

Evidence Discussion [CMM-312: Knee Surgery-Arthroscopic and Open Procedures: Anterior Cruciate Ligament (ACL) Reconstruction and Repair]

Risks of knee arthroscopy for anterior cruciate ligament (ACL) reconstruction include but are not limited to failure to improve, failure to heal, ACL graft retearing, iatrogenic articular cartilage damage, complications related to fixation implants, neurovascular injury, infection, ecchymosis, hemarthrosis, arthrofibrosis, deep venous thrombosis, pulmonary embolism, and death, as well as complications related to risks of general and local anesthesia. **1**

Given the potential possibility for significant complications, proper patient selection is crucial to minimize the risk-benefit ratio.

Symptoms of anterior cruciate ligament injury / tear may include pain as well as instability, mechanical symptoms such as blocked range of motion, weakness/giving way or buckling of the knee, or painful locking/clicking/catching/popping during weight-bearing activities. Supportive exam findings include joint effusion/ hemarthrosis, positive instability tests (Lachman, anterior drawer, pivot-shift), reduced range of motion and joint line tenderness. **2, 7**

ACL injuries often occur with concomitant meniscal tears (42%), ligament sprains (30% MCL), bone marrow contusions, articular chondral injuries and intra-articular fractures. Imaging via MRI or CT arthrogram may be helpful in identifying the extent of injury and should confirm a tear/disruption or significant laxity of the ACL that corresponds to the patient's symptoms and physical examination. **3**

It has been shown that many patients may improve with a course of conservative care and this may very well obviate the need for surgical treatment. **4** Rehabilitation as the first-line treatment, based on evidence from prospective studies, is not associated with increased joint injury as compared to management with early ACL reconstruction. **5** Meta-analysis suggests timing of ACL reconstructive surgery may not influence functional outcomes and postoperative complications. **6**

Low-demand patients with reduced ACL laxity or athletes not involved in sports requiring cutting/pivoting activities, or partial ACL tears without instability may be managed without surgery. **8** Operative management may be indicated in younger patients or high-demand athletes in order to anatomically reconstruct the ACL to lessen the chance of secondary meniscal or chondral injuries due to ongoing instability. **8**

As risk for major complications exists, symptoms, physical exam findings and imaging findings should support surgical intervention. Although the use of any coverage criteria includes the possible risk of delayed care, EviCore firmly believes the benefits of our evidence-based criteria best ensure patient safety and highly outweigh any clinical harms.

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