



**BlueCross BlueShield
of Vermont**

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

Corporate Medical Policy Continuous Passive Motion (CPM) in the Home

File name: Continuous Passive Motion (CPM)

File Code: UM.DME.11

Origination: 05/1994

Last Review: 02/2014 (ICD-10 remediation only)

Next Review: 01/2012

Effective Date: 07/01/2011

Document Precedence

Blue Cross and Blue Shield of Vermont (BCBSVT) Medical Policies are developed to provide clinical guidance and are based on research of current medical literature and review of common medical practices in the treatment and diagnosis of disease. The applicable group/individual contract and member certificate language determines benefits that are in effect at the time of service. Since medical practices and knowledge are constantly evolving, BCBSVT reserves the right to review and revise its medical policies periodically. To the extent that there may be any conflict between medical policy and contract language, the member's contract language takes precedence.

Medical Policy

Description

- 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, continuous passive motion (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. CPM has been most thoroughly investigated in the knee, particularly after total knee arthroplasty 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). A wide variety of CPM devices are available for rehabilitation of specific joints.
- 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 3-5 degrees per day, as tolerated. The speed and range of motion 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.

Policy

When service or procedure is covered

BCBSVT considers continuous passive motion (CPM) machines medically necessary durable medical equipment (DME) under any of the following conditions and circumstances:

- The continuous passive motion (CPM) device, when used in the immediate postoperative period (up to 17 days on a rental basis) as an adjunct to conventional physical therapy may be considered medically necessary for total knee arthroplasty;
- For individuals who have undergone anterior cruciate ligament (ACL) repair until the individual is participating in an active PT program;
- For procedures involving articular cartilage of the knee in order to promote cartilage growth and enhance cartilage healing during the non-weight bearing period in the immediate post period after any of the following procedures:
 - After abrasion arthroplasty or microfracture procedure;
 - Autologous chondrocyte transplantation;
 - Chondroplasties of focal cartilage defects;
 - Surgery for intra-articular cartilage fractures;
 - Surgical treatment of osteochondritis dissecans;
- treatment of an intra-articular fracture of the knee (e.g., tibial plateau fracture repair); For patients undergoing surgical release of arthrofibrosis/adhesive capsulitis or manipulation under anesthesia of any joint major joint until the patient is participating in an active PT program;
- Patients who have any of the following conditions and after having undergone certain surgeries and may not be able to benefit optimally from active PT:
 1. Dupuytren's contracture;
 2. Extensive tendon fibrosis;
 3. Mental and behavioral disorders;
 4. Reflex sympathetic dystrophy;
- Members who are unable to undergo active PT.

Note: In instances where the CPM device is used for surgical rehabilitation, the use of the device must commence within 2 days following surgery and may continue for up to 17 days post hospital discharge (on a rental basis only). The use of the CPM machine beyond 21 days post-operatively is not supported by the medical literature. In addition, coverage is limited to that portion of the 21 day period following surgery during which the device is used in the patient's home.

When service or procedure may not be covered

- The use of a home CPM device in lieu of or as an adjunct to conventional physical therapy for any other condition is considered *investigational and not medically necessary*
- Rental or purchase of CPM for any reason other than those listed above.
- When prior approval is not obtained from the Plan.
- The use of CPM when the above criteria of medical necessity have not been met.
- Continued inpatient or rehabilitation facility stay for the sole purpose of administering CPM

Policy Guidelines

Following total knee arthroplasty (TKA), continuous passive motion (CPM) in the home setting will be allowable for up to 17 days after surgery while patients are immobile or unable to bear weight.

Following intra-articular cartilage repair procedures of the knee, CPM in the home setting will be allowable for up to 6 weeks during non-weight bearing rehabilitation.

Information required (prior approval required)

The prior approval request must be accompanied by supporting documentation of medical necessity, which includes; patient's name and age, date of surgery, preoperative diagnosis, postoperative diagnosis, results of prior arthroscopic or surgical repairs, patient's ability to comply with post-surgical rehabilitation, and physical therapy care plan.

Rationale

The original medical policy was based on a 1997 TEC Assessment that concluded that continuous passive motion (CPM) met the TEC criteria as an adjunct to physical therapy in patients undergoing total knee arthroplasty. (1) Early studies of CPM machines focused on their use in the hospital setting, where frequently the impact on length of stay was considered a key clinical outcome, and the TEC Assessment did not specifically examine the place of service of CPM or the length of time that the CPM machines were used. For example, a critical study identified in the TEC Assessment was a randomized study by McInnes that examined the use of CPM initiated in the immediate postoperative period and continued throughout the 7-day hospital stay. (2) At 6 weeks postoperatively, the most salient difference in the 2 groups was an increased incidence of arthrofibrosis requiring manipulation in the non-CPM group. However, this study did not focus on the use of CPM in the home. In the other articles reviewed for the TEC Assessment, CPM was typically used for 7 days or less. The 1997 TEC Assessment concluded that at the time of review, other applications of CPM did not meet the TEC criteria.

Over the past 10 years, hospital lengths of stay have progressively shortened, and in some cases surgical repair may be done either as an outpatient or with a length of stay of 1-2 days. Therefore, with early discharge, some providers may wish to continue CPM in the home as a means of duplicating the services offered with a longer (7-day) hospital stay. The focus of the current policy is to examine the literature regarding home use of CPM. It

specifically examines the treatment outcome of CPM when used alone or when used in addition to conventional physical therapy compared to physical therapy alone.

Literature review updates of the MEDLINE database, focusing on randomized trials of CPM used in the home setting, were performed for the periods of 1996 to September 2003, October 2003 through January 2006, February 2006 through June 2007, and July 2007 through October 2008. The majority of studies identified focused on the use of CPM in the knee. Therefore, the following discussion focuses on different surgical procedures for the knee, followed by a review of literature regarding CPM for other joints.

Total Knee Arthroplasty (TKA)

A study by Worland and colleagues was the only identified controlled study that compared the use of CPM and active physical therapy in the home setting. In this study, 80 patients undergoing TKA were randomly assigned to receive, at discharge, home CPM (3 hours/day for 10 days) versus active physical therapy, as offered by professional physical therapists. (3) The vast majority of studies have examined CPM as an adjunct to active physical therapy; therefore, this study is unique in that CPM is proposed as an alternative. At 2 weeks, knee flexion was similar in the 2 groups, but a flexion contracture was noted in 1 patient in the CPM only group. At 6 months, no differences were found in knee scores or knee flexion.

In another study, 60 patients with limited flexion range of motion ($< 80^\circ$) at the time of hospital discharge were assigned to standard physical therapy alone or in combination with CPM in the home (4 hours per day) until assessment on postoperative day 17. (4) Blinded assessment showed a trend for an increase in range of motion for the CPM group (e.g., 89° vs. 84° , $p = 0.07$), with no differences in function between the groups as measured by the Knee Society Score (function subscore 43 vs. 40) or the WOMAC difficulty score (49 vs. 45). No differences were observed between groups in range of motion or function at the 6-week or 3-month assessment. No differences were observed for the secondary outcome measures (perceived effect, medication use, satisfaction with treatment, adherence) at any of the assessment times. Since benefit for long-term range of motion or functional recovery was not detected, the authors questioned whether routine use of CPM following hospital discharge should be continued.

Chen and colleagues randomized 51 patients in an inpatient rehabilitation service who had undergone TKA to receive conventional active physical therapy or physical therapy plus CPM. (5) Referral to the rehabilitation center was made 5-6 days after surgery, and the majority had received CPM as part of the initial hospitalization. Knee flexion was the principal outcome. No significant difference was noted in range of passive motion between the 2 groups, as measured on admission, on the third and seventh hospital days, and at the time of discharge (8 days after admission). The authors concluded that the use of CPM in the rehabilitation hospital offered no added benefit. While a rehabilitation service does not duplicate the home environment, it does reflect the use of CPM beyond the initial acute hospitalization.

