

## Chopart Joint Injuries – 10-Year Results in 75 Cases

Stefan Rammelt, MD, PhD

**Category:** Hindfoot, Midfoot/Forefoot, Trauma

**Keywords:** mid-tarsal joint, fracture, dislocation, navicular, cuboid, anterior calcaneal process, talar head

**Introduction/Purpose:** Fractures and dislocations at the mid-tarsal (Chopart) joints have a relatively low incidence but a highly variable clinical presentation. They are among the most commonly overlooked or misinterpreted injuries to the human body with potentially deleterious consequences for global foot function. There are only few reports available on the long-term outcome of operative treatment following a standardized protocol in these injuries.

**Methods:** From 1994 to 2009 a total of 122 patients with mid-tarsal fractures and fracture-dislocations were entered into a prospective database. Injury patterns, comorbidities, treatment, and complications were documented. Seventy-three patients with 75 Chopart fracture-dislocations were available for follow-up treatment at an average of 10 years (range, 4-18 years). Mean patient age was 37.6 years, 68.5% were male. Foot function was assessed with the American Orthopaedic Foot and Ankle Society (AOFAS) Ankle-Hindfoot score, the Foot-Function-Index (FFI-D) and the SF-36 physical and mental component summary scores. Weight-bearing radiographs were obtained to assess alignment and posttraumatic arthritis.

**Results:** Motor-vehicle-accidents accounted for 53.4% of injuries. The navicular and cuboid bones were fractured more than twice as often as the talar head and anterior process of the calcaneus. In 54.7% of cases more than one of these bones was fractured. 29.3% of the patients were polytraumatized, another 26.7% had accompanying injuries to the same foot. At latest followup the AOFAS score averaged 71.5, the FFI averaged 26.9, and the mean SF-36 physical and mental summary scores were 43.5 and 51.2, respectively. Negative prognostic factors were a high ISS, work-related accidents, open injuries, multiple fractures and purely ligamentous dislocations (4%) at the Chopart joint, two-step operations, delay of treatment for more than 4 weeks, postoperative infection, closed reduction and the use of primary or secondary arthrodeses.

**Conclusion:** Fractures and fracture-dislocations at the Chopart joint are rare but severe injuries to the foot that lead to lasting functional restrictions in most cases in the long term. Purely ligamentous dislocations have the worst prognosis while injuries with fractures of a single bone have a better prognosis with open reduction and anatomical internal fixation. Fusions should be restricted to cases with completely destroyed joint surfaces.

---

Foot & Ankle Orthopaedics, 2(3)  
DOI: 10.1177/2473011417S000334  
©The Author(s) 2017