

# Examination of hospital readmissions after plastic surgery aims to cut costs, enhance patient care

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For patients undergoing plastic and reconstructive surgery procedures, obesity, anemia and postoperative complications—especially surgical and wound complications—are independent risk factors for hospital readmission, reports a study in the September issue of *Plastic and Reconstructive Surgery*.

"Patients experiencing postoperative surgical complications were six times more likely to be readmitted," write Dr. John P. Fischer and colleagues at the Hospital of the University of Pennsylvania, Philadelphia, in an analysis of plastic and reconstructive surgeries. "These findings can assist surgeons and health systems in better tailoring preoperative counseling, resource allocation and postoperative discharge services."

## What Factors Affect Readmission Risk after Plastic Surgery?

The researchers analyzed detailed information on nearly 10,700 patients undergoing plastic and reconstructive surgical procedures during 2011, drawn from an American College of Surgeons database. The patients' average age was 49.5 years; about 80 percent were women. Most patients were undergoing some type of breast surgery, including elective/cosmetic breast surgery, [breast reconstruction](#) or revision breast procedures.

The overall rate of hospital readmission within 30 days after surgery was 4.5 percent. Certain types of operations such as elective/cosmetic plastic surgery and [hand surgery](#) were associated with lower readmission rates. Patients undergoing more complex procedures—especially muscle flaps, wound debridement, or autologous reconstruction procedures—were more likely to be readmitted.

Most of the patients were healthy, although 32 percent were obese and 18 percent had anemia. After adjustment for other factors, both of these [health factors](#) were associated with an increase in readmission risk: by 20 percent for [obese patients](#) and 80 percent for those with anemia.

## **Surgical and Wound Complications Bring Sharp Increases in Risk**

Patients with any type of postoperative complication had the greatest increase in readmission. The overall complication rate was about 11 percent, including nearly a five percent rate of major surgical complications.

After adjusted analysis, risk of readmission was six times higher for patients with surgery-related complications and five times higher for those with wound-related complications. Patients with complications related to medical conditions also had a twofold increase in readmission risk.

Unplanned hospital admissions after surgery have become an important indicator of the quality and excess costs of healthcare. "Readmission following surgical procedures can be common and extremely costly for healthcare systems," according to Dr. Fischer and coauthors. The new analysis is one of the first large studies to focus on the risks of readmission after plastic surgery.

The results highlight specific types of plastic and reconstructive surgical procedures associated with an increased risk of rehospitalization.

Although obesity and anemia are important contributors, the "critical finding" is the increased readmission risk associated with [postoperative complications](#).

Dr. Fischer and colleagues hope their results will inform efforts to lower [readmission rates](#) in high-risk groups of [plastic and reconstructive surgery](#) patients. They write, "These findings highlight the importance of early recognition of complication, careful preoperative patient selection and counseling, and early intervention and close follow-up in higher risk cohorts." Such efforts may become especially important as hospitals face possible financial consequences related to "unplanned readmissions" under health care reform.

Provided by Wolters Kluwer Health

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