Efficacy in the early postoperative period has been cited to support the continued use of these devices in the home setting following early discharge. CPM after TKA was the subject of a 2003 Cochrane review. (6) This review reported that CPM combined with physical therapy was found to statistically significantly increase active knee flexion and decrease length of stay. However, the analysis suggests that the benefits of CPM in a hospital setting may be small and only short term. (7) More recent randomized controlled trials find that 2-4 hours of daily CPM in the hospital after total knee replacement does not improve

postoperative outcomes at discharge or follow-up. (8-10) For example, Bruun-Olsen and colleagues randomized 67 patients undergoing TKA to receive active PT exercises with or without CPM to assess whether there was short-term benefit on pain or function. (10). In both groups, exercises were performed daily for 30 minutes, starting 1 day after surgery until discharge at 1 week. For the experimental group CPM was provided for 4 hours on the day of surgery, followed by 6 hours daily in addition to therapist-guided exercises. Blinded assessment at 1 week and 3 months after surgery showed similar results for pain and function in the 2 groups; at 1 week, both groups had VAS pain ratings of 40 and flexion scores that were within 2 degrees of each other. Functional testing at 3 months showed no benefit of adjunctive CPM. The lack of improvement with CPM in recent studies may be due to the current practice of permitting patients to mobilize or commence flexion immediately following surgery. (9)

Other studies in the hospital setting have focused on whether the use of CPM is safe (i.e., whether or not it has an impact on healing of tissues), what range of motion can be tolerated at what point in the postoperative recovery, and whether or not the use of CPM permits earlier hospital discharge by accelerating the recovery of range of motion. Yashar and colleagues reported on a trial that randomized 178 patients undergoing TKA to CPM immediately in the postoperative period or to CPM 1 day after surgery. A small but statistically significant improvement in flexion was found at the time of discharge in those started on early CPM, but this difference did not persist at 4 weeks. (11) MacDonald and colleagues reported on a randomized trial focusing on immediate postoperative versus no postoperative CPM in a group of patients undergoing TKA. (12) Patients received a maximum of 24 hours with CPM. There were no differences in the treatment groups regarding range of motion, length of stay, or analgesic requirements. In the trial reported by Pope and colleagues, 53 patients were randomized either to 2 different schedules of CPM versus no CPM. The use of CPM was not associated with improved function or range of motion. (13) Kumar and colleagues randomized 73 patients who had undergone TKA to receive either CPM in the immediate postoperative period versus protocol of early passive flexion referred to as the "drop and dangle" technique. (14) Patients assigned to the drop and dangle technique were discharged from the hospital earlier and also had a statistically better extension range at 6 months compared to the CPM group.

Anterior Cruciate Ligament Repair

The literature search did not identify any additional randomized controlled trials of CPM after repair of the anterior cruciate ligament in the home setting. Therefore, the studies of CPM after ACL repair in the immediate postoperative period may possibly be relevant to the home setting for patients who are discharged with an abbreviated hospital stay. The 1997 TEC Assessment concluded that CPM in the immediate postoperative period as an adjunct to conventional physical therapy offered no demonstrable advantage over conventional physical therapy alone. (1) In a 2008 systematic review of ACL reconstruction rehabilitation, Wright et al discussed 6 randomized trials on CPM that had been published prior to 1996; no randomized-controlled studies published after the 1997 TEC Assessment were identified. (15) The review found no substantial advantage for CPM use, and concluded that CPM for ACL rehabilitation could not be justified. Wright and colleagues also noted that most current ACL rehabilitation protocols institute early motion within the first postoperative week.

Cartilage Repair of the Knee

Although no controlled clinical studies were identified, basic research supports greater healing of articular cartilage of full-thickness defects that penetrate the subchondral bone

than either immobilization or intermittent mobilization. (16, 17) CPM has been used as a part of the rehabilitation protocol for as long as 6 weeks when weight bearing is restricted following autologous chondrocyte implantation (ACI). (18-20)

Hip

The literature search did not identify any controlled studies focusing on CPM of the hip after surgical intervention. One pilot study looked at the use of CPM of the hip in patients with osteoarthritis in the absence of surgical intervention. (21) This uncontrolled study examined the use of CPM for 1 to 7 hours daily for a 12-week trial. While improvements were noted in the patient's assessment of pain, a controlled trial is needed to validate this treatment effect, particularly in comparison to a program of regular walking.

Shoulder

Passive shoulder motion has been studied after shoulder surgery, particularly after repair of the rotator cuff. Lastayo and colleagues reported on the results of a trial that randomized 31 patients undergoing rotator cuff repair to 1 of 2 types of postoperative management: a 4-week home program of continuous passive motion (average of 3 hours per day) or manual passive elevation and rotation exercises. (22) No significant difference in outcomes was observed between the 2 approaches, although the study may have been underpowered. Raab and colleagues conducted a trial that randomized 26 patients to undergo postoperative physical therapy alone or CPM in addition to physical therapy. (23) Patients were evaluated with pre- and 3-month postoperative shoulder scores that incorporated pain, function, muscle strength, and range of motion. A significant improvement was found in the subscore of range of motion, although there was no significant improvement in overall shoulder score in the CPM group compared to the control group. This study may also have been underpowered.

CPM is also being studied as a means to aid recovery of motor skills following stroke. One study randomized 35 patients to daily sessions of CPM (25 min) or daily group therapy sessions consisting of self-range motion for post-stroke rehabilitation. (24) All patients also received standard post-stroke therapy for 3.5 hours per day. Following 20 days of therapy, there was a trend for greater shoulder joint stability in the passive motion group ($n = 17$, $p < 0.06$) compared with the control group ($n=15$). No statistically significant differences were found for measures of motor impairment. This study is limited by the small sample size and the short follow-up period; additional studies are needed to determine whether treatment with passive motion over a longer duration could aid in the recovery of motor skills following stroke.

Hand

The 1997 TEC Assessment reviewed a multicenter study of CPM in patients who had undergone flexor tendon repair. (25) The TEC Assessment concluded that data were inadequate data to permit scientific conclusions regarding these applications. Ring and colleagues examined the role of CPM in 15 hands (60 joints) undergoing silicone interposition arthroplasty of the metacarpophalangeal joint secondary to rheumatoid arthritis. (26) Patients were randomized to receive a 6-week protocol CPM plus the standard dynamic splint protocol versus the dynamic splint protocol alone. The authors did not identify any clear advantages of adding CPM to the standard protocol. A retrospective chart review compared 15 patients who had received CPM after tenolysis with 21 who did not. (27) The patients who received CPM improved total active motion 38° (from 137° to 177°), while patients who did not receive CPM improved motion 24° (from 152° to 184°). This was not significantly different. Although the CPM users had more therapy visits, it was

not known why some patients had been prescribed CPM and others had not. Interpretation of this uncontrolled study is limited.

Foot

One study compared passive motion versus immobilization following surgical treatment of idiopathic club foot in 38 infants (50 feet). (28) The infants were randomized to CPM (4 hours each day) or casting during days 10-42 following surgery. Blinded analysis showed improvements in the Dimeglio club foot score (9.7 to 3.1) that were significantly greater than in the control group (10.3 to 4.2) through 12 months (97% follow-up). Between 12 and 18 months this trend reversed, and by 48 months after surgery there was no significant difference between the 2 groups. Compliance with this treatment may be low. (29)

Conclusion:

Current postoperative rehabilitation protocols are considerably different than when the largest body of evidence was collected, making it difficult to apply the available evidence to the present situation. Recent literature suggests that home use of CPM has minimal benefit when combined with standard physical therapy after total knee arthroplasty. However, studies conducted in a controlled hospital setting suggest that CPM can improve rehabilitation when postoperative mobility is restricted. Therefore, based on clinical input and consideration of additional literature, the policy statement has been revised to indicate that use of CPM in the home setting may be considered medically necessary after some knee joint surgeries as an adjunct to physical therapy, under conditions of low postoperative mobility or inability to comply with rehabilitation exercises. Use of CPM in the home under all other conditions is considered investigational.

