

CMM 312: ACI / ACT

A diagnosis of a cartilaginous defect necessitating ACI / ACT may be made based on history, physical examination, supportive imaging findings and direct visualization at arthroscopy or arthrotomy. History, exam and imaging are used to rule out inappropriate lesions and patients for treatment[1]. Candidates for the procedure need to be well selected for function limiting discrete high grade lesions in well aligned, stable knees without concomitant abnormalities [7]. Risks are increased by the fact that multiple interventions are needed for completion of the biopsy and grafting [2]. Surgical infection, bleeding, joint stiffness, chondrolysis, and residual limb weakness can occur. Besides the usual complications of surgery and anesthesia, graft complications include failures secondary to transplant hypertrophy, disturbed graft fusion, insufficient regeneration of cartilage, and delamination [3]. Given the potential possibility for significant complications, proper patient selection per EviCore's evidence based guidelines is crucial to minimize the risk benefit ratio and to best ensure patient safety. Although the use of any coverage criteria includes the possible risk of delayed care, EviCore firmly believes the benefits of our evidence based criteria highly outweigh any clinical harms [4,5,6].

1 – Niemeyer, P, et al. Autologous chondrocyte implantation for cartilage defects of the knee. *The Knee*. June 2016; 23(3): 426-35.

2 – Minas, T, et al. Autologous Chondrocyte Implantation. *JBJS Essential Surgical Techniques*. June 22, 2016; 6(2); e24.

3 – Harris, JD, et al. *ResearchGate: Osteoarthritis and Cartilage*. Feb 2011; 19(7):779-91.

4 – Pareek, Ayoosh, et al. Long-Term Outcomes after Autologous Chondrocyte Implantation. *Cartilage*. Oct 2016; 7(4): 298-308.

5 – Peterson, Lars, et al. Autologous chondrocyte implantation: a long-term follow-up. *Am J Sports Med*. Jun 2010; 38 (6): 1117-24.

6 – Minas, T, et al. Autologous chondrocyte implantation for joint preservation in patients with early osteoarthritis. *CORR*. Jan 2010; 468 (1): 147-157.

7 – Krill, Michael, et al. ACI for Knee Cartilage Defects: A Review of Indications, Technique, and Outcomes. *JBJS Reviews* 6(2): p e5, February 2018.