The ABCs of ACL Reconstruction

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Introduction

- ACL (anterior cruciate ligament) deficient knee at risk for
  - Articular cartilage loss
  - Osteoarthritis
  - Secondary meniscal tears
- Conservative management of ACL tears
  - Can yield satisfactory results in older, less active patients, although at risk for above
- Patients seeking to resume athletic activity are best served by ACL reconstruction

ACL repair vs. reconstruction

- Bony avulsion of distal ACL treated with bone to bone fixation
- Primary repair for midsubstance tears has yielded poor results
  - Patients reported pain, stiffness and instability
- Reconstruction is the mainstay of treatment

Autograft vs. allograft

- Autograft benefits
  - Thought to function better in athletes
    - Alteration of mechanical properties in allograft preparation
    - Takes allograft longer time to fully incorporate, with full strength often not achieved until 3 years
  - No risk for disease transmission
  - No risk for rejection
- Autograft risk/downsides
  - Longer surgery
  - Morbidity at harvest site

Autograft vs. allograft

- Allograft benefits
  - Decreased risk for arthrofibrosis
  - Smaller incisions, so better cosmetic outcome
- Allograft downsides
  - Risk of rejection
    - Patients have fevers post-op secondary to rejection
  - Risk of infection
  - Thought to function worse in elite athletes