Physician Specialty Society and Academic Medical Center Input

In response to requests, input was received from 1 physician specialty society and 2 academic medical centers while this policy was under review in 2008. While the various physician specialty societies and academic medical centers may collaborate with and make recommendations during this process, through the provision of appropriate reviewers, input received does not represent an endorsement or position statement by the physician specialty societies or academic medical centers, unless otherwise noted. The 3 reviewers interpreted the existing literature as providing support for the use of CPM for the knee for at least 7 days postoperatively whether in the hospital or home, and suggested that longer use of CPM would be warranted for special conditions.

Physician Specialty Society Statements and Guidelines

Clinical practice guidelines from the French Physical Medicine and Rehabilitation Society conclude that evidence is not sufficient to recommend substituting CPM for other rehabilitation techniques aimed at early mobilization after TKA. (30) The evidence review found no positive effect of CPM over intermittent early mobilization, at short- or long-term follow-up.

Medicare Policy

Medicare Coverage Issues Manual—Durable Medical Equipment

Section 60-9 "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 2 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." (31)

Scientific Background and Reference Resources

1. 1997 TEC Assessments; Tab 20. Continuous Passive Motion as an Adjunct to Physical Therapy for Joint Rehabilitation.
2. McInnes J, Larson MG, Daltroy LH et al. A controlled evaluation of continuous passive motion in patients undergoing total knee arthroplasty. *JAMA* 1992; 268(11):1423-8.
3. Worland RL, Arredondo J, Angles F et al. Home continuous passive motion machine versus professional physical therapy following total knee replacement. *J Arthroplasty* 1998; 13(7):784-7.
4. Lenssen TA, van Steyn MJ, Crijns YH et al. Effectiveness of prolonged use of continuous passive motion (CPM), as an adjunct to physiotherapy, after total knee arthroplasty. *BMC Musculoskelet Disord* 2008; 9:60.
5. Chen B, Zimmerman JR, Soulen L et al. Continuous passive motion after total knee arthroplasty: a prospective study. *Am J Phys Med Rehabil* 2000; 79(5):421-6.
6. Milne S, Brosseau L, Robinson V et al. Continuous passive motion following total knee arthroplasty (Cochrane Review) In: *The Cochrane Library*, Issue 3, 2003.
7. Brosseau L, Milne S, Wells G et al. Efficacy of continuous passive motion following total knee arthroplasty: a metaanalysis. *J Rheumatol* 2004; 31(11):2251-64.
8. Denis M, Moffet H, Caron F et al. Effectiveness of continuous passive motion and conventional physical therapy after total knee arthroplasty: a randomized clinical trial. *Phys Ther* 2006; 86(2):174-85.
9. 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.
10. Bruun-Olsen V, Heiberg KE, Mengshoel AM. Continuous passive motion as an adjunct to active exercises in early rehabilitation following total knee arthroplasty - a randomized controlled trial. *Disabil Rehabil.* 2008 May 10:1-7 [Epub ahead of print].
11. Yashar AA, Venn-Watson E, Welsh T et al. Continuous passive motion with accelerated flexion after total knee arthroplasty. *Clin Orthop* 1997; 345:38-43.
12. 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.
13. Pope RO, Corcoran S, McCaul K et al. Continuous passive motion after primary total knee arthroplasty. Does it offer any benefits? *J Bone Joint Surg Br* 1997; 79(6):914-7.
14. Kumar PJ, McPherson EJ, Dorr LD et al. Rehabilitation after total knee arthroplasty: a comparison of 2 rehabilitation techniques. *Clin Orthop* 1996; 331:93-101.
15. Wright RW, Preston E, Fleming BC, et al. A systematic review of anterior cruciate ligament reconstruction rehabilitation: part I: continuous passive motion, early weight bearing, postoperative bracing, and home-based rehabilitation. *J Knee Surg* 2008; 21(3):217-24.
16. Salter RB. The biologic concept of continuous passive motion of synovial joints. The first 18 years of basic research and its clinical application. *Clin Orthop Relat Res* 1989; (242):12-25.

17. Nugent-Derfus GE, Takara T, O'Neill JK, et al. Continuous passive motion applied to whole joints stimulates chondrocyte biosynthesis of PRG4. *Osteoarthritis Cartilage* 2007; 15(5):566-74.
18. Browne JE, Anderson AF, Arciero R et al. Clinical outcome of autologous chondrocyte implantation at 5 years in US subjects. *Clin Orthop Relat Res* 2005; (436):237-45.
19. Farr J. Autologous chondrocyte implantation improves patellofemoral cartilage treatment outcomes. *Clin Orthop Relat Res* 2007; 463:187-94.
20. Rosenberger RE, Gomoll AH, Bryant T et al. Repair of large chondral defects of the knee with autologous chondrocyte implantation in patients 45 years or older. *Am J Sports Med* 2008 Aug 25 [Epub ahead of print].
21. Simkin PA, de Lateur BJ, Alquist AD et al. Continuous passive motion for osteoarthritis of the hip: a pilot study. *J Rheumatol* 1999; 26(9):1987-91.
22. Lastayo PC, Wright T, Jaffe R et al. Continuous passive motion after repair of the rotator cuff. A prospective outcome study. *J Bone Joint Surg Am* 1998; 80(7):1002-11.
23. Raab MG, Rzeszutko D, O'Connor W et al. Early results of continuous passive motion after rotator cuff repair: a prospective, randomized, blinded, controlled study. *Am J Orthop* 1996; 25(3):214-20.
24. Lynch D, Ferraro M, Krol J et al. Continuous passive motion improves shoulder joint integrity following stroke. *Clin Rehabil* 2005; 19(6):594-9.
25. Gelberman RH, Nunley JA, Osterman AL et al. Influences on the protected passive mobilization interval on flexor tendon healing. A prospective randomized clinical study. *Clin Orthop* 1991; 264:189-96.
26. Ring D, Simmons BP, Hayes M. Continuous passive motion following metacarpophalangeal joint arthroplasty. *J Hand Surg [Am]* 1998; 23(3):505-11.
27. Schwartz DA, Chafetz R. Continuous passive motion after tenolysis in hand therapy patients: a retrospective study. *J Hand Ther* 2008; 21(3):261-6.
28. Zeifang F, Carstens C, Schneider S et al. Continuous passive motion versus immobilisation in a cast after surgical treatment of idiopathic club foot in infants: a prospective, blinded, randomised, clinical study. *J Bone Joint Surg Br* 2005; 87(12):1663-5.
29. Kasten P, Geiger F, Zeifang F 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* 2007; 89(3):375-7.
30. Postel JM, Thoumie P, Missaoui B et al. French Physical Medicine and Rehabilitation Society. Continuous passive motion compared with intermittent mobilization after total knee arthroplasty. Elaboration of French clinical practice guidelines. *Ann Readapt Med Phys* 2007; 50(4):244-57.
31. Medicare Policy: www.cms.hhs.gov/manuals/06_cim/ci60.asp

Eligible Providers

Surgeons and DME providers

Related Policies

BCBSVT Medical Policy: Durable Medical Equipment, Medical Equipment and Supplies

Policy Implementation/Update information

11/2005	Reviewed and updated with additional clinical criteria.
01/2007	Reviewed and updated with change in description and clarification of criteria. Reviewed and approved by the BCBSVT Clinical Advisory Committee March 2007.
11/2007	Updated with minor wording changes.
04/2010	Updated to mirror BCBSA Medical Policy, but preserving individual consideration for rehabilitation failure requiring repeat surgery.
1/2011	Reviewed and updated with additional clinical criteria, clarification of existing criteria. Minor wording changes
2/2014	ICD-10 remediation only. RLJ

Administrative and Contractual Guidance

Benefit Determination Guidance

Prior approval is required and benefits are subject to all terms, limitations and conditions of the subscriber contract.

