Background: The purpose of this study is to report the healing process of a closed non-displaced fracture to the third metacarpal. A 17-year-old, male high school football player reported pain on the dorsal aspect of his right hand. The patient recalled being struck by a helmet while carrying the ball in his right hand. The patient had no history of injury to his hand. The patient was hesitant to move his wrist or fingers upon first observation. During evaluation of the injury, the patient’s distal right third metacarpal showed obvious deformity. The right third knuckle was depressed. Severe point tenderness was noted over the middle of the third metacarpal. The athlete was referred to the emergency room for an x-ray.

Differential Diagnosis:
1. Closed non-displaced fracture of the third metacarpal
2. Closed displaced fracture of the third metacarpal

Treatment: An x-ray revealed a closed non-displaced fracture to the middle of the right third metacarpal. Usual treatment for a closed non-displaced fracture to the metacarpal would involve casting the wrist and hand for at least four to five weeks to immobilize the proximal and distal joints of the injured area. In order to help this patient maintain (OR) regain good strength and flexibility, the athlete wore a cast for only twenty-six days, and then the cast was removed to allow the athlete to develop strength and active range of motion in the previously immobilized joints. The athlete participated in his next game following the removal of the cast; however, he wore a removable cast to protect his metacarpal that was still healing. The patient wore the removable cast for two weeks but only while participating in football practice and games.

Uniqueness: The athlete did not receive casting during the entire healing process. Normally, the cast is put on at the emergency room and not removed for at least four weeks. Instead, the athlete received casting for three weeks, had the cast removed to increase strength and range of motion, and used the same cast as a removable cast as protection for return to play. The removable cast was used during practice and games for two additional weeks.

Conclusion: Because this patient was a competitive athlete and was healing well after 26 days, he had to have his cast removed in order to decrease his recovery time post-casting. This allowed the patient to have normal strength and flexibility when he was able to return to play with no protective device after two weeks of rehabilitation and wearing a removable cast.

Key Words: Non-displaced third metacarpal fracture