

## **MP.024.MPC - Continuous Passive Motion (CPM) Devices**

Maryland Physicians Care considers **Continuous Passive Motion (CPM) Devices** medically necessary in the early post-operative period following:

1. Knee Surgery:
  - a. Total knee replacements (TKRs), revisions of TKR, release of arthrofibrosis and intra-articular cartilage repair procedure of the knee;
  - b. Knee ligament reconstructive surgery;
  - c. Open reduction and internal fixation for tibial plateau fracture;
  - d. Quadricepsplasty;
  - e. Manipulation and osteotomy around the knee, distal femur or proximal tibia;
  - f. Autologous chondrocyte transplant (ACT);
  - g. Open reduction internal fixation of an osteochondral fracture; and
  - h. Manipulation of the knee under anesthesia.
  
2. Shoulder Surgery:
  - a. Arthroplasty of shoulder;
  - b. Adhesive capsulitis surgery;
  - c. As an adjunct to physical therapy (PT) in the immediate postoperative rehabilitation of rotator cuff repair;
  - d. Acromioplasty or acromionectomy of shoulder;
  - e. Resection of bone tumor of proximal humerus; and
  - f. Manipulation of shoulder joint under anesthesia.

When ALL of the following criteria are met:

- a. Must be initiated within two days post operatively for a period of no longer than 21 days (three weeks).
- b. Must be recommended by an orthopedic specialist following surgery. The orthopedic specialist determines the speed, duration of usage, amount of motion, and the rate of increase of motion.

### **Limitations**

1. Use of device must commence within two days following surgery and is limited to the three-week period following surgery because there is insufficient evidence to justify coverage of these devices for longer periods of time or for other applications.
2. Coverage is only for rental equipment.

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3. The use of a continuous passive motion (CPM) device is considered experimental and investigational for all other indications.

### Background

CPM devices are durable medical equipment (DME) devices used as a treatment modality in which joint motion is provided without causing active contraction of muscle groups and with the goal of maintaining or restoring range of motion (ROM) to the joint. CPMs are used early in the healing process as passive motion can provide movement of the synovial fluid and thus promote lubrication of the joint, stimulate the healing of articular tissues, prevent adhesions and joint stiffness, and reduce edema, without interfering with the healing of incisions or wounds over the moving joint. CPM devices allow increased duration of therapy and can be performed in a controlled, defined way.

CPM devices are available for several joints, including the knee, ankle, jaw, hip, elbow, shoulder, and finger.

It has been most thoroughly explored in the knee, particularly after total knee arthroplasty (TKA) or ligament or cartilage repair, but its acceptance in the knee joint has prompted other weight-bearing joints (e.g., hip, ankle, etc.) to follow suit.

A study published by the Institute for Quality Assurance found that patients with stiff shoulders will get less pain with CPM treatment than with physiotherapy alone. Patients with total knee replacements will have improved range of motion with CPM combined with physiotherapy.

### Codes:

CPT Codes / HCPCS Codes / ICD-10 Codes	
Code	Description
E0935	Continuous passive motion device for use on the knee only
E0396	Continuous passive motion device for use other than knee
ICD-10 codes covered if selection criteria are met:	
Z96.611-Z96.619	Presence of artificial shoulder joint
Z96.651-Z96.659	Presence of artificial knee joint

### References

1. Centers for Medicare and Medicaid Services (CMS). National Coverage Determination (NCD) No. 280.1 - Durable Medical Equipment Reference List. Effective Date: 05/05/2005. <http://www.cms.gov/medicare-coverage->

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4. He ML, Xiao ZM, Lei M, et al. Continuous passive motion for preventing venous thromboembolism after total knee arthroplasty. *Cochrane Database Syst Rev.* 2014 Jul 29;7:CD008207. doi: 10.1002/14651858.CD008207.pub3. [update of 2012 review]. <https://www.ncbi.nlm.nih.gov/pubmed/22258981>
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7. Medicare Coverage Issues Manual; NCD Transmittal 161, November 8, 2002; Implementation and Effective Date 4/1/2003. <http://www.cms.gov/Regulations-and-Guidance/Guidance/Transmittals/downloads/R161CIM.pdf>
8. Wright, RW, Preston, E, Fleming, BC et al. ACL Reconstruction Rehabilitation: A Systemic Review Part I. *Knee Surgery.* July 2008; 21(3): 217-224. <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3692363/#R8>

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