For New England Health Plan (NEHP) members an approved referral authorization is required.

Benefits for FEP members may vary. Please consult the FEP Service Plan Brochure.

Coverage varies according to the member's group or individual contract. Not all groups are required to follow the Vermont legislative mandates. Member Contract language takes precedence over medical policy when there is a conflict.

If the member receives benefits through a self-funded (ASO) group, benefits may vary or not apply. To verify benefit information, please refer to the member's plan documents or contact the customer service department.

Billing and Coding/Physician Documentation Information

See Attachments I, II and III below for coding tables & instructions as applicable.

Audit Information

BCBSVT reserves the right to conduct audits on any provider and/or facility to ensure compliance with the guidelines stated in the medical policy. If an audit identifies instances of non-compliance with this medical policy, BCBSVT reserves the right to recoup all non-compliant payments.

Spencer Borden MD
Chair, Medical Policy Committee

Robert Wheeler MD
Chief Medical Officer

Attachment I

CPT procedure code table & Instructions

Code Type	Number	Brief Description	Policy Instructions
The following codes will be considered as medically necessary when applicable criteria have been met.			
HCPCS	E0935	Continuous passive motion exercise device for use on knee only	Prior Approval Required
HCPCS	E0936	Continuous passive motion exercise device for use other than knee	Prior Approval Required
Type of Service		Durable Medical Equipment	
Place of Service		Home, Outpatient	

Attachment II
ICD-9 diagnosis table

ICD-9 Code	Description	ICD-9 Code	Description
337.20	Reflex sympathetic dystrophy, unspecified	718.77	Developmental dislocation of joint, ankle and foot
337.21	Reflex sympathetic dystrophy of the upper limb	718.78	Developmental dislocation of joint, other specified sites

337.22	Reflex sympathetic dystrophy of the lower limb	718.79	Developmental dislocation of joint, multiple sites
337.29	Reflex sympathetic dystrophy of other specified site	718.80	Other joint derangement, not elsewhere classified, involving unspecified site
717.0	Old bucket handle tear of medial meniscus	718.81	Other joint derangement, not elsewhere classified, involving shoulder region
717.1	Derangement of anterior horn of medial meniscus	718.82	Other joint derangement, not elsewhere classified, involving upper arm
717.2	Derangement of posterior horn of medial meniscus	718.83	Other joint derangement, not elsewhere classified, involving forearm
717.3	Other and unspecified derangement of medial meniscus	718.84	Other joint derangement, not elsewhere classified, involving hand
717.40	Derangement of lateral meniscus, unspecified	718.85	Other joint derangement, not elsewhere classified, involving pelvic region and thigh
717.41	Bucket handle tear of lateral meniscus	718.86	Other joint derangement, not elsewhere classified, involving lower leg
717.42	Derangement of anterior horn of lateral meniscus	718.87	Other joint derangement, not elsewhere classified, involving ankle and foot
717.43	Derangement of posterior horn of lateral meniscus	718.88	Other joint derangement, not elsewhere classified, involving other specified sites
717.49	Other derangement of lateral meniscus	718.89	Other joint derangement, not elsewhere classified, involving multiple sites
717.5	Derangement of meniscus, not elsewhere classified	718.90	Unspecified derangement of joint, site unspecified
717.6	Loose body in knee	718.91	Unspecified derangement of joint of shoulder region
717.7	Chondromalacia of patella	718.92	Unspecified derangement of upper arm joint

717.81	Old disruption of lateral collateral ligament	718.93	Unspecified derangement of forearm joint
717.82	Old disruption of medial collateral ligament	718.94	Unspecified derangement of hand joint
717.83	Old disruption of anterior cruciate ligament	718.95	Unspecified derangement of joint of pelvic region and thigh
717.84	Old disruption of posterior cruciate ligament	718.97	Unspecified derangement of ankle and foot joint
717.85	Old disruption of other ligaments of knee	718.98	Unspecified derangement of joint of other specified sites
717.89	Other internal derangement of knee	718.99	Unspecified derangement of joint of multiple sites
717.9	Unspecified internal derangement of knee	726.0	Adhesive capsulitis of shoulder
718.00	Articular cartilage disorder, site unspecified	726.10	Disorders of bursae and tendons in shoulder region, unspecified
718.01	Articular cartilage disorder involving shoulder region	726.11	Calcifying tendinitis of shoulder
718.02	Articular cartilage disorder involving upper arm	726.12	Bicipital tenosynovitis
718.03	Articular cartilage disorder involving forearm	726.13	Partial tear of rotator cuff
718.04	Articular cartilage disorder involving hand	726.19	Other specified disorders of bursae and tendons in shoulder region
718.05	Articular cartilage disorder involving pelvic region and thigh	726.2	Other affections of shoulder region, not elsewhere classified
718.07	Articular cartilage disorder involving ankle and foot	726.30	Enthesopathy of elbow, unspecified
718.08	Articular cartilage disorder involving other specified sites	726.31	Medial epicondylitis
718.09	Articular cartilage disorder involving multiple sites	726.32	Lateral epicondylitis
718.10	Loose body in joint, site unspecified	726.33	Olecranon bursitis
718.11	Loose body in joint of shoulder region	726.39	Other enthesopathy of elbow region
718.12	Loose body in upper arm joint	726.4	Enthesopathy of wrist and carpus
718.13	Loose body in forearm joint	726.5	Enthesopathy of hip region

718.14	Loose body in hand joint	726.60	Enthesopathy of knee, unspecified
718.15	Loose body in joint of pelvic region and thigh	726.61	Pes anserinus tendinitis or bursitis
718.17	Loose body in ankle and foot joint	726.62	Tibial collateral ligament bursitis
718.18	Loose body in joint of other specified sites	726.63	Fibular collateral ligament bursitis
718.19	Loose body in joint of multiple sites	726.64	Patellar tendinitis
718.20	Pathological dislocation of joint, site unspecified	726.65	Prepatellar bursitis
718.21	Pathological dislocation of joint of shoulder region	726.69	Other enthesopathy of knee
718.22	Pathological dislocation of upper arm joint	726.70	Enthesopathy of ankle and tarsus, unspecified
718.23	Pathological dislocation of forearm joint	726.71	Achilles bursitis or tendinitis
718.24	Pathological dislocation of hand joint	726.72	Tibialis tendinitis
718.25	Pathological dislocation of joint of pelvic region and thigh	726.73	Calcaneal spur
718.26	Pathological dislocation of joint of lower leg	726.79	Other enthesopathy of ankle and tarsus
718.27	Pathological dislocation of ankle and foot joint	726.8	Other peripheral enthesopathies
718.28	Pathological dislocation of joint of other specified sites	728.6	Contracture of palmar fascia
718.29	Pathological dislocation of joint of multiple sites	732.7	Osteochondritis dissecans
718.30	Recurrent dislocation of joint, site unspecified	844.2	Sprain of cruciate ligament of knee
718.31	Recurrent dislocation of joint of shoulder region	V43.60	Joint replaced by other means, unspecified joint
718.32	Recurrent dislocation of upper arm joint	V43.61	Shoulder joint replaced by other means
718.33	Recurrent dislocation of forearm joint	V43.62	Elbow joint replaced by other means
718.34	Recurrent dislocation of hand joint	V43.63	Wrist joint replaced by other means

