

Triple Arthrodesis

Surgical Technique

An incision is made over the lateral malleolus, extending distally over the calcaneus and cuboid. The peroneal tendons and sural nerve are protected at the proximal end of the incision as the dissection is extended to allow the extensor digitorum brevis to be lifted, exposing the calcaneocuboid joint.

This joint is debrided with a curette and osteotome and multiple small holes are drilled on both sides. Next the subtalar joint is identified and cleared of soft tissue. The peroneal tendons are lifted laterally and posteriorly to allow access to the subtalar joint for debridement down to bleeding, cancellous bone. The third joint in the triple arthrodesis, the talonavicular joint, is exposed through an anteromedial incision over the medial malleolus. The joint surfaces are cleared of soft tissues and sclerotic bone. The three joints are reduced in as anatomical position as possible, making sure the hindfoot is in 8 to 10 degrees of valgus and the talonavicular and calcaneocuboid joints are in proper sagittal and axial plane alignment, as well as proper rotation avoiding forefoot supination or varus.

A large, partially-threaded, CompressX screw is inserted first to hold the subtalar joint, then the talonavicular and calcaneocuboid joints are fixed with a CompressX screw.

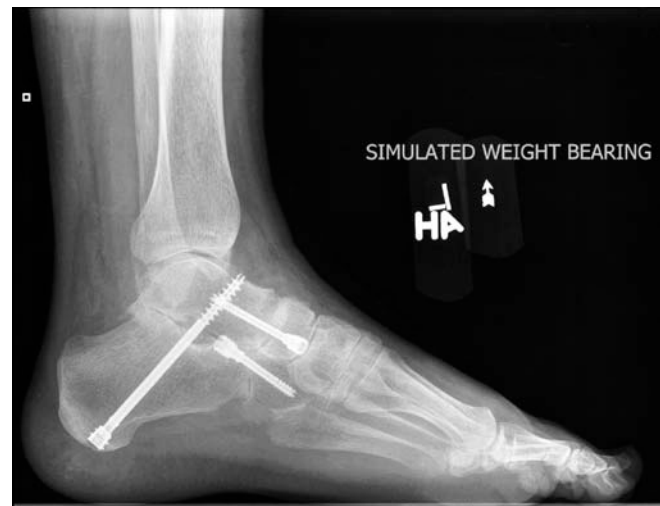
After the sutures are removed at 3 weeks, the patient is non-weight-bearing for 8 weeks, then progresses to full weight-bearing in a removeable boot. The boot is discontinued at about 12 weeks.

Post-op X-rays

Anterior Posterior Views



Lateral View



Post-operative lateral radiograph



