM) device when used as an adjunct to conventional physical therapy is an established therapy in the early postoperative phase of rehabilitation (must meet one):

- For patients following knee injury or surgery (e.g., total knee arthroplasty, ACL repair, etc.)
- For patients who have sustained an injury to, or have undergone surgery of the articular tissues of the shoulder.
- For use during the non-weight-bearing rehabilitation period following intra-articular cartilage repair procedures of the knee (e.g., microfracture, osteochondral grafting, autologous chondrocyte implantation, treatment of osteochondritis dissecans, repair of tibial plateau fractures).

Limitations:

1. Use of the CPM machine for other joints or joint conditions, including, but not limited to the hip, ankles, toes, fingers, etc. is considered not reasonable and necessary.
2. Synthetic sheepskin pad (E0188) and lambs wool sheepskin pad, any size (E0189) are considered included in the reimbursement for rental of the CPM device and not separately payable.
3. Coverage is generally limited to that portion of the three week period following surgery during which the device is used in the Member's home.

▼ HCPCS Level II Codes and Description

E0935	Passive motion exercise device for use on knee only
E0936	Continuous passive motion exercise device for use other than the knee
E0188	Synthetic sheepskin pad
E0189	Lambs wool sheepskin pad, any size

▼ Documentation Requirements

1. When billing for a CPM device:
 - a. The "from" date should represent the date the CPM device began in the Member's home
 - b. Providers should bill the date the use of the device ends as the "to" date

- c. Coverage for CPM device is limited to that portion of the 21 day following surgery during which the device is used in the Member's home. Additional days over the 21 day period will be considered not reasonable and necessary.
 - d. The units of service should reflect the actual number of calendar days the CPM device was used by the Member in the home.
 2. When billing for a CPM device the claim must include all the following information:
 - a. The type of surgery performed (such as "total knee replacement") or provide the CPT code for the surgical procedure (e.g., 27447, 27486, or 27487)
 - b. Date of the surgery
 - c. Date the device was initiated
 - d. Date of discharge from the hospital or nursing home (if the Member is discharged from the hospital to a skilled nursing facility or rehabilitation center before going home, use the discharge date when the Member went home.)
 3. Claims submitted without required information will be rejected.

▼References

1. Bible, Jesse E, BS, et al., "Actual knee motion during continuous passive motion protocols is less than expected," *Clinical Orthopaedics and Related Research*, Volume 467, Number 10, 2009, pp. 2656-2661.
2. Blue Cross Blue Shield Association, "Continuous passive motion as an adjunct to physical therapy for joint rehabilitation," *Technology Evaluation Center (TEC) Assessment Program*, Volume 12, Tab 20, 1997.
3. Blue Cross Blue Shield Association, *Medical Policy Reference Manual*, "Continuous Passive Motion (CPM) in the Home Setting," Policy 1.01.10, initial date 11/96, last update 7/14/11.
4. Brosseau, L., et al., "Efficacy of continuous passive motion following total knee arthroplasty: a metaanalysis," *J Rheumatol*, Volume 31, Number 11, 2004, pp. 2251-2264.
5. Browne, J. E., et al., "Clinical outcome of autologous chondrocyte implantation at 5 years in US subjects," *Clin Orthop Relat Res*, Volume 436, 2005, pp. 237-245.
6. Bruun-Olsen, V., et al., "Continuous passive motion as an adjunct to active exercises in early rehabilitation following total knee arthroplasty - a

- randomized controlled trial," *Disabil Rehabil*, Volume 31, Number 4, 2009, pp. 277-283.
7. Chen, B., et al., "Continuous passive motion after total knee arthroplasty: a prospective study," *Am J Phys Med Rehabil*, Volume 79, Number 5, 2000, pp. 421-426.
 8. Centers for Medicare and Medicaid Services (CMS), "Continuous Passive Motion Device," *Jurisdiction B Connections*, available at < http://www.ngsmedicare.com/wps/wcm/connect/39bec380446821e5b7cabf7c289de06c/JBC_June_2010.pdf?MOD=AJPERES&CACHEID=39bec380446821e5b7cabf7c289de06c&LOB=Durable+Medical+Equipment®ION=&clearcookie=&savecookie= > most recent Michigan revision date June 2010, (7/12/11).
 9. Denis, M., et al., "Effectiveness of continuous passive motion and conventional physical therapy after total knee arthroplasty: a randomized clinical trial," *Phys Ther*, Volume 86, Number 2, 2006, pp. 174-185.
 10. Dunder, U., et al., "Continuous passive motion provides good pain control in patients with adhesive capsulitis," *Int J Rehabil Res*, Volume 32, Number 3, 2009, pp. 193-198.
 11. Farr, J., "Autologous chondrocyte implantation improves patellofemoral cartilage treatment outcomes," *Clin Orthop Relat Res*, Volume 463, 2007, pp. 187-94.
 12. Gelberman, R. H., et al., "Influences of the protected passive mobilization interval on flexor tendon healing. A prospective randomized clinical study," *Clin Orthop Relat Res*, Volume 264, 1991, pp. 189-196.
 13. Harvey, L. A., et al., "Continuous passive motion following total knee arthroplasty in people with arthritis (Review)," *Cochrane Database Syst Rev*, Number 2, 2010: CD004260.
 14. HAYES Medical Technology Directory, "Mechanical stretching devices and continuous passive motion for joints of the extremities," Lansdale, PA: HAYES, Inc., July 7, 2005, last updated 7/21/09, archived 8/7/10.
 15. Kasten, P., et al., "Compliance with continuous passive movement is low after surgical treatment of idiopathic club foot in infants: a prospective, double-blinded clinical study," *J Bone Joint Surg Br*, Volume 89, Number 3, 2007, pp. 375-377.
 16. Kumar, P. J., et al., "Rehabilitation after total knee arthroplasty: a comparison of 2 rehabilitation techniques," *Clin Orthop Relat Res*, Volume 331, 1996, pp. 93-101.