718.35	Recurrent dislocation of joint of pelvic region and thigh	V43.64	Hip joint replaced by other means
718.36	Recurrent dislocation of lower leg joint	V43.65	Knee joint replaced by other means
718.37	Recurrent dislocation of ankle and foot joint	V43.66	Ankle joint replaced by other means
718.38	Recurrent dislocation of joint of other specified sites	V43.69	Other joint replaced by other means
718.39	Recurrent dislocation of joint of multiple sites	V57.1	Care involving other physical therapy
718.40	Contracture of joint, site unspecified	337.2	Reflex sympathetic dystrophy
718.41	Contracture of joint of shoulder region	717.4	Derangement of lateral meniscus
718.42	Contracture of upper arm joint	717.8	Other internal derangement of knee
718.43	Contracture of forearm joint	718	Other derangement of joint
718.44	Contracture of hand joint	718.0	Articular cartilage disorder
718.45	Contracture of joint of pelvic region and thigh	718.1	Loose body in joint
718.46	Contracture of lower leg joint	718.2	Pathological dislocation
718.47	Contracture of ankle and foot joint	718.3	Recurrent dislocation of joint
718.48	Contracture of joint of other specified sites	718.4	Contracture of joint
718.49	Contracture of joint of multiple sites	718.60	Unspecified intrapelvic protrusion of acetabulum, site unspecified
718.65	Unspecified intrapelvic protrusion of acetabulum pelvic region and thigh	718.7	Developmental dislocation of joint
718.70	Developmental dislocation of joint, site unspecified	718.8	Other joint derangement, not elsewhere classified
718.71	Developmental dislocation of joint, shoulder region	718.9	Unspecified derangement of joint
718.72	Developmental dislocation of joint, upper arm	726.1	Rotator cuff syndrome of shoulder and allied disorders
718.73	Developmental dislocation of joint, forearm	726.3	Enthesopathy of elbow region
718.74	Developmental dislocation of joint, hand	726.6	Enthesopathy of knee

718.75	Developmental dislocation of joint, pelvic region and thigh	726.7	Enthesopathy of ankle and tarsus
718.76	Developmental dislocation of joint, lower leg		

Attachment III
ICD-10 diagnosis code table

ICD-10 Code	Description	ICD-10 Code	Description
M23.200	Derangement of unspecified lateral meniscus due to old tear or injury, right knee	M24.841	Other specific joint derangements of right hand, not elsewhere classified
M23.201	Derangement of unspecified lateral meniscus due to old tear or injury, left knee	M24.842	Other specific joint derangements of left hand, not elsewhere classified
M23.203	Derangement of unspecified medial meniscus due to old tear or injury, right knee	M24.851	Other specific joint derangements of right hip, not elsewhere classified
M23.204	Derangement of unspecified medial meniscus due to old tear or injury, left knee	M24.852	Other specific joint derangements of left hip, not elsewhere classified
M23.206	Derangement of unspecified meniscus due to old tear or injury, right knee	M24.871	Other specific joint derangements of right ankle, not elsewhere classified
M23.207	Derangement of unspecified meniscus due to old tear or injury, left knee	M24.872	Other specific joint derangements of left ankle, not elsewhere classified
M23.011	Cystic meniscus, anterior horn of medial meniscus, right knee	M24.874	Other specific joint derangements of right foot, not elsewhere classified
M23.012	Cystic meniscus, anterior horn of medial meniscus, left knee	M24.875	Other specific joint derangements left foot, not elsewhere classified
M23.211	Derangement of anterior horn of medial meniscus due to old tear or injury, right knee	M25.20	Flail joint, unspecified joint

M23.212	Derangement of anterior horn of medial meniscus due to old tear or injury, left knee	M53.2x9	Spinal instabilities, site unspecified
M23.311	Other meniscus derangements, anterior horn of medial meniscus, right knee	M24.811	Other specific joint derangements of right shoulder, not elsewhere classified
M23.312	Other meniscus derangements, anterior horn of medial meniscus, left knee	M24.812	Other specific joint derangements of left shoulder, not elsewhere classified
M23.021	Cystic meniscus, posterior horn of medial meniscus, right knee	M25.211	Flail joint, right shoulder
M23.022	Cystic meniscus, posterior horn of medial meniscus, left knee	M25.212	Flail joint, left shoulder
M23.221	Derangement of posterior horn of medial meniscus due to old tear or injury, right knee	M25.311	Other instability, right shoulder
M23.222	Derangement of posterior horn of medial meniscus due to old tear or injury, left knee	M25.312	Other instability, left shoulder
M23.321	Other meniscus derangements, posterior horn of medial meniscus, right knee	M24.821	Other specific joint derangements of right elbow, not elsewhere classified
M23.322	Other meniscus derangements, posterior horn of medial meniscus, left knee	M24.822	Other specific joint derangements of left elbow, not elsewhere classified
M23.031	Cystic meniscus, other medial meniscus, right knee	M25.221	Flail joint, right elbow
M23.032	Cystic meniscus, other medial meniscus, left knee	M25.222	Flail joint, left elbow
M23.039	Cystic meniscus, other medial meniscus, unspecified knee	M25.321	Other instability, right elbow
M23.200	Derangement of unspecified lateral meniscus due to old tear or injury, right knee	M25.322	Other instability, left elbow
M23.201	Derangement of unspecified lateral meniscus due to old tear or injury, left knee	M24.831	Other specific joint derangements of right wrist, not elsewhere classified

M23.203	Derangement of unspecified medial meniscus due to old tear or injury, right knee	M24.832	Other specific joint derangements of left wrist, not elsewhere classified
M23.204	Derangement of unspecified medial meniscus due to old tear or injury, left knee	M25.231	Flail joint, right wrist
M23.206	Derangement of unspecified meniscus due to old tear or injury, right knee	M25.232	Flail joint, left wrist
M23.207	Derangement of unspecified meniscus due to old tear or injury, left knee	M25.331	Other instability, right wrist
M23.231	Derangement of other medial meniscus due to old tear or injury, right knee	M25.332	Other instability, left wrist
M23.232	Derangement of other medial meniscus due to old tear or injury, left knee	M24.841	Other specific joint derangements of right hand, not elsewhere classified
M23.239	Derangement of other medial meniscus due to old tear or injury, unspecified knee	M24.842	Other specific joint derangements of left hand, not elsewhere classified
M23.239	Derangement of other medial meniscus due to old tear or injury, unspecified knee	M25.241	Flail joint, right hand
M23.300	Other meniscus derangements, unspecified lateral meniscus, right knee	M25.242	Flail joint, left hand
M23.301	Other meniscus derangements, unspecified lateral meniscus, left knee	M25.341	Other instability, right hand
M23.303	Other meniscus derangements, unspecified medial meniscus, right knee	M25.342	Other instability, left hand
M23.304	Other meniscus derangements, unspecified medial meniscus, left knee	M24.851	Other specific joint derangements of right hip, not elsewhere classified

M23.306	Other meniscus derangements, unspecified meniscus, right knee	M24.852	Other specific joint derangements of left hip, not elsewhere classified
M23.307	Other meniscus derangements, unspecified meniscus, left knee	M25.251	Flail joint, right hip
M23.331	Other meniscus derangements, other medial meniscus, right knee	M25.252	Flail joint, left hip
M23.332	Other meniscus derangements, other medial meniscus, left knee	M25.351	Other instability, right hip
M23.339	Other meniscus derangements, other medial meniscus, unspecified knee	M25.352	Other instability, left hip
M23.339	Other meniscus derangements, other medial meniscus, unspecified knee	M23.51	Chronic instability of knee, right knee
M23.200	Derangement of unspecified lateral meniscus due to old tear or injury, right knee	M23.52	Chronic instability of knee, left knee
M23.201	Derangement of unspecified lateral meniscus due to old tear or injury, left knee	M23.8x1	Other internal derangements of right knee
M23.203	Derangement of unspecified medial meniscus due to old tear or injury, right knee	M23.8x2	Other internal derangements of left knee
M23.204	Derangement of unspecified medial meniscus due to old tear or injury, left knee	M25.261	Flail joint, right knee
M23.206	Derangement of unspecified meniscus due to old tear or injury, right knee	M25.262	Flail joint, left knee
M23.207	Derangement of unspecified meniscus due to old tear or injury, left knee	M25.269	Flail joint, unspecified knee
M23.261	Derangement of other lateral meniscus due to old tear or injury, right knee	M25.361	Other instability, right knee

