

## Trends and Perioperative Outcomes in Combined Abdominoplasty and Elective Breast Surgery in the United States, 2004-2011

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**Background:** Combined procedures involving elective breast surgery at the time of abdominoplasty are frequently performed procedures in aesthetic plastic surgery. While deemed to be safe outpatient procedures, many surgeons elect to perform combined abdominoplasty/breast surgery as inpatient surgery. The purpose of this study was to explore the frequency, acute post-operative complications, and costs of performing the combined procedure as inpatient in the United States.

**Methods:** We evaluated the Nationwide Inpatient Sample (NIS) database from 2004-2011. We used ICD-9 CM procedural codes to identify hospitalizations where patients underwent abdominoplasty combined with an elective breast procedure (reduction mammoplasty, mastopexy, and/or augmentation mammoplasty). We trended the frequency of this combined procedure, and evaluated the rate of acute post-operative complications, length of inpatient hospitalization, and total hospital charges.

**Results:** A total of 29,235 combined abdominoplasty/breast procedures were performed as inpatient in the United States between 2004-2011. Mean age was 44 years and the majority of patients were Caucasian. The majority of payer type were private insurance (47%) followed by self-payer (43%). The most of these procedures were performed in teaching hospitals (57%). The rate of major post-operative complications in the acute hospitalization period was 1.12% and included acute respiratory failure (0.6%), pneumonia (0.3%), VTE (0.1%), myocardial infarction (0.1%) and cerebrovascular accident (0.02%). Mean hospitalization period was 1.8 days and resulted in \$31,177 of hospital charges. The demographics of the combined procedure transitioned as the 1) frequency of inpatient surgeries decreased, 2) percent of patients >50 years old increased, and 3) total hospital charges increased from 2004-2011.

**Conclusion:** A significant number of surgeons are performing combined abdominoplasty and elective breast surgery as inpatient procedures in the United States. The combined surgery is safe but is associated with a small risk of major post-operative complications. A short inpatient hospitalization may serve beneficial for high-risk patients interested in combined procedures, but must be analyzed against the rising costs of inpatient surgery.