THE NEW YORK SURGEON WHO INJECTS WOMEN WITH THEIR OWN FAT (THEY ASK HIM TO)

Just when we got used to injectable fillers for the face, along comes a remarkable technique to plump up the body – in all the right places

REPORT Hermione Hoby **PHOTOGRAPH** Mike McGregor

It is the last place in the world you'd expect to hear someone praising fat. But, in a chic Manhattan plastic-surgery clinic populated by impossibly lean women, Dr Sydney Coleman is doing just that, while explaining a new technique with radical implications for cosmetic and reconstructive work.

LipoStructure, or lipomodelling as it's also known, involves taking a patient's own body fat and reinjecting it to sculpt, fill, correct and enhance other areas. We may have got used to the idea of injectable fillers for the face; now it's body recontouring that's the growth industry. And, for more and more surgeons, fat is the tool of choice. In the right hands, the results are extraordinary: it can fill scars and hollows, smooth creases, retouch cellulite dimples, as well as plump and sculpt breasts and bottoms.

One of the most popular procedures Dr Coleman offers is taking fat from the abdomen and reinjecting it into the breasts, which is, as one surgeon puts it, "the answer to a maiden's prayer" – weight loss, waist definition and breast enhancement all in one procedure.

But aren't people squeamish about using their own fat? "They love it," Dr Coleman says, with a big smile. "The abdomen and love handles are always my first choice because that makes the woman thinner." Fat can, of course, be taken from anywhere it's not wanted on the body and, as Dr Coleman says, "There's no blood and no cuts. There are just these little puncture sites."

Coleman first started investigating fat-grafting in the late Eighties when, he explains, "I'd go to a cocktail party and women would pull me aside and complain about their thighs and abdomens after liposuction. So that was the original motivation – to help these women who were coming to me saying, 'What am I supposed to do now?'"

Back when liposuction was a new procedure, many surgeons would remove too much fat from thighs, leaving them hollowed and irregular, he says. "I visited people in California and Virginia and spoke to people in France who were doing fat-grafting for the correction of liposuction deformities, but they'd never had good experiences. So I looked at what they were doing and tried to do it a little differently. I tried to bring it down to more basic principles."

The principles may be basic, but the work is also extremely precise. Coleman's technique involves harvesting fat very gently through low-vacuum cannulas before using a centrifuge to separate the oil and water. (Traditional liposuction techniques, which involve exerting a lot of negative pressure, can harm the fat and increase the chances of it dying once it's been grafted, meaning it forms hard lumps.) The treated fat is then reinjected, one droplet at a time, in a lattice formation. It's a delicate and painstaking process, with no room for error.

The surgery's "two-for-one" aspect is not its only appeal. Unlike most conventional breast augmentation surgery, there is no scarring. There are also none of the aesthetic and practical problems that come with implants, and fat-grafting affords the surgeon more control – and room for artistry. "With silicone, you've got a bag and you make a hole and stuff it in the hole," says Dr Coleman. "It's a prefabricated volume. But with fat-grafting, you have to completely visualise everything in three dimensions. You can really shape the breast and improve projection and I'm able to go anywhere – to make cleavage, to feather into the side." Some of the most impressive before-and-after pictures he shows involve subtle but radical changes to breast shape: an obvious implant, for example, is edged with fat and instantly becomes natural-looking.

Linda Francipane, a 44-year-old hairdresser from Queens, was an early patient of Dr Coleman's and underwent breast augmentation surgery having spent "many, many months" researching her options. This included speaking to a lot of strippers about their implants. "I'd say 40 to 50 per cent had some kind of issue with them – whether they leaked, or the look, or the feel," she says.

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She was nonetheless determined to do something about her flat chest. "You'd be out clubbing," she says, "and all the hot girls had tremendous boobs and I really had nothing, like nothing. This was the time when everybody was getting implants and I was like a little boy. I just wanted to get in the game."

When a friend told her about Dr Coleman's technique, "It seemed like a fabulous alternative to putting something foreign in my body." She went from "below an A" to a 36C and says, "The way he did them, you can't tell. It's terrific. It changed my life." She says she's still receiving compliments.

Tal, a 36-year-old from Portland, Oregon, is another of Dr Coleman's patients. She had implants when she was 19 but was so dissatisfied, she had them removed after just nine months. "I couldn't breathe properly. It was just a very foreign feeling," she explains.