M23.262	Derangement of other lateral meniscus due to old tear or injury, left knee	M25.362	Other instability, left knee
M23.300	Other meniscus derangements, unspecified lateral meniscus, right knee	M24.871	Other specific joint derangements of right ankle, not elsewhere classified
M23.301	Other meniscus derangements, unspecified lateral meniscus, left knee	M24.872	Other specific joint derangements of left ankle, not elsewhere classified
M23.303	Other meniscus derangements, unspecified medial meniscus, right knee	M24.874	Other specific joint derangements of right foot, not elsewhere classified
M23.304	Other meniscus derangements, unspecified medial meniscus, left knee	M24.875	Other specific joint derangements left foot, not elsewhere classified
M23.306	Other meniscus derangements, unspecified meniscus, right knee	M25.271	Flail joint, right ankle and foot
M23.307	Other meniscus derangements, unspecified meniscus, left knee	M25.272	Flail joint, left ankle and foot
M23.200	Derangement of unspecified lateral meniscus due to old tear or injury, right knee	M25.371	Other instability, right ankle
M23.201	Derangement of unspecified lateral meniscus due to old tear or injury, left knee	M25.372	Other instability, left ankle
M23.203	Derangement of unspecified medial meniscus due to old tear or injury, right knee	M25.374	Other instability, right foot
M23.204	Derangement of unspecified medial meniscus due to old tear or injury, left knee	M25.375	Other instability, left foot
M23.206	Derangement of unspecified meniscus due to old tear or injury, right knee	M25.28	Flail joint, other site
M23.207	Derangement of unspecified meniscus due to old tear or injury, left knee	M53.2x1	Spinal instabilities, occipito-atlanto-axial region

M23.041	Cystic meniscus, anterior horn of lateral meniscus, right knee	M53.2x2	Spinal instabilities, cervical region
M23.042	Cystic meniscus, anterior horn of lateral meniscus, left knee	M53.2x3	Spinal instabilities, cervicothoracic region
M23.241	Derangement of anterior horn of lateral meniscus due to old tear or injury, right knee	M53.2x4	Spinal instabilities, thoracic region
M23.242	Derangement of anterior horn of lateral meniscus due to old tear or injury, left knee	M53.2x5	Spinal instabilities, thoracolumbar region
M23.341	Other meniscus derangements, anterior horn of lateral meniscus, right knee	M53.2x6	Spinal instabilities, lumbar region
M23.342	Other meniscus derangements, anterior horn of lateral meniscus, left knee	M24.9	Joint derangement, unspecified
M23.051	Cystic meniscus, posterior horn of lateral meniscus, right knee	M24.9	Joint derangement, unspecified
M23.052	Cystic meniscus, posterior horn of lateral meniscus, left knee	M24.9	Joint derangement, unspecified
M23.251	Derangement of posterior horn of lateral meniscus due to old tear or injury, right knee	M24.9	Joint derangement, unspecified
M23.252	Derangement of posterior horn of lateral meniscus due to old tear or injury, left knee	M24.9	Joint derangement, unspecified
M23.351	Other meniscus derangements, posterior horn of lateral meniscus, right knee	M24.9	Joint derangement, unspecified
M23.352	Other meniscus derangements, posterior horn of lateral meniscus, left knee	M24.9	Joint derangement, unspecified
M23.061	Cystic meniscus, other lateral meniscus, right knee	M24.9	Joint derangement, unspecified
M23.062	Cystic meniscus, other lateral meniscus, left knee	M24.9	Joint derangement, unspecified

M23.300	Other meniscus derangements, unspecified lateral meniscus, right knee	M24.9	Joint derangement, unspecified
M23.301	Other meniscus derangements, unspecified lateral meniscus, left knee	M75.01	Adhesive capsulitis of right shoulder
M23.303	Other meniscus derangements, unspecified medial meniscus, right knee	M75.02	Adhesive capsulitis of left shoulder
M23.304	Other meniscus derangements, unspecified medial meniscus, left knee	M66.211	Spontaneous rupture of extensor tendons, right shoulder
M23.306	Other meniscus derangements, unspecified meniscus, right knee	M66.212	Spontaneous rupture of extensor tendons, left shoulder
M23.307	Other meniscus derangements, unspecified meniscus, left knee	M66.811	Spontaneous rupture of other tendons, right shoulder
M23.361	Other meniscus derangements, other lateral meniscus, right knee	M66.812	Spontaneous rupture of other tendons, left shoulder
M23.362	Other meniscus derangements, other lateral meniscus, left knee	M75.101	Unspecified rotator cuff tear or rupture of right shoulder, not specified as traumatic
M23.000	Cystic meniscus, unspecified lateral meniscus, right knee	M75.102	Unspecified rotator cuff tear or rupture of left shoulder, not specified as traumatic
M23.001	Cystic meniscus, unspecified lateral meniscus, left knee	M75.51	Bursitis of right shoulder
M23.003	Cystic meniscus, unspecified medial meniscus, right knee	M75.52	Bursitis of left shoulder
M23.004	Cystic meniscus, unspecified medial meniscus, left knee	M75.31	Calcific tendinitis of right shoulder
M23.006	Cystic meniscus, unspecified meniscus, right knee	M75.32	Calcific tendinitis of left shoulder
M23.007	Cystic meniscus, unspecified meniscus, left knee	M75.21	Bicipital tendinitis, right shoulder
M23.009	Cystic meniscus, unspecified meniscus, unspecified knee	M75.22	Bicipital tendinitis, left shoulder

M23.009	Cystic meniscus, unspecified meniscus, unspecified knee	M75.111	Incomplete rotator cuff tear or rupture of right shoulder, not specified as traumatic
M23.200	Derangement of unspecified lateral meniscus due to old tear or injury, right knee	M75.112	Incomplete rotator cuff tear or rupture of left shoulder, not specified as traumatic
M23.201	Derangement of unspecified lateral meniscus due to old tear or injury, left knee	M75.81	Other shoulder lesions, right shoulder
M23.203	Derangement of unspecified medial meniscus due to old tear or injury, right knee	M75.82	Other shoulder lesions, left shoulder
M23.204	Derangement of unspecified medial meniscus due to old tear or injury, left knee	M25.711	Osteophyte, right shoulder
M23.206	Derangement of unspecified meniscus due to old tear or injury, right knee	M25.712	Osteophyte, left shoulder
M23.207	Derangement of unspecified meniscus due to old tear or injury, left knee	M75.31	Calcific tendinitis of right shoulder
M23.300	Other meniscus derangements, unspecified lateral meniscus, right knee	M75.32	Calcific tendinitis of left shoulder
M23.301	Other meniscus derangements, unspecified lateral meniscus, left knee	M75.41	Impingement syndrome of right shoulder
M23.303	Other meniscus derangements, unspecified medial meniscus, right knee	M75.42	Impingement syndrome of left shoulder
M23.304	Other meniscus derangements, unspecified medial meniscus, left knee	M75.81	Other shoulder lesions, right shoulder
M23.306	Other meniscus derangements, unspecified meniscus, right knee	M75.82	Other shoulder lesions, left shoulder
M23.307	Other meniscus derangements, unspecified meniscus, left knee	M75.91	Shoulder lesion, unspecified, right shoulder

