

**Return to the Operating Room Following Talus Fractures:  
Indications for Reoperation and Associated Risk Factors**

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**Purpose:** Fractures of the talus are uncommon injuries that remain poorly understood. Previous literature emphasizes the high complication rates and risk factors associated with avascular necrosis and posttraumatic arthritis. However, few studies evaluate the rates of and indications for return to the operating room, which may be helpful when counseling patients during rehabilitation. The goal of this project was twofold: (1) evaluate the rates of reoperation of talus fractures and (2) determine risk factors associated with reoperation rates.

**Methods:** All patients who underwent operative fixation of a talus fracture at a tertiary referral center from 2000-2021 were retrospectively reviewed. Patient demographics, comorbidities, additional injuries, and surgical approach were collected. Fracture morphology was classified on radiographic review by 2 authors, including involvement of the body, neck, head, lateral process, or combined injuries. Talar neck fractures were also classified according to the Hawkins classification. Multivariate logistic regression was performed to evaluate predictors for reoperation.

**Results:** Overall, 228 patients were included with an average follow-up of 1.2 years. Overall reoperation rate was 25.9% (n = 59). Most common indications for reoperation were removal of hardware (19.7%), debridement for tibiotalar impingement or symptomatic arthritis without fusion (9.6%), and tibiotalar or subtalar arthrodesis (8.3%). Gender, age, comorbidities, time to surgery, and fracture morphology was not different between patients who did and did not undergo a second surgery. Patients who had a reoperation more commonly had additional ipsilateral lower extremity injuries (P = 0.004), combined medial and lateral surgical approaches (P = 0.025), and a higher Hawkins classification (P = 0.004). The only predictor of reoperation in logistic regression was a higher Hawkins classification (P = 0.003).

**Conclusion:** This is one of the largest cohorts evaluating rates of and risk factors associated with return to the operating room after operative fixation of a talus fracture. Over a quarter of patients who undergo operative fixation of a talus fracture undergo a secondary surgery, most commonly for hardware removal. Return to the operating room was associated with higher Hawkins classification, an ipsilateral lower extremity injury, and combined medial and lateral surgical approaches.