Background: The subject is a 16 y.o. male high school soccer player who is 66 inches tall, 130 lbs., and who has a previous history of knee chondromalacia 2 years prior. While playing in an away game on November 8, 2004, he collided with another player while both were attempting to gain possession of the ball. Upon contact, both players kicked each other in the opposing players’ anterior tibia. An audible “snap” was heard immediately. Following the contact the subject attempted to weight bear and walk, and felt his “lower leg bones move” within his leg, which resulted with his leg giving way. The subject had loss of function and ROM, which was instant at the lower leg and ankle. The subject expressed severe pain in his lower right medial leg, and noted visual deformity along the distal anterior and medial shaft of his right tibia, just minutes post injury, as well as presenting signs of shock. Differential Diagnosis: Arriving at the ER, the patient underwent an examination, and had x-rays taken, which revealed a closed fracture of the distal tibial shaft, being displaced posteriorly and superiorly to the proximal two thirds of the tibia.

Treatment: The ER physicians anesthetized the athlete to manually distract the bone, realigning the tibial shaft. Afterward, the parents opted for a long leg cast, so the athlete could be sustained, before bringing him to their orthopedic physician for a follow up examination 48 hours later. The orthopedic determined that the athlete had approximately 60% cortical contact on the lateral and 80% cortical contact on the anterior portion of the bone, also noting that the shaft was in an acceptable alignment for healing with closed treatment. However, the parents of the athlete opted for an open reduction and internal fixation (ORIF) operation, hoping to speed recovery. The student athlete was then seen again two days later, where an ORIF procedure on his tibia using an 8” stainless steel plate with 4 screws, was performed. An exam to check healing progress and comfort levels was performed each month for 6 months post-op, during which the athlete was showing signs of recovery. However, complaints of pain with jogging were reported, supposedly due to the hardware. The plate was removed later that month and the athlete was cleared to play 4 months later, on October 16th, 2005 having not completed any type of significant or structured rehabilitation. Uniqueness: In high school soccer, it is rare to find a tibial fracture with this mechanism or magnitude. The severity of deformity, displacement of the tibial fracture, along with treatment of an ORIF operation, as well as lack of a documented rehabilitation program and/or follow up treatment heightens the rarity. Especially since the athlete was planning on returning to competitive play. Conclusions: The athlete now presents approximately 10° loss of ROM and a strength deficit of 4+/5 with dorsiflexion, proprioceptive deficits, as well as point tenderness and palpable masses along the anterior medial tibial shaft and the anterior portion of the anterior tibialis muscle. These, along with painful kicking and reported “throbbing” of the lower leg with running and cutting, potentially could have been prevented following a rehabilitation program. The uniqueness of this injury with the sport, age, treatment, and lack of rehabilitation are all considerable factors, especially since it is usually recommended that with such a scenario, rehabilitation would have been warranted or insisted upon for return to competitive play. Key Words: Tibial Fracture, Open Reduction, Internal Fixation, Rehabilitation