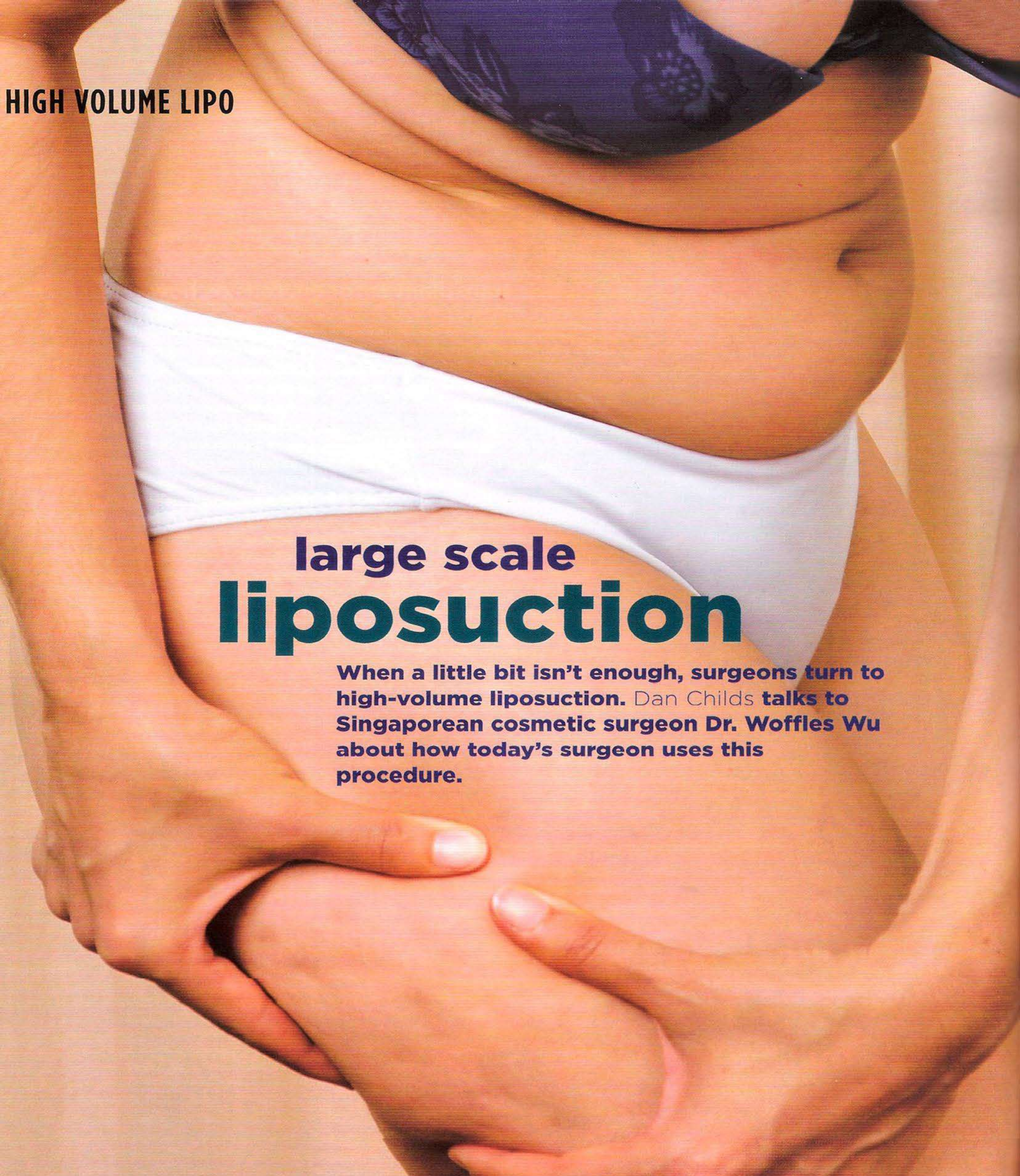

large scale liposuction

When a little bit isn't enough, surgeons turn to high-volume liposuction. Dan Childs **talks to Singaporean cosmetic surgeon Dr. Woffles Wu about how today's surgeon uses this procedure.**

For some, it's a scenario that is all too familiar: you step out of your morning shower and stare at yourself in the mirror, only to have an image of love handles, saddlebags and a pudgy tummy reflected back at you.

Perhaps these are simply the stubborn holdouts of fat that refuse to dissolve even after hours of exercise. More likely, they are the unfortunate consequences of a lifestyle devoid of activity – and heavy on the Häagen Dazs.

Regardless of how these fat deposits got there, you might be thinking that liposuction is the answer to getting rid of them. After all, liposuction is considered in surgical circles to be the gold standard when it comes to removing pockets of stubborn fat. But how does this procedure fare when a patient wants to remove "buckets" rather than "pockets"?

This, notes Singaporean cosmetic surgeon Dr. Woffles Wu, is where high-volume liposuction comes in – a procedure in which surgeons aim to suck out a total volume of fat in excess of five litres.

If this surgery sounds like a tall order, that's because it is. However, Dr. Wu notes that advances made in equipment and technique over the past several decades have also made high-volume liposuction safer and more effective than ever before.

