

the fallacies of
fat injections

Kevin Tan talks to Singaporean plastic surgeon Dr. Woffles Wu about the potential pitfalls and fallacies of autologous facial fat injections.

“I’m sorry, I can’t help you,” said the plastic surgeon while shaking his head. John* nodded tearfully as he was led out the door.

John, in his thirties, had everything going for him. He was successful. He had his own business. He was relatively handsome. His only flaw was his vanity! Seeing the first signs of aging, he sought a solution short of surgery that offered results with minimal downtime. He was recommended the use of fat injections by a doctor. Fat was extracted from his tummy and injected into his cheeks and around his eyes to fill in lines and add volume to his face. It backfired disastrously. Because the fat was from his tummy, it still ‘acted’ like fat from his tummy. Except that fat was now on his face. Whenever he gained weight, his face did too. Even worse, the gain wasn’t symmetrical, leading to a lopsided, misshapen look.

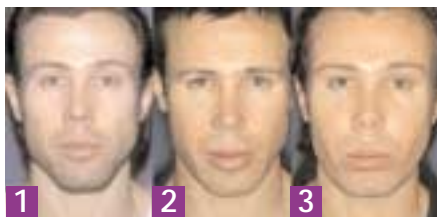
Today, his resemblance is somewhat akin to a deformed human chipmunk. Huge lumps of fat sag from his cheeks and his eyes are tiny slits amidst islands of flab. The procedure is irreversible. He’s sought help from dozens of plastic surgeons. None were able to help.

John is but one of a growing number of patients who have undergone autologous facial fat injections and are now paying the price. Forever.

Fat injections, or more formally, autologous (meaning from your own body) fat injections are a surgical procedure that involves removing fat from the thighs or abdomen of the patient via liposuction, purifying it and then re-injecting it into the body. This is primarily done on the face though other areas such as the breasts also see use. As fillers go, fat is excellent when a large amount of filler is required, such as that in certain reconstructive surgery cases or when the face has lost a large amount of volume due to age or disease. Another advantage is that it has no risk of rejection by the body. Because it is the patient’s own fat, it’s practically free barring the cost to suck it out. Fat injections are often conducted when a patient undergoes liposuction, killing two birds with one stone. Unfortunately, that’s only the tip of the iceberg.

Because of its purportedly safe nature, all manner of people are offering fat injections. Many of those who do so, aren’t qualified to conduct the procedure in the first place. “Now it has come to the point that even dermatologists, general practitioners, even paediatricians – doctors that are not even in the aesthetic field – are jumping onto the bandwagon and using the tools of fat injections and liposuction and operating indiscriminately,” says renowned Singaporean plastic surgeon Dr. Woffles Wu.

“The danger I see as a plastic surgeon



Fat was taken from the patient’s back and tummy and injected around the eyes, jawline, chin, the temples, the midface, the naso-labial line and the upper and lower lips

- 1) Before the procedure
- 2) Six months after the procedure showing good volume correction
- 3) Two years after the procedure showing uncontrolled growth of the fat.

today is that fat injections are being touted as the panacea, the answer for all volume solutions in the face. This is because of the seductive reasoning behind it, that it cannot be rejected by the body and this recent idea that if you transplant fat cells you also transplant stem cells and that these stem cells cause a degree of rejuvenation to the surrounding skin and the tendons as well,” says Dr. Wu.

“The irony is that GPs who are just coming into the aesthetic game are calling it the next best thing to sliced bread and injecting it into patients. This isn’t just a local phenomenon. It is being multiplied and replicated across Asia and the world over, and we as plastic surgeons, are seeing more and more complications from this procedure,” says Dr. Wu.

FAT CHANCE – THE DANGER OF FAT INJECTIONS

“I have stopped using fat injections for many years,” says Dr. Wu. “I prefer to use synthetic fillers and I am quite scared of fat injections now. I have had 15 years of experience with fat injections and there is a reason I don’t do it anymore. Certainly not the way we were taught back then.”

“Fat injections are not as safe and simple as they seem,” adds Dr. Wu. “There are many, many dangers that are not talked about, that are swept under the carpet and the number of unhappy patients from fat injections is high and growing by the day,” states Dr. Wu. Many are uninformed of the potential risks and complications and fed lines about how easy and safe they are to use – most of which are fallacies.

