

Andernord D, Karlsson J, et al. Timing of Surgery of the Anterior Cruciate Ligament. Arthroscopy 2013;29(11):1863-1871.

Design: Systematic review

Study question: Are outcomes of ACL surgery more favorable when done early than when done after a delay?

Reasons not to cite as evidence:

- The review is generally inconclusive, with a main conclusion that there appear to be few or no differences between early and late ACL reconstruction with respect to subjective and objective outcomes, but adding that delaying reconstruction predisposed the knee to meniscal injury, instability, and chondral injury
- Some of the trials cited as randomized did not allocate patient to early or late reconstruction, but to different methods of reconstruction, with early or late surgery determined by non-random processes
 - o Barenius 2010 and Marcacci 1995 compared different reconstruction techniques and looked at timing as a post hoc analysis
- One study cited as an ACL reconstruction study (Meunier 2007) was actually a study of ACL suture repair, which has been abandoned, and probably should not be included in a review of current surgical alternatives
- Two randomized trials comparing early and late reconstruction (Raviraj 2010, Bottoni 2010) reported similar outcomes between groups, and Frobell, who compared early reconstruction with optional delayed reconstruction, also reported little effect of delayed surgery on outcomes as long as active physical therapy was being done in the nonoperative group
- The authors noted that the definitions of “early” and “delayed” surgery were too diverse to make consistent comparisons

References:

Barenius B, Nordlander M, et al. Quality of Life and Clinical Outcome After Anterior Cruciate Ligament Reconstruction Using Patellar Tendon Graft or Quadrupled Semitendinosus Graft An 8-Year Follow-up of a Randomized Controlled Trial. *Am J Sports Med* 2010;38:1533-1541

Bottoni CR, Liddell TR, et al. Postoperative range of motion following anterior cruciate ligament reconstruction using autograft hamstrings: A prospective, randomized clinical trial of early versus delayed reconstructions. *Am J Sports Med* 2008;36:656-662.

Frobell RB, Roos EM, Roos HP. A Randomized Trial of Treatment for Acute Anterior Cruciate Ligament Tears. *N Engl J Med* 2010;363:331-42.

Marcacci M, Zaffagnini S, et al. Early Versus Late Reconstruction for Anterior Cruciate Ligament Rupture: Results After Five Years of Followup. *Am J Sports Med* 1995;23:690-693

Meunier A, Odensten M, Good L. Long-term results after primary repair or non-surgical treatment of anterior cruciate ligament rupture: a randomized study with a 15-year follow-up. *Scand J Med Sci Sports* 2007; 17: 230–237

Raviraj A, Anand a, et al. A comparison of early and delayed arthroscopically-assisted reconstruction of the anterior cruciate ligament using hamstring autograft. *JBJS Br* 2010;92_B:521-6.