As soon as she heard about breast augmentation by fat-grafting, she booked a consultation with Dr Coleman. "I thought nothing could be worse than what I had, so, even if he messed up, it would still be better. I had nerve damage from the breast implants, and stretch marks, and some scarring from under the nipple where it had been cut open. The tissue gets so stretched that I was actually flatter after breast implants."

She wanted "breasts that were heavier at the bottom – a kind of Seventies look. I wasn't comfortable being showy – my identity is really that of a flat-chested girl. It's hard to create a natural-looking shape; I don't know how he does it, but it's just perfect – exactly what I wanted. He's an artist. I don't know if I'd trust anyone else."

Tal also adds, "I don't even wear a bra," before laughing and reflecting, "I probably should, since I made such a large investment." Because, unsurprisingly, this sort of procedure is in a whole other price bracket to breast implants, which can now cost as little as $2,000 (£1,250).

"It's a really expensive surgery," Tal admits. "I don't remember the exact figure – I've probably suppressed it, but I think it came out at just under $40,000 [£25,000]."

Fat-grafting can also be used on a more modest scale. Dr Arthur Handal, a surgeon based in Florida, uses it with almost every facelift he performs. "Before, when patients had facelifts, they looked much better in the first few months. But when all the swelling went away, they didn't look as good," he says. "Now, with the fat, you're maintaining that fullness of the face, that rich look." Fat, he says, "is one of the best tools we have for rejuvenation surgery".

It's also one of the best tools for reconstructive surgery. Dr Fazel Fatah, recently appointed president of the British Association of Aesthetic Plastic Surgeons, estimates that around 60 per cent of his breast reconstruction surgery for the NHS now involves fat-grafting.

"If you can use the patient's own fat instead of using an implant, that is infinitely superior because, done properly, it has no long-term implications," he says. But, he stresses, "It has to be done properly. If you plan to graft fat to the breast, you have to have knowledge of breast disease, to have training in breast surgery, and you have to be working within a set-up where you have the full back-up of breast oncology services."

It's not surprising that breast augmentation using fat is experiencing such a surge in popularity. However, Dr Fatah is concerned that its immediate appeal may blind patients or surgeons to the risks.

"I'm worried because I've already seen websites with adverts that say, 'Two for the ➡

price of one!' and, 'Take excess fat and have it injected into your breast!' As if you just take it so lightly. This is very, very serious surgery."

One of Dr Fatah's patients is Sam, a 40-year-old single mother from Walsall, who had a double mastectomy two years ago after being diagnosed with breast cancer.

When we speak, she's just had a second operation – Dr Fatah is reconstructing her breasts incrementally using fat taken from her stomach. The first time she came round, she was, she admits, "a little disappointed, because I'd expected a bit too much". But then, "When all the bruising had settled down, I could see the difference. It was like they'd laid a platform to build on."

And this time round, she says, "It's still not enough to wear a bra, but you can see what they're doing and it's amazing, absolutely amazing." Sam chose this method of reconstruction rather than implants because, as she puts it, "I'm too much of a coward, so I decided to go for the simplest method."

The technique does, of course, have other advantages. "When I had my children, my breasts lost a lot of their 'oomph'," Sam says. "And I always had quite a protruding stomach – my mum used to joke that I looked like a pot-bellied pig. Now she reminds me that I always used to say, 'I wish somebody could just take some of this from here and squirt it into my boobs and bump my boobs back up.' My friends are very jealous, but I'm like, 'Look at the rubbish I've had to go through.'"

Sam's only frustration with the process is how gradual it is: the interval between each surgery is about five months, so it will take some time before she's the C cup she wants to be. "I hope," she says, "that this time next Christmas I'll be wearing a slinky new frock and be able to give everyone a flash of my new cleavage."

Ironically, in Sam's case, the main controversy surrounding breast augmentation by fat transfer is to do with the detection of breast cancer. Fat can die easily and, when it does, it forms calcified lumps that can be confusing on a mammogram. In 1987, the American Society of Plastic Surgery recommended that fat should not be transferred to the breast for this reason.

It's Dr Coleman's opinion that the big silicone implant manufacturers somehow influenced this decision. In any case, it means that for a long time there was "complete silence" on the issue.

"In the years between 1987 and 1995, no one talked about it," says Dr Coleman. "No one did research." Then, in 2007, he persuaded the American Society of Plastic Surgeons to review the 1987 recommendation. The committee produced a report stating that while fat-grafting "could interfere with breast cancer detection... no evidence was found that strongly suggests this interference". Somewhat ambivalently, therefore, they endorsed the technique.