Q68.6	Discoid meniscus	M75.92	Shoulder lesion, unspecified, left shoulder
M23.41	Loose body in knee, right knee	M25.721	Osteophyte, right elbow
M23.42	Loose body in knee, left knee	M25.722	Osteophyte, left elbow
M22.41	Chondromalacia patellae, right knee	M77.01	Medial epicondylitis, right elbow
M22.42	Chondromalacia patellae, left knee	M77.02	Medial epicondylitis, left elbow
M23.51	Chronic instability of knee, right knee	M77.11	Lateral epicondylitis, right elbow
M23.52	Chronic instability of knee, left knee	M77.12	Lateral epicondylitis, left elbow
M23.51	Chronic instability of knee, right knee	M70.21	Olecranon bursitis, right elbow
M23.52	Chronic instability of knee, left knee	M70.22	Olecranon bursitis, left elbow
M23.51	Chronic instability of knee, right knee	M70.31	Other bursitis of elbow, right elbow
M23.52	Chronic instability of knee, left knee	M70.32	Other bursitis of elbow, left elbow
M23.51	Chronic instability of knee, right knee	M25.731	Osteophyte, right wrist
M23.52	Chronic instability of knee, left knee	M25.732	Osteophyte, left wrist
M23.51	Chronic instability of knee, right knee	M25.741	Osteophyte, right hand
M23.52	Chronic instability of knee, left knee	M25.742	Osteophyte, left hand
M22.2x1	Patellofemoral disorders, right knee	M70.11	Bursitis, right hand
M22.2x2	Patellofemoral disorders, left knee	M70.12	Bursitis, left hand
M22.2x9	Patellofemoral disorders, unspecified knee	M77.21	Periarthritis, right wrist
M22.3x1	Other derangements of patella, right knee	M77.22	Periarthritis, left wrist
M22.3x9	Other derangements of patella, unspecified knee	M25.751	Osteophyte, right hip
M22.8x1	Other disorders of patella, right knee	M25.752	Osteophyte, left hip
M22.8x2	Other disorders of patella, left knee	M25.759	Osteophyte, unspecified hip
M23.601	Other spontaneous disruption of unspecified ligament of right knee	M70.61	Trochanteric bursitis, right hip
M23.602	Other spontaneous disruption of unspecified ligament of left knee	M70.62	Trochanteric bursitis, left hip

M23.609	Other spontaneous disruption of unspecified ligament of unspecified knee	M70.70	Other bursitis of hip, unspecified hip
M23.611	Other spontaneous disruption of anterior cruciate ligament of right knee	M70.70	Other bursitis of hip, unspecified hip
M23.612	Other spontaneous disruption of anterior cruciate ligament of left knee	M70.71	Other bursitis of hip, right hip
M23.621	Other spontaneous disruption of posterior cruciate ligament of right knee	M70.72	Other bursitis of hip, left hip
M23.622	Other spontaneous disruption of posterior cruciate ligament of left knee	M76.01	Gluteal tendinitis, right hip
M23.629	Other spontaneous disruption of posterior cruciate ligament of unspecified knee	M76.02	Gluteal tendinitis, left hip
M23.631	Other spontaneous disruption of medial collateral ligament of right knee	M76.10	Psoas tendinitis, unspecified hip
M23.632	Other spontaneous disruption of medial collateral ligament of left knee	M76.10	Psoas tendinitis, unspecified hip
M23.641	Other spontaneous disruption of lateral collateral ligament of right knee	M76.11	Psoas tendinitis, right hip
M23.642	Other spontaneous disruption of lateral collateral ligament of left knee	M76.12	Psoas tendinitis, left hip
M23.649	Other spontaneous disruption of lateral collateral ligament of unspecified knee	M76.21	Iliac crest spur, right hip
M23.671	Other spontaneous disruption of capsular ligament of right knee	M76.22	Iliac crest spur, left hip
M23.672	Other spontaneous disruption of capsular ligament of left knee	M76.30	Iliotibial band syndrome, unspecified leg

M23.8x1	Other internal derangements of right knee	M76.31	Iliotibial band syndrome, right leg
M23.8x2	Other internal derangements of left knee	M76.32	Iliotibial band syndrome, left leg
M22.91	Unspecified disorder of patella, right knee	M25.761	Osteophyte, right knee
M22.92	Unspecified disorder of patella, left knee	M25.762	Osteophyte, left knee
M23.91	Unspecified internal derangement of right knee	M70.51	Other bursitis of knee, right knee
M23.92	Unspecified internal derangement of left knee	M70.52	Other bursitis of knee, left knee
M24.111	Other articular cartilage disorders, right shoulder	M76.891	Other specified enthesopathies of right lower limb, excluding foot
M24.112	Other articular cartilage disorders, left shoulder	M76.892	Other specified enthesopathies of left lower limb, excluding foot
M24.121	Other articular cartilage disorders, right elbow	M76.41	Tibial collateral bursitis [Pellegrini-Stieda], right leg
M24.122	Other articular cartilage disorders, left elbow	M76.42	Tibial collateral bursitis [Pellegrini-Stieda], left leg
M24.131	Other articular cartilage disorders, right wrist	M76.891	Other specified enthesopathies of right lower limb, excluding foot
M24.132	Other articular cartilage disorders, left wrist	M76.892	Other specified enthesopathies of left lower limb, excluding foot
M24.141	Other articular cartilage disorders, right hand	M76.51	Patellar tendinitis, right knee
M24.142	Other articular cartilage disorders, left hand	M76.52	Patellar tendinitis, left knee
M24.151	Other articular cartilage disorders, right hip	M70.41	Prepatellar bursitis, right knee
M24.152	Other articular cartilage disorders, left hip	M70.42	Prepatellar bursitis, left knee
M24.171	Other articular cartilage disorders, right ankle	M76.891	Other specified enthesopathies of right lower limb, excluding foot
M24.172	Other articular cartilage disorders, left ankle	M76.892	Other specified enthesopathies of left lower limb, excluding foot

M24.174	Other articular cartilage disorders, right foot	M25.771	Osteophyte, right ankle
M24.175	Other articular cartilage disorders, left foot	M25.772	Osteophyte, left ankle
M24.011	Loose body in right shoulder	M25.774	Osteophyte, right foot
M24.012	Loose body in left shoulder	M25.775	Osteophyte, left foot
M24.021	Loose body in right elbow	M76.891	Other specified enthesopathies of right lower limb, excluding foot
M24.022	Loose body in left elbow	M76.892	Other specified enthesopathies of left lower limb, excluding foot
M24.031	Loose body in right wrist	M77.41	Metatarsalgia, right foot
M24.032	Loose body in left wrist	M77.42	Metatarsalgia, left foot
M24.041	Loose body in right finger joint(s)	M76.61	Achilles tendinitis, right leg
M24.042	Loose body in left finger joint(s)	M76.62	Achilles tendinitis, left leg
M24.051	Loose body in right hip	M76.811	Anterior tibial syndrome, right leg
M24.052	Loose body in left hip	M76.812	Anterior tibial syndrome, left leg
M24.071	Loose body in right ankle	M76.821	Posterior tibial tendinitis, right leg
M24.072	Loose body in left ankle	M76.822	Posterior tibial tendinitis, left leg
M24.074	Loose body in right toe joint(s)	M77.31	Calcaneal spur, right foot
M24.075	Loose body in left toe joint(s)	M77.32	Calcaneal spur, left foot
M24.08	Loose body, other site	M76.71	Peroneal tendinitis, right leg
M24.08	Loose body, other site	M76.72	Peroneal tendinitis, left leg
M24.311	Pathological dislocation of right shoulder, not elsewhere classified	M77.51	Other enthesopathy of right foot
M24.312	Pathological dislocation of left shoulder, not elsewhere classified	M77.52	Other enthesopathy of left foot
M24.321	Pathological dislocation of right elbow, not elsewhere classified	M76.891	Other specified enthesopathies of right lower limb, excluding foot
M24.322	Pathological dislocation of left elbow, not elsewhere classified	M76.892	Other specified enthesopathies of left lower limb, excluding foot
M24.331	Pathological dislocation of right wrist, not elsewhere classified	M76.9	Unspecified enthesopathy, lower limb, excluding foot
M24.332	Pathological dislocation of left wrist, not elsewhere classified	M77.8	Other enthesopathies, not elsewhere classified
M24.341	Pathological dislocation of right hand, not elsewhere classified	M77.8	Other enthesopathies, not elsewhere classified

