

# Phenomenal

If someone were to tell you your fat could not only make you look up to 20 years younger, but also save your life, would you believe it?

According to local surgeons, it can — with fat stem cell transfers and fat banking.

The fat stem cell transfer — or fat grafting procedure — consists of harvesting or removing fat from one part of the body, purifying it and re-injecting it into the areas that need volume or rejuvenation.

The two most common uses for fat stem cell transfers are as natural and long-lasting alternatives to fillers and implants.

"Although the procedure has been around for many years, autologous fat grafting or fat injections are becoming a hot topic in plastic surgery," says Dr. Jennifer Geoghegan, M.D., of Oasis Plastic Surgery in Scottsdale. "Fat can be used to revise scars, fill in depressions, to volumize or rejuvenate the face or hands or to enhance body contours such as the buttocks or breasts."

## Breast augmentation and reconstruction

Both Geoghegan and Dr. James M. Nachbar, M.D., FACS, Scottsdale Plastic Surgery in Scottsdale, agree that the use of fat to correct defects from breast biopsies has gained popularity over the past year.

"Many of my most informed patients seem to be my breast reconstruction patients," Geoghegan says. "After doing research on their options, they commonly come in looking for fat injections as an option to potentially improve their lumpectomy scars or as an improvement to their current implant-based breast reconstruction."

Dr. Todd K. Malan, M.D., founder of the Innovative Cosmetic Surgery Center in Scottsdale, also uses fat-derived stem cells frequently at his practice for patients who have had lumpectomies or multiple biopsies or left with defects. But, he says the most common use for fat stem cells is for breast augmentations, a procedure for which he was the very first surgeon in the United States to perform.

The procedure is performed with needles, with no cutting into the breast, and takes about two hours. The fat, along with the stem cells, is injected throughout the breast. Patients are typically uncomfortable or sore from the liposuction for about three to five days, with possible bruising and very little swelling, according to Malan, and should subside within a couple of weeks.

"You can rebuild the breast, instead of implants," says Dr. Jeffrey J. Ptak, M.D., FACS, Aesthetic Surgery in Scottsdale. "It would probably take two or three sessions to build a reliably fuller breast to the same volume that you would get an implant."

Although it may take more time, the fat stem cell transfers are considered a much more natural alternative for breast augmenta-

## Fat stem cells can be used cosmetically, medically and as an anti-aging alternative

tions, and they're also long-lasting and less expensive in the long-run, compared to implants.

"With implants, you're looking at replacing them every 10 years, at least," Malan says. "A recent study done by one of the implant companies shows that 50 percent of patients will have their implant removed prior to 10 years because of complications or issues. So, you're talking about a procedure with fat that lasts forever."

Malan adds that if one were to average the potential complications, potential issues and the replacement costs, she would be looking at \$1,000 per year for the rest of her life, after the implants are put in.

## Stem cell facelifts

"Stem cell facelifts have been the most popular recently," Malan says. "And I think that the word is getting out now."

According to the American Society of Plastic Surgeons, facelifts help improve visible signs of aging in the face and neck, but the procedure does not stop the aging process. Fat transfers to the face, however, can reverse skin aging. Ptak says instead of stretching the skin outward, surgeons who incorporate fat transfers, also known as fat grafting, in their procedures are filling up the volume of fat in the face where there used to be volume, giving patients a youthful look. Ptak, more than a decade ago, was one of the first in the country to offer fat grafting in the country.

Facial aging is caused by a loss of volume, so injecting fat creates volume and rejuvenates the face, creating a natural, youthful, recharged appearance. Stem cells make the skin thicker; they regrow collagen, stimulate blood flow and eliminate age spots, and patients can look up to 20 years younger.

"Fat transfers have been used a lot now along with facelifts to improve the result of the facelift, Nachbar says. "As you age, the wrinkles and the sagging of the skin relates to loss of the fat in the face. As you get older, the fat drains out so it becomes more hollow. Injecting fat can help improve the shape of the face."

Stem cell transfers are a fraction of the cost and can last up to 10 years, if not longer, Ptak says. For instance, facelifts range from \$15,000 to \$20,000, while fat transfers can cost anywhere from \$4,000 to \$7,000, he adds. And the number of patients receiving this procedure at his practice have increased.

# Fat

"I think we've seen anywhere from a two- to five-fold increase in this procedure in the last four years at my practice," Ptak says. "There are very few of us doing it."

## Fat stem cell banking

Normally after liposuction, fat is discarded as medical waste. However, doctors suggest saving or banking your fat for future possible anti-aging or medical treatments — because the fat is rich in regenerative stem cells.

Ptak calls this bio-insurance: "You're essentially setting up another insurance policy for yourself to have these stem cells readily available," he says.

For those who do not opt for a fat transfer to the face or use it for a breast augmentation, patients can store it at a tissue bank. Just two exist in the U.S. — BioLife Cell Bank located in Dallas; and AdiCyte located in Tucson, the largest stem cell bank in the country. Last year, Dr. Ptak was appointed as a national board advisor for AdiCyte.

If you have a family history of cancer, multiple sclerosis or Alzheimer's disease, "You really should be considering having your fat removed and stem cells stored while you're young," Malan says. "Those stem cells will be able to do amazing repair work."

The younger the better, Ptak says. And it can be done anytime. "If you're going in for another procedure, and you're under anesthesia, you can have it done then," he adds. "It's easy."

The amount of fat removed for stem cell banking is 500cc's — about the size of a 16 oz. bottle of water. Malan has had patients come in to his practice specifically for the fat removal and fat stem cell banking.

"This really is the most exciting, medical breakthrough in any of our lifetimes," Malan says. "This really has the potential of completely altering disease where we could not only cure disease, but we could reverse the disease process so that you don't have to suffer from debilitating chronic conditions anymore. And, we can actually help repair chronic genetic diseases."

Rebuilding breasts, reversing aging, treating heart disease and diabetes — fat transfer can be used just about anywhere in the body, from head to toe, with stem cell therapy able to treat a range of conditions.

"Your fat can save your life, especially if you happen to develop a disease that they have a proven therapy with stem cells now or in the future," Ptak says. "The old model of drugs and surgery being the old way to fight disease is really going out the window." **SL**

To learn more about the experts in this story, turn to page 34.