There are two further areas of concern surrounding fat-grafting for breast or buttock augmentation. One, reiterated by almost every patient and doctor who speaks about it, concerns the expertise and technical skill of the surgeon.

In the US, anyone qualified to practise medicine can legally perform plastic surgery, meaning, as Dr Coleman says, "a psychiatrist basically has the same legal rights as I do to operate". In the UK, meanwhile, Dr Fatah is involved in the final stages of drawing up guidelines on the topic and, in Birmingham, he has started the "first workshops on fat-grafting, for surgeons to come to see experts using the technique".

The other concern is simply over a lack of sufficient scientific research. Dr Phil Haeck, a surgeon from Seattle and president of the American Society of Plastic Surgeons, sounds a clear note of caution: "Right now, the industry is out in front of the science. And both of those are out in front of the regulations. The regulation of fat-grafting is the next frontier, but that's not even getting started yet. So we're dealing with an unregulated group of procedures that have some science behind them, but there are certainly some things happening now that are science fiction and don't have scientific basis yet."

One of these "science fictions", as he puts it, is the issue of stem cells. Dr Jeffrey Hartog, who does fat-grafting at his Florida practice, says, "What's so exciting and eye-opening about this is that we've actually been injecting stem cells all the time – any time we've been doing fat-grafting we've also been injecting stem cells." These are the body's regenerative cells and fat is rich in them. Many surgeons claim that injecting fat therefore improves the tone of the skin, reducing pore size, improving elasticity, healing irradiated skin and even completely healing old scars. The images that Dr Coleman presents certainly seem to show this: in one "after" photograph, a long scar down a woman's nose has disappeared entirely. Dr Hartog uses a technology that claims to separate fat cells from stem cells. The stem cells "can then be added back into regular fat to create what we call a supercharged graft, and that, I think, is going to break things wide open".

Dr Haeck, though, is sceptical. "After studying this at length, the ability to say we've definitely taken stem cells and activated stem cells in your face is quite a reach," he says. "My partners are doing fat-grafting and I'm waiting to find out what the exact science is. There are as many opinions out there as there are plastic surgeons."

His words are echoed almost precisely by Dr Jean Loftus, who makes regular television appearances in the US to advise on plastic surgery. Like Dr Haeck, Dr Loftus has chosen not to do liposculpting this way at her own practice.

"The jury is still out and that is why there are so many opinions on this," she says. "There aren't a lot of physicians who offer it. I'd say it's still a minority of board-certified plastic surgeons who choose to do it – and I think most of us are still saying it's not a great procedure."

Women like Tal, Linda and Sam, though, would disagree. "I know that there are many people who are in the same position I was and don't know about the surgery," says Tal. "If I had known about it five years ago, it would have saved a lot of anguish. I feel amazing. And nobody would ever suspect they're not real – because they are, they're totally real." ■

HOW TO GET THE NEW NEW BODY

- **Miami thong lift** So called because the scar is hidden in the "thong area" (ie, between the buttock cheeks). The procedure can lift a droopy bottom.
- **Brazilian tummy tuck** A combination of liposuction and abdominoplasty that flattens the abdomen by removing excess skin and fat and tightening the muscles, this procedure is said to result in a flatter stomach than the traditional tummy tuck.
- **Muffin-top liposuction** This surgery employs gentle liposuction to remove just the uppermost layer of fat at the waist, sculpting the area rather than removing a large volume.
- **Ultrasonic fat reduction** Ultrasound can be used to break up fatty deposits and tighten the skin, and is most effective on the abdomen, flanks and thighs. Techniques include an hour-long procedure that requires no downtime.
- **Heart-lip surgery** Trademarked by British cosmetic and reconstructive dental surgeon Dr Bob Khanna, this surgery strives to recreate the heart-shaped pout of the likes of Angelina Jolie. Using Restylane, a hyaluronic acid-based dermal filler, it recreates the discernible cleft in the mid-line of the lower lip that results in heart-shaped lips.
- **Cankle liposuction** Usually performed as part of leg resculpting surgery for "tree-trunk" legs, liposuction can now reduce "cankles", that is, ankles that are as wide as calves. Up to three and a half pints of fat are suctioned out from the calves, ankles and backs of the knees using a very small cannula, a small amount being left behind to cushion the skin and prevent wrinkling.