The first major fallacy of fat injections is that they are easy to remove. On the contrary, fat injections are anything but. “The fact is, you can’t suck it out – it’s not easy. I think it’s next to impossible,” says

Dr. Wu.

It takes several days to bond to surrounding tissue after it has been implanted, and once it happens, it’s irreversible.

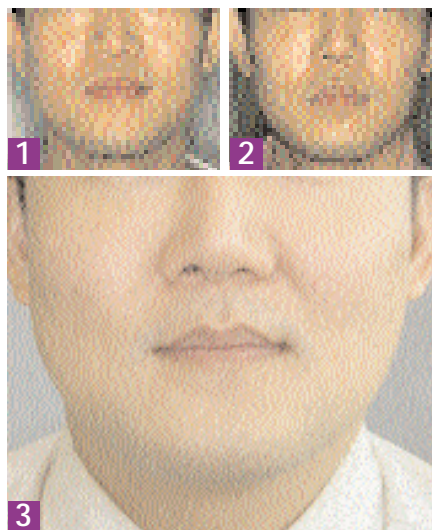
“The fat is already incorporated into the tissue and it’s just too tough to remove.” He adds that even a skilled



Dr. Woffles Wu says that many are uninformed of the potential risks and complications and are fed lines about how easy and safe fat injections are to use.

plastic surgeon would likely end up with aesthetic problems when attempting to remove it from the face – problems such as pits, craters and contour irregularities. To add insult to injury, an unskilled surgeon could cause problems elsewhere by leaving craters in the donor site when removing the fat for implantation, leaving someone’s thighs or tummy looking like a bungled archaeological dig. He sums it up, “They’re screwed for life – it’s not a joke,” says Dr. Wu.

Another potential complication that’s glossed over is that the results are unpredictable. Once the fat is placed in the recipient site, the fat can either dissolve and be reabsorbed by the body or it can take, which means the fat graft survives. Depending on the skill of the surgeon, the graft survival rate can run anywhere from 70 percent to 90 percent. This implanted



Fat was extracted from the patient’s stomach and injected to the midface region, the supra-orbital ridge, the nasolabial folds, the jawline and under the eyes.

- 1) Before the procedure
- 2) Six months after
- 3) Seven years after the procedure showing excessive growth of fat as it retains the characteristics of the area it was harvested from, ie. the stomach.

**"FAT INJECTIONS ARE NOT AS SAFE AND SIMPLE AS THEY SEEM. THERE ARE MANY DANGERS THAT ARE NOT TALKED ABOUT, AND THE NUMBER OF UNHAPPY PATIENTS IS HIGH AND GROWING BY THE DAY."
– DR. WOFFLES WU, SINGAPOREAN PLASTIC SURGEON**

fat is unpredictable and could stay static or even grow in volume. You can put fat into the face of a patient – one side can disappear and the other side could grow which could make the face totally asymmetrical which forces the surgeon to do a second procedure to balance things up. "When the face starts growing uncontrollably, this becomes a real problem," says Dr. Wu. He explains that fat cells, regardless of where they are grafted to, still retain their original 'programming'.

"Fat retains the characteristics of its donor site. Most fat comes from the tummy and after a patient has had a fat injection procedure, there is a tendency that when the patient puts on weight, their face gains weight as well," says Dr. Wu. Some patients, like the aforementioned John, end up facially resembling pigs because of the unpredictable nature of fat re-growth.

"It's a horrible consequence. If you've seen a patient whose face has grown out of proportion, you're going to be scared," says Dr. Wu. This problem is exacerbated by untrained surgeons who intentionally overfill the target areas with more fat than necessary to 'compensate' for the percentage of fat that may not graft itself and survive. "You should never ever overfill fat," says Dr. Wu, "That's when you start getting problems and horror of horrors, it's something that doesn't go away."

Dr. Wu adds that fat injected around the eyes also has a tendency to calcify and form hard, ugly, uncomfortable rock-like nodules that feel and resemble pebbles. A surgeon has to remove them and after doing so, more may crop up, leading to more uncomfortable surgeries.

