

Department of Surgery
2026 Research Day
6th May 2026 (Wednesday) | 7 am – Noon | MART Auditorium

Title:

Patient–Level Factors Associated With Revision Blepharoplasty: A Large Database Retrospective Cohort Study

Author(s) and Affiliations:

Radhika Patel, Christian J. Leonardo, Anisha R. Kumar, MD
Division of Otolaryngology, Department of Surgery, Renaissance School of Medicine, Stony Brook University, Stony Brook, NY, USA.

Faculty Mentor(s):

Anisha R. Kumar, MD

Background:

Blepharoplasty is a commonly performed facial plastic surgery procedure, with a subset of patients requiring revision.

Methods:

This retrospective cohort study evaluated patient-level characteristics associated with revision blepharoplasty using the TriNetX Research Network database, including patients who underwent blepharoplasty between 2012 and 2026. Patients were stratified into revision and non-revision cohorts using CPT, ICD-10, and SNOMED codes, and group differences were assessed using t-tests and two-proportion z-tests ($p < 0.05$).

Results (or Preliminary Results):

Among 74,044 patients, 2,108 (2.85%) underwent revision surgery. Patients requiring revision were slightly younger (69.3 vs 70.0 years, $p = 0.0141$), more frequently female (77% vs 74%, $p = 0.0005$), and more likely to be Asian (8% vs 4%, $p < 0.0001$). The revision cohort had higher rates of ocular disease (88% vs 86%, $p = 0.0104$), particularly keratoconjunctivitis (10% vs 5%, $p < 0.0001$), headache (19% vs 15%, $p < 0.0001$), and migraine (11% vs 8%, $p < 0.0001$). Autoimmune conditions, including musculoskeletal and connective tissue diseases (66% vs 61%, $p < 0.0001$), multiple sclerosis (1% vs 1%, $p = 0.0086$), and thyroid disorders (26% vs 23%, $p = 0.0004$), were more prevalent among revision patients. Endocrine, nutritional, and metabolic diseases (66% vs 61%, $p < 0.0001$), mental health disorders including anxiety and stress-related disorders (30% vs 26%, $p = 0.0002$) and mood disorders (24% vs 21%, $p = 0.0032$), as well as use of anticoagulants (aspirin: 31% vs 28%, $p = 0.0002$; heparin: 20% vs 18%, $p = 0.0061$) and glucocorticoids (79% vs 73%, $p < 0.0001$) were also associated with revision.

Conclusions (or Preliminary Conclusions):

These findings suggest that targeted preoperative assessment and optimization of modifiable risk factors may reduce revision rates following blepharoplasty.