

**Impact of Diabetes on Postoperative Outcomes of Metacarpal Shaft/Neck Fracture ORIF: An ACS NSQIP Analysis 2008-2016**

**Introduction:** Diabetes is a metabolic disorder known to increase risk of complications after fracture. This study aims to identify whether diabetes posed a risk for postoperative complications for patients who underwent metacarpal shaft/neck fracture open reduction and internal fixation (ORIF).

**Methods:** The ACS NSQIP database was queried via CPT codes between 2008 and 2016 for metacarpal shaft/neck fracture ORIF (CPT codes 26615). 1:1 propensity score matching controlling for age, gender, and estimated probability of morbidity provided two groups. Patient demographics, comorbidities, and 30-day post-operative outcomes were collected. Univariate analysis and multivariate logistic regression models were used to analyze diabetes as a risk factor for postoperative complications.

**Results:** Patients with diabetes tended to have higher BMI, more ASA 3 or 4 classifications, higher likelihood of hypertension that requires medication, and anemia. Patients with diabetes were found to have a higher estimated probability of morbidity and mortality. Post-operatively, patients with diabetes did not have significant increased risk for any adverse events, any postoperative complications, readmission, or reoperation (Table 1). Diabetes was not found to be an independent predictor of higher risk for any adverse event, wound complications, and sepsis-related complications. Diabetic patients were not found to have significantly higher risk for readmission or reoperation.

**Conclusion:** Despite a higher estimated probability of morbidity and mortality and more comorbid conditions, diabetes was not found to be a significant risk factor for readmission, reoperation or post-operative complications for patients undergoing metacarpal shaft/neck fracture ORIF. Caution should still be exercised when operating on patients with diabetes.