A Use for that Unwanted Fat:
Fat Grafting for Breast Procedures Gains in Popularity

Fat grafting involves harvesting and transferring a patient’s fat from one area of the body to another. This is known as autologous fat grafting, because it is derived or transferred from the patient’s body. During the procedure, a surgeon will typically remove fat tissue from the thighs or belly by liposuction. The tissue is then processed and injected into the area of the body where enhancement or volume is desired.

The procedure has historically been performed as part of facial rejuvenation to fill facial wrinkles and augment the cheeks, lips and other areas requiring volume restoration. Plastic Surgeons have also used fat grafting for buttock enhancement, which was popularized with the “Brazilian Butt Lift” procedure.

Fat grafting to the breast provides the ability to shape and contour tissue through a minimally invasive approach. Thanks to advancements and refinement of fat harvesting and grafting techniques that have allowed the more effective processing of large volumes of fat, many plastic surgeons are using fat transfer for breast augmentation or reconstructive procedures. The technique is gaining in popularity among surgeons and patients alike because it offers a more “natural” way to enhance size and volume in the breasts by using the patient’s own tissue.

A recent survey by the American Society of Plastic Surgeons made it clear that plastic surgeons are actively performing autologous fat grafting. Seventy percent of all respondents reported having ever performed autologous fat grafting of the breast. Responding plastic surgeons most preferred to use fat grafting to the breast for reconstructive rather than for aesthetic applications (62 percent versus 28 percent). This is likely due to the prevalence of asymmetry and contour defects in patients undergoing reconstructive breast surgery, which can be mitigated with fat grafting.¹

Although the use of fat grafting for breast procedures is becoming more common, it remains a subject of debate in the medical community. This is based on the perceived notion that fat grafts could eventually calcify and form scar tissue and that these changes may lead to difficulty with mammography.¹ Before undergoing a breast procedure, patients should discuss the benefits and risks with their surgeon.

Breast Procedures:

Breast Reconstruction
Breast reconstruction is achieved through several plastic surgery techniques that attempt to restore a breast to near normal shape, appearance and size following mastectomy. According to the survey by the
American Society of Plastic Surgeons, the most common reason for using fat grafting to the breast was as an adjunctive therapy to implant or flap surgery. Breast reconstruction with flap surgery involves taking a section of tissue from one area of the patient’s body and relocating it to the chest to create a new breast mound. It can be a complex procedure.

While breast implants and tissue expanders are typically used to reconstruct the breast, physicians may combine this with a fat grafting technique to achieve more significant volumes. In addition, some physicians are using fat grafting techniques to reconstruct the breast without the use of an implant. To do this, the surgeon would use tissue expanders to fill the breast cavity with the patient’s own tissue.

Breast Augmentation
Many women do not seek breast augmentation surgery because they are uncomfortable with the idea of having foreign implant materials in their bodies. For these patients, a surgeon may use fat transfer techniques to enhance and increase the size of a patient’s breast without the use of an implant. This approach is known as “natural breast augmentation” because it uses the patient’s own tissue. The procedure is typically done for patients that are looking to increase their breast size by about one half cup size to a full cup size.

According to the survey, the most common applications among plastic surgeons for using fat grafting to the breast for aesthetic applications were as an adjunct to implant augmentation to disguise border or improve shape, as an adjunct to mastopexy (commonly known as breast lift surgery), and to correct congenital deformities (e.g., tuberous breast).

New Device Designed To Improve Fat Transfer Techniques

The REVOLVE™ System
Recent technology advancements have allowed surgeons to perform high-volume fat grafting procedures faster and with more reliable results. The REVOLVE™ System from LifeCell™ is a single use, sterile, disposable device intended for processing, filtering, and transferring of the patient’s own fat tissue. It offers surgeons a simple, closed system that controls critical variables in fat grafting. It enables high volume fat processing (up to 800 ml lipoaspirate) in less than 15 minutes, offering the potential to reduce OR procedure time.

About LifeCell Corporation
LifeCell Corporation, a leader in regenerative medicine, develops and markets innovative tissue repair products for the reconstructive, orthopedic and urogynecologic biosurgery markets. LifeCell products include: Strattice™ Reconstructive Tissue Matrix and AlloDerm® Regenerative Tissue Matrix, for plastic, reconstructive, and general surgical applications; Cymetra® Regenerative Tissue Matrix, a particulate form of AlloDerm® Tissue Matrix suitable for injection; Repliform® Regenerative Tissue Matrix, for urogynecologic surgical procedures; GraftJacket® and Conexa™ for orthopedic surgical procedures; and the SPY® Elite System for the visualization and evaluation of tissue perfusion.
For more information about LifeCell visit www.lifecell.com.


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**Fair Balance Statement:**

**Indications of Use**
REVOLVE™ is used for aspiration, harvesting, filtering, and transferring autologous adipose tissue for aesthetic body contouring. The system should be used with a legally marketed vacuum or aspirator apparatus as a source of suction. If harvested fat is to be re-implanted, the harvested fat is only to be used without any additional manipulation.

Intended for use in the following surgical specialties when the aspiration of soft-tissue is desired: plastic and reconstructive surgery, neurosurgery, gastrointestinal and affiliated organ surgery, urological surgery, general surgery, orthopedic surgery, gynecological surgery, thoracic surgery, and laparoscopic surgery.

**Contraindications**
Contraindications to Autologous Fat Transfer include the presence of any disease processes that adversely affect wound healing, and poor overall health status of the individual.

**Warnings**
1. This device will not, in and of itself, produce significant weight reduction.
2. This device should be used with extreme caution in patients with chronic medical conditions such as diabetes, heart, lung, or circulatory system disease or obesity.
3. The volume of blood loss and endogenous body fluid loss may adversely affect intra and/or postoperative hemodynamic stability and patient safety. The capability of providing adequate, timely replacement is essential for patient safety.

**Precautions**
1. This device is designed to remove localized deposits of excess fat through small incision and subsequently transfer the tissue back to the patient.
2. Use of this device is limited to those physicians who, by means of formal professional training or sanctioned continuing medical education (including supervised operative experience), have attained proficiency in suction lipoplasty and tissue transfer.
3. Results of this procedure will vary depending upon patient age, surgical site, and experience of the physician.
4. Results of this procedure may or may not be permanent.
5. The amount of fat removed should be limited to that necessary to achieve a desired cosmetic effect.

**Adverse Effects**
Some common adverse effects associated with Autologous Fat Transfer are asymmetry, over- and/or under-correction of the treatment site, tissue lumps, bleeding, and scarring.