



CASE STUDY



FOOT  
ANKLE

## Complex Ankle Fusion for Chronic Ankle Fracture Dislocation

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### History

A 70 year old male was presented for treatment of R ankle pain. A bimalleolar fracture was treated elsewhere with failed external fixation. When presented 3 months after the initial injury and treatment, the decision was made by the surgeon to treat with primary tibiotalar fusion.

### Surgical Procedure

The external fixator was first removed, and an anterior approach to the ankle was used exploiting the plane between the EHL and anterior tibialis tendon. Osteotomes and a rongeur were used to remove cartilage and expose subchondral bleeding bone. The lateral tibial cavity was filled with Bacterin OsteoSponge® filler. Saline soaked OsteoSponge® and OsteoSelect® DBM Putty were used in the fusion site. An anterior tibiotalar fusion plate provided fixation.

### Post-Operative Course

The patient remained non weight bearing for 8 weeks. At 8 weeks he was placed in a walking boot and allowed to WBAT (weight bear as tolerated). He started physical therapy and recovered with minimal pain. At a 6 month follow-up, the patient was fully weight bearing and pain free. He was performing all desired activities.

### Discussion/Results/Conclusion

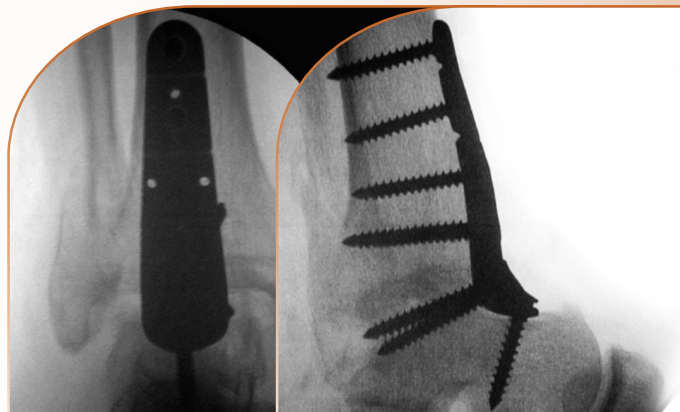
This was a very challenging case, in a very high risk individual, with a concern for healing complications. He also showed compliance issues. Use of Bacterin's OsteoSponge® filler, saline soaked OsteoSponge® and OsteoSelect® DBM Putty filled in the large defects. The application of these products provided stimulation resulting in rapid fusion, which was critical for this patient.

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**Figure 1**  
Pre-operative AP radiograph



**Figure 2**  
Inter-operative fluoroscopic views



**Figure 3** Post-operative radiographs: demonstrates consolidation of fusion site and incorporation of the bone graft