M24.342	Pathological dislocation of left hand, not elsewhere classified	M72.0	Palmar fascial fibromatosis [Dupuytren]
M24.351	Pathological dislocation of right hip, not elsewhere classified	M72.0	Palmar fascial fibromatosis [Dupuytren]
M24.352	Pathological dislocation of left hip, not elsewhere classified	M93.20	Osteochondritis dissecans of unspecified site
M24.361	Pathological dislocation of right knee, not elsewhere classified	M93.20	Osteochondritis dissecans of unspecified site
M24.362	Pathological dislocation of left knee, not elsewhere classified	M93.211	Osteochondritis dissecans, right shoulder
M24.371	Pathological dislocation of right ankle, not elsewhere classified	M93.212	Osteochondritis dissecans, left shoulder
M24.372	Pathological dislocation of left ankle, not elsewhere classified	M93.221	Osteochondritis dissecans, right elbow
M24.374	Pathological dislocation of right foot, not elsewhere classified	M93.222	Osteochondritis dissecans, left elbow
M24.375	Pathological dislocation of left foot, not elsewhere classified	M93.231	Osteochondritis dissecans, right wrist
M24.411	Recurrent dislocation, right shoulder	M93.232	Osteochondritis dissecans, left wrist
M24.412	Recurrent dislocation, left shoulder	M93.241	Osteochondritis dissecans, joints of right hand
M24.421	Recurrent dislocation, right elbow	M93.242	Osteochondritis dissecans, joints of left hand
M24.422	Recurrent dislocation, left elbow	M93.249	Osteochondritis dissecans, joints of unspecified hand
M24.431	Recurrent dislocation, right wrist	M93.251	Osteochondritis dissecans, right hip
M24.432	Recurrent dislocation, left wrist	M93.252	Osteochondritis dissecans, left hip
M24.441	Recurrent dislocation, right hand	M93.261	Osteochondritis dissecans, right knee
M24.442	Recurrent dislocation, left hand	M93.262	Osteochondritis dissecans, left knee
M24.444	Recurrent dislocation, right finger	M93.269	Osteochondritis dissecans, unspecified knee
M24.445	Recurrent dislocation, left finger	M93.271	Osteochondritis dissecans, right ankle and joints of right foot

M24.451	Recurrent dislocation, right hip	M93.272	Osteochondritis dissecans, left ankle and joints of left foot
M24.452	Recurrent dislocation, left hip	M93.28	Osteochondritis dissecans other site
M22.01	Recurrent dislocation of patella, right knee	M93.29	Osteochondritis dissecans multiple sites
M22.02	Recurrent dislocation of patella, left knee	S83.501A	Sprain of unspecified cruciate ligament of right knee, initial encounter
M22.11	Recurrent subluxation of patella, right knee	S83.501D	Sprain of unspecified cruciate ligament of right knee, subsequent encounter
M22.12	Recurrent subluxation of patella, left knee	S83.501S	Sprain of unspecified cruciate ligament of right knee, sequela
M24.461	Recurrent dislocation, right knee	S83.502A	Sprain of unspecified cruciate ligament of left knee, initial encounter
M24.462	Recurrent dislocation, left knee	S83.502D	Sprain of unspecified cruciate ligament of left knee, subsequent encounter
M24.471	Recurrent dislocation, right ankle	S83.502S	Sprain of unspecified cruciate ligament of left knee, sequela
M24.472	Recurrent dislocation, left ankle	S83.509A	Sprain of unspecified cruciate ligament of unspecified knee, initial encounter
M24.474	Recurrent dislocation, right foot	S83.509A	Sprain of unspecified cruciate ligament of unspecified knee, initial encounter
M24.475	Recurrent dislocation, left foot	S83.509D	Sprain of unspecified cruciate ligament of unspecified knee, subsequent encounter
M24.477	Recurrent dislocation, right toe(s)	S83.511A	Sprain of anterior cruciate ligament of right knee, initial encounter
M24.478	Recurrent dislocation, left toe(s)	S83.511D	Sprain of anterior cruciate ligament of right knee, subsequent encounter
M43.3	Recurrent atlantoaxial dislocation with myelopathy	S83.511S	Sprain of anterior cruciate ligament of right knee, sequela

M43.4	Other recurrent atlantoaxial dislocation	S83.512A	Sprain of anterior cruciate ligament of left knee, initial encounter
M43.4	Other recurrent atlantoaxial dislocation	S83.512D	Sprain of anterior cruciate ligament of left knee, subsequent encounter
M43.5x2	Other recurrent vertebral dislocation, cervical region	S83.512S	Sprain of anterior cruciate ligament of left knee, sequela
M43.5x3	Other recurrent vertebral dislocation, cervicothoracic region	S83.519D	Sprain of anterior cruciate ligament of unspecified knee, subsequent encounter
M43.5x4	Other recurrent vertebral dislocation, thoracic region	S83.521A	Sprain of posterior cruciate ligament of right knee, initial encounter
M43.5x5	Other recurrent vertebral dislocation, thoracolumbar region	S83.521D	Sprain of posterior cruciate ligament of right knee, subsequent encounter
M43.5x6	Other recurrent vertebral dislocation, lumbar region	S83.521S	Sprain of posterior cruciate ligament of right knee, sequela
M43.5x7	Other recurrent vertebral dislocation, lumbosacral region	S83.522A	Sprain of posterior cruciate ligament of left knee, initial encounter
M43.5x8	Other recurrent vertebral dislocation, sacral and sacrococcygeal region	S83.522D	Sprain of posterior cruciate ligament of left knee, subsequent encounter
M24.511	Contracture, right shoulder	S83.522S	Sprain of posterior cruciate ligament of left knee, sequela
M24.512	Contracture, left shoulder	S83.529D	Sprain of posterior cruciate ligament of unspecified knee, subsequent encounter
M24.521	Contracture, right elbow	Z96.60	Presence of unspecified orthopedic joint implant
M24.522	Contracture, left elbow	Z96.60	Presence of unspecified orthopedic joint implant
M24.531	Contracture, right wrist	Z96.611	Presence of right artificial shoulder joint
M24.532	Contracture, left wrist	Z96.612	Presence of left artificial shoulder joint
M24.541	Contracture, right hand	Z96.621	Presence of right artificial elbow joint
M24.542	Contracture, left hand	Z96.622	Presence of left artificial elbow

			joint
M24.551	Contracture, right hip	Z96.631	Presence of right artificial wrist joint
M24.552	Contracture, left hip	Z96.632	Presence of left artificial wrist joint
M24.561	Contracture, right knee	Z96.641	Presence of right artificial hip joint
M24.562	Contracture, left knee	Z96.642	Presence of left artificial hip joint
M24.571	Contracture, right ankle	Z96.643	Presence of artificial hip joint, bilateral
M24.572	Contracture, left ankle	Z96.651	Presence of right artificial knee joint
M24.574	Contracture, right foot	Z96.652	Presence of left artificial knee joint
M24.575	Contracture, left foot	Z96.653	Presence of artificial knee joint, bilateral
M24.7	Protrusio acetabuli	Z96.661	Presence of right artificial ankle joint
M24.7	Protrusio acetabuli	Z96.662	Presence of left artificial ankle joint
M24.811	Other specific joint derangements of right shoulder, not elsewhere classified	Z96.691	Finger-joint replacement of right hand
M24.812	Other specific joint derangements of left shoulder, not elsewhere classified	Z96.692	Finger-joint replacement of left hand
M24.821	Other specific joint derangements of right elbow, not elsewhere classified	Z96.693	Finger-joint replacement, bilateral
M24.822	Other specific joint derangements of left elbow, not elsewhere classified	Z96.698	Presence of other orthopedic joint implants
M24.831	Other specific joint derangements of right wrist, not elsewhere classified	Z96.698	Presence of other orthopedic joint implants
M24.832	Other specific joint derangements of left wrist, not elsewhere classified	Z96.7	Presence of other bone and tendon implants

Z51.89	Encounter for other specified aftercare
--------	--