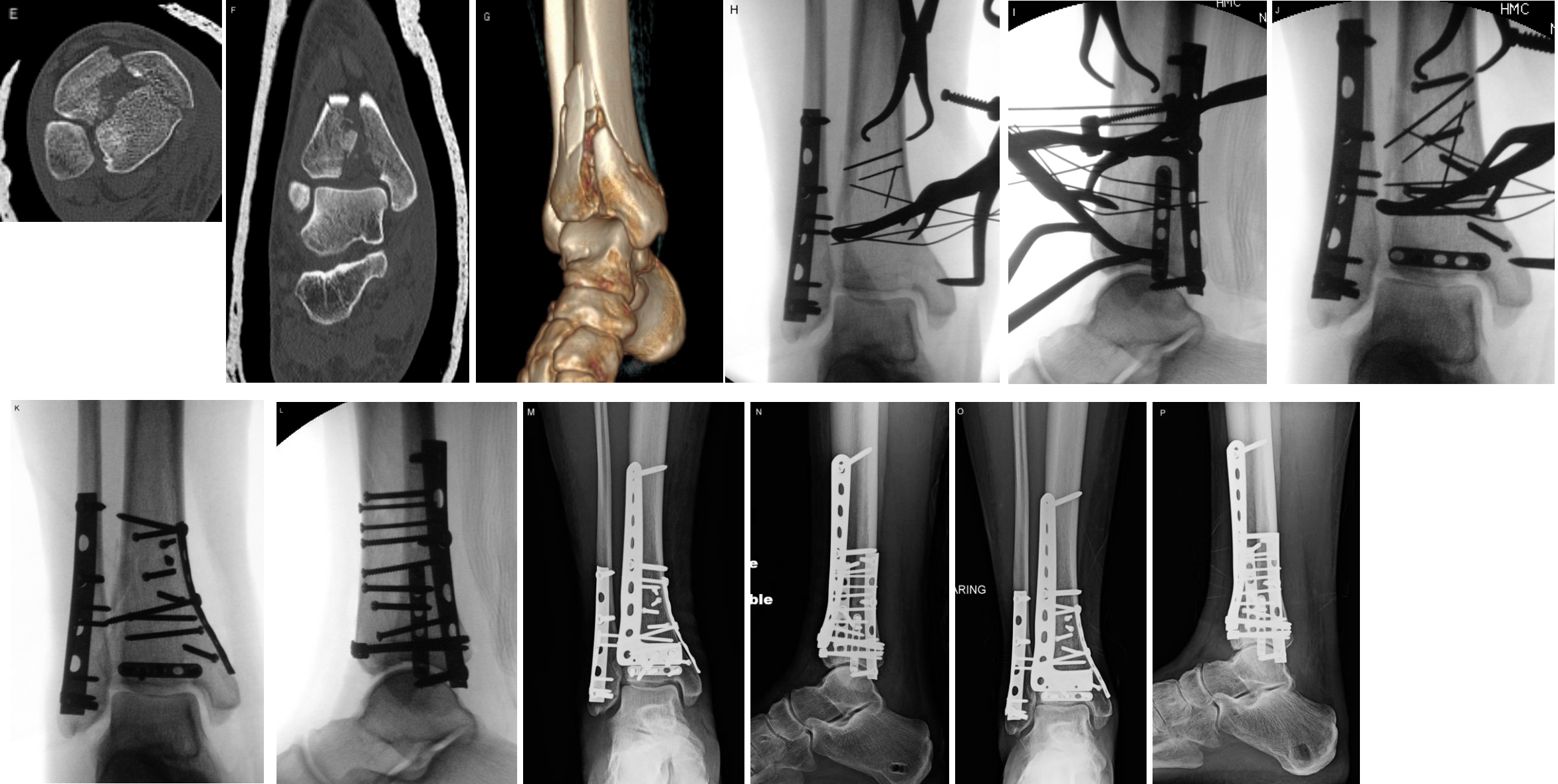




Supplemental Digital Content Figure 1. AP (A) and lateral (B) injury radiographs from the patient shown in Figure 5 demonstrate anterior and medial displacement of this partial articular injury in a 37-year-old female injured in a high-speed rollover motor vehicle collision. The posterior pillar remains intact. The tension failure fibular fracture was reduced and stabilized, and an ankle spanning external fixator was placed on the day of injury (C, D). *continued page 2*



The axial (E), coronal (F) and 3D (G) CT scans show the major articular fragments and the associated comminution. At day 10, through an anteromedial approach, the articular surface was reduced (H, I), and stabilized with a combination of 2.4 mm lag screws and small plates (J, K, L). The medial buttressing implant is a $\frac{1}{4}$ tubular plate and the anterior plate at the level of the joint is a 2.0 mm plate that functions as a washer to allow for compression of the articular surface. These mini-fragment screws have a cruciate head that allows for placement of plates directly over the screw heads. Counter-sinking is typically only required in the diaphysis or if considerable angulation of the independent lag screws is required for compression. Most of the stability of the final reduction is dependent on the combination of the reduction itself and the use of multiple mini-fragment lag screws and small low-profile plates. An anterolateral non-locking plate was used to complete the fixation (M, N). AP (O) and lateral (P) radiographs obtained xx months/years postoperatively showed that healing proceeded predictably and uneventfully.