17. Lastayo, P. C., et al., "Continuous passive motion after repair of the rotator cuff. A prospective outcome study," *J Bone Joint Surg Am*, Volume 80, Number 7, 1998, pp. 1002-1011.
18. Leach, W., et al., "Continuous passive motion following total knee replacement: a prospective randomized trial with follow-up to 1 year," *Knee Surg Sports Traumatol Arthrosc*," Volume 14, Number 10, 2006, pp. 922-026.
19. Lenssen, T. A., et al., "Effectiveness of prolonged use of continuous passive motion (CPM), as an adjunct to physiotherapy, after total knee arthroplasty," *BMC Musculoskelet Disord*, Volume 9, Number 60, 2008, pp. 1-11.
20. Lindenhovius, A. L., et al., "Open elbow contracture release: postoperative management with and without continuous passive motion," *J Hand Surg Am*, Volume 34, Number 5, 2009, pp. 858-865.
21. Lynch, D., et al., "Continuous passive motion improves shoulder joint integrity following stroke," *Clin Rehabil*, Volume 19, Number 6, 2005, pp. 594-599.
22. MacDonald, S. J., et al., "Prospective randomized clinical trial of continuous passive motion after total knee arthroplasty," *Clin Orthop Relat Res*, Volume 380, 2000; (380), pp. 30-35.
23. McInnes, J., et al., "A controlled evaluation of continuous passive motion in patients undergoing total knee arthroplasty," *JAMA*, Volume 268, Number 11, 1992, pp. 1423-1428.
24. Milne, S., et al., "Continuous passive motion following total knee arthroplasty," *Cochrane Database Syst Rev*, Number 2, 2003, (2):CD004260.
25. Nugent-Derfus, G. E., et al., "Continuous passive motion applied to whole joints stimulates chondrocyte biosynthesis of PRG4," *Osteoarthritis Cartilage*, Volume 15, Number 5, 2007, pp. 566-754.
26. Pope, R. O., et al., "Continuous passive motion after primary total knee arthroplasty. Does it offer any benefits?" *J Bone Joint Surg Br*, Volume 79, Number 6, 1997, pp. 914-917.
27. Raab, M. G., et al., "Early results of continuous passive motion after rotator cuff repair: a prospective, randomized, blinded, controlled study," *Am J Orthop*, Volume 25, Number 3, 1996, pp. 214-220.

▼ **Important Note:**

Northwood's Medical Policies are developed to assist Northwood in administering plan benefits and determining whether a particular DMEPOS product or service

is reasonable and necessary. Equipment that is used primarily and customarily for a non-medical purpose is not considered durable medical equipment.

Coverage determinations are made on a case-by-case basis and are subject to all of the terms, conditions, limitations, and exclusions of the member's contract including medical necessity requirements.

The conclusion that a DMEPOS product or service is reasonable and necessary does not constitute coverage. The member's contract defines which DMEPOS product or service is covered, excluded or limited. The policies provide for clearly written, reasonable and current criteria that have been approved by Northwood's Medical Director.

The clinical criteria and medical policies provide guidelines for determining the medical necessity for specific DMEPOS products or services. In all cases, final benefit determinations are based on the applicable contract language. To the extent there are any conflicts between medical policy guidelines and applicable contract language, the contract language prevails. Medical policy is not intended to override the policy that defines the member's benefits, nor is it intended to dictate to providers how to direct care. Northwood Medical policies shall not be interpreted to limit the benefits afforded to Medicare or Medicaid members by law and regulation.

Northwood reserves the right to amend all policies without notice to providers or members.

Northwood's policies do not constitute medical advice. Northwood does not provide or recommend treatment to members. Members should consult with their treating physician in connection with diagnosis and treatment decisions.

Applicable URAC Standard

Core 8	Staff operational tools and support
--------	-------------------------------------

Change/Authorization History

Revision Number	Date	Description of Change	Prepared / Reviewed by	Approved by	Review Date:
A	11-20-06	Initial Release	Rosanne Brugnoli	Ken Fasse	n/a
01		Annual Review – no changes	Susan Glomb	Ken Fasse	12-2008

02	12-22-09	Annual Review- No changes	Susan Glomb	Ken Fasse	Dec.2009
03	01-25-10	Added: use of CPM for other than the knee would be considered not medically necessary.	Susan Glomb	Ken Fasse	
04	11-19-10	Annual Review – No changes	Susan Glomb	Ken Fasse	Nov.2010
05	02-14-11	Updated the policy to current version	Susan Glomb	Ken Fasse	
06	07-20-11	Added Important Note to all Medical Policies, References and updated to reflect current policies.	Susan Glomb	Dr. B. Almasri	
07	04-03-12	Added reference to NH Medicaid	Susan Glomb	Dr. B. Almasri	
08	11-28-12	Annual Review – No changes	Susan Glomb	Dr. B. Almasri	Nov 12
09	12-30-13	Annual review. No changes	Susan Glomb	Dr. B. Almasri	Dec 13
10	11-24-14	Annual Review. No changes	Susan Glomb	Dr. B. Almasri	
11	11-25-15	Annual Review. No Changes.	Lisa Wojno	Dr. B. Almasri	November 2015