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## Implant-Based Breast Reconstruction Has Higher Failure Rate in Obese Patients

**Especially in Severe Obesity, Free-Flap Reconstruction Should Be Considered, Suggests Study in Plastic and Reconstructive Surgery**

Arlington Heights, Ill. – For obese women undergoing breast reconstruction after surgery for breast cancer, reconstructions using implants have a higher failure rate, reports a study in the November issue of [Plastic and Reconstructive Surgery](#)®, the official medical journal of the [American Society of Plastic Surgeons](#) (ASPS).

Especially in patients with severe obesity, "free flaps" using the woman's own tissue may be a better choice than implant-based [breast reconstruction](#), suggests the new research by [ASPS Member Surgeon](#) Dr. Patrick B. Garvey and colleagues of The University of Texas MD Anderson Cancer Center, Houston.

### Higher Failure Rate with Implant Reconstruction in Obese Patients

The researchers analyzed the outcomes of reconstruction after breast cancer surgery in 700 obese patients—body mass index (BMI) 30 or higher. Of the total 990 reconstructions, 45 percent were done using implants. The remaining 55 percent were done with free flaps, using tissue obtained from the patient's abdomen.

Complications were compared for implant versus free flap reconstructions. The researchers also compared the outcomes of reconstructions performed immediately after breast cancer surgery to those of delayed reconstructions performed after a healing period. About 80 percent of the reconstructions were immediate; implants were more frequently used than flaps for these.

Dr. Garvey and colleagues suspected that complications would be more common with implants in obese patients. However, the overall complication rate was somewhat lower for implant reconstructions: about 36 percent, compared to 42 percent when free flaps were used.

In contrast, severe complications leading to reconstruction failure were much more common with implants. The failure rate was nearly 16 percent when implants were used, compared to 1.5 percent with free flap reconstructions.

### In Severe Obesity, Timing Also Affects Failure Risk

Complications were similar overall for immediate versus delayed reconstructions. However, immediate reconstruction using implants was linked to a higher failure rate in women with more severe obesity. For women with class II obesity (BMI between 35 and 40) or class III obesity (BMI 40 or higher), one-fourth of immediate implant reconstructions failed (compared to none of the small number of delayed reconstructions in this group). The timing of reconstruction less affected failure risk in women with class I obesity—BMI between 30 and 35.

With adjustment for other factors, the overall complication rate was higher for women with more severe obesity—BMI 37 or higher. Other risk factors included older age, smoking and the presence of other medical illnesses.

Obesity is a known risk factor for complications and implant failure in women undergoing breast reconstruction. As obesity rates rise, plastic surgeons are performing more reconstructions in these challenging cases. Reconstruction failure is a serious complication. In addition to further surgery and delays until another reconstruction can be attempted, failed reconstruction is a "tremendous psychological setback" for the patient.

The new results suggest that, in obese patients, the risk of reconstruction failure is quite a bit higher when implants are used, particularly when implants are used for immediate reconstruction.

"We believe our data support flap reconstruction over implant reconstruction for class II and III obesity patients," Dr. Garvey and coauthors conclude. In addition, if an implant reconstruction is chosen, delayed reconstruction appears preferable to immediate reconstruction for severely obese women. Although obese patients represent a higher surgical risk group than normal patients, the authors do not suggest that obesity represents an absolute contraindication to breast reconstruction. Rather, the authors believe the evidence provided by their study will help surgeons in choosing the safest possible reconstructive strategy for these high-risk patients—especially when other risk factors are present as well.

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### **About ASPS**

The American Society of Plastic Surgeons (ASPS) is the world's largest organization of board-certified plastic surgeons. Representing more than 7,000 Member Surgeons, the Society is recognized as a leading authority and information source on aesthetic and reconstructive plastic surgery. ASPS comprises more than 94 percent of all board-certified plastic surgeons in the United States. Founded in 1931, the Society represents physicians certified by The American Board of Plastic Surgery or The Royal College of Physicians and Surgeons of Canada. ASPS advances quality care to plastic surgery patients by encouraging high standards of training, ethics, physician practice and research in plastic surgery. You can learn more and visit the American Society of Plastic Surgeons at [PlasticSurgery.org](http://PlasticSurgery.org) or [Facebook.com/PlasticSurgeryASPS](https://Facebook.com/PlasticSurgeryASPS) and [Twitter.com/ASPS\\_news](https://Twitter.com/ASPS_news).