

Notice of Independent Review Decision

DATE OF REVIEW: JANUARY 25, 2013

IRO CASE #:

DESCRIPTION OF THE SERVICE OR SERVICES IN DISPUTE

12/07/2012 & 12/14/2012 Functional knee brace

A DESCRIPTION OF THE QUALIFICATIONS FOR EACH PHYSICIAN OR OTHER HEALTH CARE PROVIDER WHO REVIEWED THE DECISION

The Reviewer of this case is a board certified Orthopedic Surgeon and has been licensed in the State of Texas since 2010.

REVIEW OUTCOME

Upon independent review the reviewer finds that the previous adverse determination/adverse determinations should be:

- Upheld (Agree)
- Overturned (Disagree)
- Partially Overturned (Agree in part/Disagree in part)

INFORMATION PROVIDED TO THE IRO FOR REVIEW

Type of Document Received	Date(s) of Record
MRI of the right knee	09/28/2012
Progress note	10/04/2012
Operative report	10/30/2012
Progress note	11/13/2012
A letter	12/07/2012
A letter	12/14/2012
A letter	12/28/2012
Referral form	12/28/2012
A letter	01/07/2013

EMPLOYEE CLINICAL HISTORY [SUMMARY]:

This is a male who sustained work-related injury to his right knee on xx/xx/xx. There was no mechanism of injury noted on records review. He had an MRI of the right knee done on 09/28/2012 that showed tear of the medial meniscus. On 10/04/2012, he was seen at



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which time the examinee reported right knee popping, clicking, locking, and giving way. Subsequently, on 10/30/2012, performed right knee arthroscopy with ACL and PCL repair as well as partial medial and lateral meniscectomy. Postoperatively, he was treated with physical therapy.

He was then followed up at which time he was noted to have right knee pain and swelling and was recommended functional ACL knee brace.

ANALYSIS AND EXPLANATION OF THE DECISION INCLUDE CLINICAL BASIS, FINDINGS AND CONCLUSIONS USED TO SUPPORT THE DECISION.

The patient is now 3 months out from his surgery. He has completed his acute rehabilitation which included 6 weeks of hinged knee brace wear. He is undergoing physical therapy and an attempt is being made at returning him to work. His treating surgeon has recommended a functional ACL brace in order to reduce his pain and swelling and to help him return to work.

Functional bracing after ligament reconstruction remains controversial in isolated ACL reconstruction. There is some biomechanical data suggesting a functional knee brace can protect the ACL during anterior and posterior loading in both weight-bearing and non weight-bearing knee (fleming et al. Am J Sports Med. 2000 Nov-Dec;28(6):815-24). BENNYON ET AL. (Am J Sports Med. 1997 May-Jun;25(3):353-9) also found a protective effect offered by the brace in reducing anterior-posterior strain and torque. There is no literature, however, on multiligamentous knee injuries and reconstructions conclusively recommending for or against functional bracing.

Because of this controversy in the literature, many surgeons (myself included) will still offer functional bracing when returning a patient to full activity. The quadriceps and other dynamic stabilizing muscles around the knee are still weak this early in the post operative course. Many patients report feeling more confident in the operative knee when being braced for this reason.

In a multiligamentous knee reconstruction such as this, I believe that functional bracing is a very reasonable treatment recommendation for a patient that is 3 months out from surgery who desires to return to work and aggressive activity. As such, I recommend approval of this treatment adjunct.

ODG criteria met are knee instability and reconstructed ligament.

ODG Criteria for the use of knee braces:

Prefabricated knee braces may be appropriate in patients with one of the following conditions:

1. Knee instability
2. Ligament insufficiency/deficiency
3. Reconstructed ligament
4. Articular defect repair



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5. Avascular necrosis
6. Meniscal cartilage repair
7. Painful failed total knee arthroplasty
8. Painful high tibial osteotomy
9. Painful unicompartmental osteoarthritis
10. Tibial plateau fracture

Custom-fabricated knee braces may be appropriate for patients with the following conditions which may preclude the use of a prefabricated model:

1. Abnormal limb contour, such as:
 - a. Valgus [knock-kneed] limb
 - b. Varus [bow-legged] limb
 - c. Tibial varum
 - d. Disproportionate thigh and calf (e.g., large thigh and small calf)
 - e. Minimal muscle mass on which to suspend a brace
2. Skin changes, such as:
 - a. Excessive redundant soft skin
 - b. Thin skin with risk of breakdown (e.g., chronic steroid use)
3. Severe osteoarthritis (grade III or IV)
4. Maximal off-loading of painful or repaired knee compartment (example: heavy patient; significant pain)
5. Severe instability as noted on physical examination of knee



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**A DESCRIPTION AND THE SOURCE OF THE SCREENING CRITERIA OR OTHER
CLINICAL BASIS USED TO MAKE THE DECISION:**

- ACOEM- AMERICAN COLLEGE OF OCCUPATIONAL & ENVIRONMENTAL MEDICINE UM KNOWLEDGEBASE
- AHCPR- AGENCY FOR HEALTHCARE RESEARCH & QUALITY GUIDELINES
- DWC- DIVISION OF WORKERS COMPENSATION POLICIES OR GUIDELINES
- EUROPEAN GUIDELINES FOR MANAGEMENT OF CHRONIC LOW BACK PAIN
- INTERQUAL CRITERIA
- MEDICAL JUDGEMENT, CLINICAL EXPERIENCE AND EXPERTISE IN ACCORDANCE WITH
ACCEPTED MEDICAL STANDARDS**
- MERCY CENTER CONSENSUS CONFERENCE GUIDELINES
- MILLIMAN CARE GUIDELINES
- ODG- OFFICIAL DISABILITY GUIDELINES & TREATMENT GUIDELINES**
- PRESSLEY REED, THE MEDICAL DISABILITY ADVISOR
- TEXAS GUIDELINES FOR CHIROPRACTIC QUALITY ASSURANCE & PRACTICE PARAMETERS
- TEXAS TACADA GUIDELINES
- TMF SCREENING CRITERIA MANUAL
- PEER REVIEWED NATIONALLY ACCEPTED MEDICAL LITERATURE (PROVIDE A DESCRIPTION)**
(fleming et al. Am J Sports Med. 2000 Nov-Dec;28(6):815-24). BENNYON ET AL. (Am J Sports
Med. 1997 May-Jun;25(3):353-9)
- OTHER EVIDENCE BASED, SCIENTIFICALLY VALID, OUTCOME FOCUSED GUIDELINES (PROVIDE
A DESCRIPTION)**