Case Study
A 49-year-old female presented to the clinic complaining of severe ankle and rearfoot pain. The patient had limited ankle joint range of motion (ROM) with pain noted throughout. She did not recall any significant trauma to the lower extremity but stated she had “rolled her ankle” at work several months previously. She also exhibited pain with ROM of the STJ. Conservative treatment including corticosteroid injections and bracing subsequently failed. Pre-operative radiographs and MRI revealed AVN of the talus affecting over 80% of the talar body (Figure 1 and 2). After thorough discussion of possible treatment options, the patient wished to proceed with the treatment plan, which consisted of STJ arthrodesis and ankle joint diastasis utilizing a multi-planar ring external fixator (TruLok, Orthofix). Cartilage resection was carried out through a small incision at the level of the posterior facet of the talus. All necrotic bone was excised by curettage. Application of mesenchymal stem cells (Trinity, Orthofix), the STJ utilizing osteotomes. The subchondral bone was fenestrated to augment the arthrodesis. Following external fixator removal and ankle arthroscopy the patient achieved pain free full range of motion at the ankle joint at 10 months post op with only mild discomfort after 6 hours of weightbearing activity. At the time of external fixation removal a lateral ankle joint stabilization (Figure 3 & 4). The patient was allowed to immediately weight bear within the multiplanar ring external fixator. STJ fusion (Figure 5).