"It's hard to generalise, but more than 50 percent of my fat injection patients get some sort of problem – to me it's a very unacceptably high figure," says Dr. Wu. For something that's supposedly rejection and fuss free, the potential complications are equal to, if not more, than other fillers.

FAT INJECTIONS – BOON OR BANE?

Are facial fat injections even worth doing in the first place notwithstanding the potential problems they could cause? In certain cases, yes. "I would say that even in the hands of a plastic surgeon, fat injections must be done judiciously. It's not a technique that everybody can do well, and it doesn't mean if you're a plastic surgeon you can do it well if you haven't learnt the technique," says Dr. Wu.

Many problems stem from the old technique, which is still in wide use. "The old technique, which was still in use three to four years ago, used cannulas whereby large blobs of fat were injected into the face. When it is used in the cheeks, it does-

Fillers and Fat Injections

Those encountering the first signs of aging or facial imperfections like scars, acne scars and crow's feet around the eyes, are prescribed dermal fillers as an option short of a facelift. Fillers are broadly classified based on how long they remain in the body (temporary, lasting a few months to permanent) and whether they are chemically synthesised or derived from animal or other living sources. As implied, fillers are an injectable compound used to add volume to soft tissues. They're effective at filling shallow depressions like crow's feet, naso-labial lines (around the mouth and nose), wrinkles around the face as well as adding volume to sallow cheeks and to plump up lips. Fillers are also used for the back of the hands.

While dermal fillers are safe when used in the right hands, their use has a number of potential complications. How a person's body takes to a filler may, at times, be unpredictable. There is the possibility of an allergic reaction and rejection by the body. Another issue is the potential financial cost of using fillers. Depending on the brand, type and the amount required, a patient could incur costs that exceed that of a full facelift procedure because of the amount of filler needed.



Disfigurement after undergoing an aesthetic procedure can be psychologically traumatizing.

n't make much of a difference, but around the eyes, there can be a lot of unevenness and in order to implant the fat, you have to make multiple passes into the surrounding muscle which leads to a lot of swelling. This leads to significant downtime," says Dr. Wu.

IMPROVED RESULTS: THE MICRO DROPLET TECHNIQUE

Recently, Dr. Wu began using fat injections once more via a new technique called the Micro Droplet Technique. In the new technique, Dr. Wu uses very small cannulas to harvest the fat and then uses very fine syringes to implant the fat in a series of micro droplets in the target areas instead of one huge wad. "Putting in very microscopic quantities seems to avoid the problem of overgrowth," says Dr. Wu.

"It's a technique I still use in the right patient and the patient must be fully aware of all potential complications. We do it because there are no other better or safer alternatives and there is a justified reason to do so," says Dr. Wu. "I will still use fat injections in the correct patients – patients who are very facially depleted in cases of hemifacial (half face) atrophy where these people are born with no fat on one side of the face as well as people who have lost a lot of weight and who may need 10 to 15 vials of filler in which case using other fillers may be too expensive."

Dr. Wu emphasises, "I want to warn

patients that they should not think that it is such an easy technique that anyone can do it and anyone can get uniform results." He elaborates, "In my hands, 50 percent of the patients who've had fat injections have had some problems and it's just too high. I don't think I'm a lousy surgeon. I think I'm a very decent surgeon and if I'm using a technique that gives such a high rate of problems then I have to analyse who, what, why and when I should be using it."

In fact, Dr. Woffles Wu is recognised as one of the world's 19 foremost aesthetic surgeons in the book *Aesthetic Surgery* by Taschen Books, as well as being a pioneer in facial rejuvenation using Botox® and threads for his Woffles lift.

Dr. Wu says, "Fat injections are a dangerous technique in the hands of the untrained or those lacking sound aesthetic judgement, and at the same time, a very useful technique in the hands of a trained plastic surgeon. The trouble is that the untrained physician, the non-cosmetic surgeons who are using the technique, making mistakes and overselling the technique without making it known to the patient the possible complications involved – this is a dangerous thing for the public. If a surgeon is going to do fat injections, they must not oversell the technique and they must inform their patients of the potential complications." With something so potentially life changing, it's definitely a very big deal.

* Not his real name