

# Paper #13

## Pre-Operative Opioid Use Independently Predicts Increased Risk of Early Revision of THA

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**Introduction:** There has been little research evaluating the impact of pre-operative opioid use on risk of subsequent revision after primary total hip arthroplasty (THA). The purpose of this study was to evaluate the impact of pre-operative opioid use on the risk of early THA revision.

**Methods:** The Humana database was queried for unilateral THA during the years 2007-2015. Patients were tracked for the occurrence of an ipsilateral revision THA for 2 years following the index procedure. Factors were analyzed for risk of early revision of THA including preoperative opioid use, age (<50 vs ≥ 50 years), sex, diabetes, anxiety/depression, chronic kidney disease (CKD) and obesity (BMI > 30kg/m<sup>2</sup>). Pre-operative opioid use was defined as a history of opioid prescription filled within 3 months prior to primary THA. Multivariate logistic regression analysis was utilized to determine odds ratios (OR) for risk of early revision after primary THA.

**Results:** 17,695 primary THA patients were analyzed and 0.88% (n = 155) had a revision THA procedure within 2 years of the index surgery. 36.7% of patients had filled an opioid prescription within 3 months prior to THA. Females comprised 58.7% of the cohort and 80% were > 50 years. Pre-operative opioid users were significantly more likely to undergo early THA revision than non-opioid users (1.2% vs 0.7%, p<0.001). Other patient factors that significantly increased the risk of early THA revision included obesity (1.3% vs 0.8%, p=0.03) and a pre-operative diagnosis of anxiety or depression (1.9% vs 0.8%, p=0.006).

**Conclusions:** Opioid use within 3 months prior to THA independently predicted an increased risk of early revision surgery. Independent predictors of early revision included obesity and a diagnosis of anxiety or depression. Further research is needed to evaluate if discontinuing opioids prior to surgery mitigates this risk.

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