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## ACL RUPTURE IN COLLEGIATE WRESTLER

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**Objective:** To educate others on unique Anterior Cruciate Ligament tears and percentage of usage of the ACL in normal daily function.

**Background:** Patient is an eighteen year old male participating in wrestling and football at the time of the injury. Patient now only participates in wrestling. No previous knee or chronic injuries were reported prior to this injury. Patient was playing football during the time of injury. The patient stated that he planted his foot down and was tackled at the same time when the injury occurred. The patient felt his knee twist and buckle. Patient complained of clicking inside the knee and had minimal swelling. He also complained of it being difficult to bear weight at the time. The patient did not seek further treatment until two months after the injury occurred when he received an MRI. His MRI showed a positive finding for an Anterior Cruciate Ligament rupture. His previous Athletic Trainer could not find a positive diagnosis for the patient prior to the MRI. **Differential Diagnosis:** Possible meniscal or ACL injury. **Treatment:** Doctors officially diagnosed the injury as a complete rupture of the ACL. The patient did not receive surgery immediately. Doctors have stated that he only uses about 50% of his ACL on a daily basis compared to a normal person who uses about 95% of their ACL daily. Because of this, the patient played on his rupture for seven months before receiving surgery. He played a whole season of high school football and a whole season of wrestling his senior year with the ACL ruptured. The patient only used a brace for better comfort during the seven months. The patient then received reconstructive surgery to repair the rupture. A hamstring tendon graft was used to repair the ruptured ACL. Because a tendon was taken from the hamstring, patient experienced a tight ACL and hamstring of the left leg post-surgery. The patient participated in Physical Therapy for five months to strengthen and stretch the new ACL and hamstring. After completing five months of physical therapy, the patient joined a college wrestling team in August 2013. The athletic training staff at the university started him on a quadriceps and hamstring strengthening rehabilitation program for about

one month. The staff also worked on continuous flexion and extension of the knee to where the patient could feel comfortable with doing activities with his knee. The patient continues to participate in daily stretching and strengthening protocols for his quadriceps and hamstring bilaterally.

**Deviation from the Expected/Uniqueness:** The patient still participated on a fully ruptured ACL for seven months with just complaining of minimal pain and discomfort. The athlete chose to complete two seasons of activities instead of receiving surgery immediately. The ratio of people who rupture their ACL is about 5 in every 100,000 people. It is interesting that the high school clinician could not diagnose the injury until the patient received an MRI two months post-injury. The patient was also told by doctors that he only uses about 50% of his ACL on a daily basis compared to anyone else who uses their ACL about 95%. The patient felt comfortable with the ACL ruptured and changed any discomfort by just wearing a brace. **Conclusions:** Not many people can play on a ruptured ACL for seven months before receiving any surgical repairs. We need to keep this in mind as Athletic Trainers so we are not sending our athletes back on the field and possibly causing them more damage. The athlete continues stretching protocols daily. **Key Words:** rupture, ACL, Anterior Cruciate Ligament