Background
- The anterior cruciate ligament (ACL) is a structure within the knee that prevents anterior translation of the tibia on the femur as well as checks lateral rotation of the tibia and extension of the knee.1
- The ACL is typically injured in non-contact sports by a sudden deceleration prior to a change of direction or landing motion.2
- Female athletes are more than twice as likely to sustain an injury to the ACL.3
- An ACL injury is often accompanied by an injury to the meniscus of the same knee.4

Purpose
- The purpose of this case report is to provide a comprehensive account of the physical therapy treatment provided to a young female athlete after left anterior cruciate ligament reconstruction.

Patient History
- Patient was an 18 year old female lacrosse and track athlete.
- AS sustained a left ACL and medial meniscus injury while playing lacrosse at the high school level.
- AS underwent a left ACL reconstruction and left medial meniscectomy one prior to the initial evaluation.
- AS has a history of a right ACL injury three years prior to this event which was complicated by an infection after reconstruction.

Examination

Cardiovascular/Pulmonary
- Not Impaired

Integumentary
- Impaired
  - Incision on the anterior left knee over patella-cleavage and dry.
  - Wound along the posterior, lateral, and medial aspects of the knee.

Musculoskeletal
- Impaired
  - Gross strength impairments of the left knee.
  - Gross range of motion impairments of the left knee.
  - Ankle impaired due to pain and use of knee brace to stop knee flexion.

Neuromuscular
- Impaired
  - Decreased balance due to pain and impaired strength.

Communication, Affect, Cognition, and Learning Style
- Not Impaired

Tests and Measures
- Active Range of Motion (goniometry)
  - Knee Extension AROM: 0 degrees
  - Knee Flexion AROM: 140 degrees

Interventions
- Therapeutic exercise
- Neuromuscular reeducation
- Manual therapy
- Coordination, communication, documentation
- Patient instruction

Outcomes

Goal
- The patient will be able to reach 0 degrees of active knee extension within 6 weeks.
- The patient will be able to reach 140 degrees of active knee flexion within 6 weeks.
- The patient will be able to ambulate independently without the aid of crutches or a brace within 6 weeks.
- The patient will be able to drive without issue and not be on any pain medication within 6 weeks.

Discussion
- Achieved to normal knee range of motion.
- Achieved nearly full strength in surrounding musculature.
- Increased subjective Lower Extremity Functional Scale from forty to fifty six.
- Was still limited by surgeon’s protocol but should make full recovery and return to sport with continued rehabilitation.

References