WHY GO HIGH VOLUME?

In an age where nearly everything we eat is available in large, extra large and "grande" serving sizes, it should come as little surprise that today's cosmetic surgeon can offer super-sized liposuction. However, five litres seems like a heck of a lot of fat to lose in one trip to the operating theatre. So why do we need high-volume liposuction in the first place?

"The answer is that many of the patients who come in for body sculpting do, in fact, need fat loss in excess of five litres," Dr. Wu says. "If I have, for example, a woman who comes in with very heavy thighs, we'll probably be removing between three and a half and four litres of fat from the thighs alone."

Dr. Woffles Wu says that almost all patients who want liposuction have a complex of problems.

Add to this fact that many of the patients who opt for massive liposuction will also want fat taken out of areas of their bodies other than their thighs – namely, their abdomens, necks and buttocks.

"Incidentally, almost all of the patients that I do liposuction on have a complex of problems in areas all over the body," he continues. "We're talking the arms, back, flanks, hips, tummy, upper and lower abdomen, inner and outer thighs, and also the backs of their thighs. If a surgeon were to take just 500 millilitres out of each of these areas, that's already added up to five litres, more or less."

NEW TECHNIQUES, IMPROVED RESULTS

In many ways, the basic technique involved in liposuction is the same as it was since the procedure was first devised in the mid-1970s. In short, the surgeon will first locate the area of the body to be treated and mark a site for insertion of a cannula – basically a large, hollow needle with a blunt tip that is inserted into the fatty deposits in order to suck out the fat. Since a typical cannula is only about the size of a soda straw, the hole that it requires is normally less than a quarter of an inch in diameter.

A large amount of tumescent solution, which consists of very dilute local anaesthetic and saline, is then injected into the area. The straw-sized cannula vacuums out a relatively bloodless mixture of fat and fluid.

Over the past decade alone, liposuction has benefited from several new refinements. Today, a number of new techniques – among them the tumescent technique and the super-wet technique – help many plastic and cosmetic surgeons to provide selected patients with more precise results and quicker recovery times.

Dr. Wu notes that even liposuction procedures that remove five or more litres of fat can be performed much more efficiently using some of these new techniques. The result is that liposuction is also a much quicker prospect than it once was.

"We can do a fairly quick liposuction," he says. "Typically, we can almost suck out a litre in 10 minutes. So surgeons can do a five-litre liposuction operation in about two hours altogether."

Why the rush? Well, the quicker a liposuction operation is, the less time that a patient must spend under general anaesthetic – and the lower the chances of complications related to anaesthesia.

THE ART OF HIGH-VOLUME LIPOSCULPTURE

Many surgeons would agree that sticking to the basics when it comes to liposuction is a wise course of action. However, it is important to note that there have been numerous advances in technique since the procedure was first devised, thus refining an art known as liposculpture.

"Liposculpture really means not just getting rid of the fat, but also performing the liposuction in a way that creates shrinkage of the skin envelope," Dr. Wu says. "In essence, it's liposuction done in a very controlled fashion so the patient is left with a nice contour."

At play are two layers of subcutaneous fat: deep and superficial. In short, the art of liposculpture lies in which layer the surgeon removes the fat from, and how much is removed from the different layers.

"The whole idea of any kind of liposuction is to make sure that the skin does retract," Dr. Wu says. "We know that if we just remove the fat, we can end up with extra skin and a contour that is not pleasing. If you suck out only the deep layer, the skin will not retract. But if you suck just underneath the skin, the skin will elicit fibrosis, and that in turn causes the skin to contract on itself."

In other words, sucking a controlled amount of fat shallow to the skin causes the skin to produce extra collagen, much like it would during scar formation. This collagen formation leads to skin retraction, which in turn means a tighter, smoother result – a big plus for any patient who wants to avoid saggy folds of extra skin.

"I have some patients who have a saggy abdomen who would traditionally be considered candidates for a tummy tuck," Dr. Wu notes. "But if you do the liposuction properly, you can almost get results like those of a tummy tuck."

Whether or not a patient will require a surgical tuck or two following massive liposuction also depends much on skin elasticity and exactly how much fat is removed from a particular area. However, strategic liposuction can often determine the extensiveness of additional operations. As an added bonus, a surgeon conducting a liposculpture operation can also re-inject fat into other areas of the body, thus creating an overall pleasing body contour.

"Sometimes what we do is take fat out of other areas of the body and put it into the buttocks," Dr. Wu notes. "In this way, you can make a protruding, rounder mound rather than a wider, flatter mound."

THE RESULTS OF HIGH-VOLUME LIPO

Strictly speaking, liposuction is not so much a weight-loss procedure. Hence, a patient who hopes to emerge from the operating theatre with a drastically reduced weight will probably be disappointed. However, every successful liposuction procedure results in the patient enjoying a more pleasant body contour, as well as lost inches and an easier time fitting nicely into clothes.

It is important to keep in mind, however, that liposuction is a major surgical procedure. Side effects are significant and unavoidable, particularly where high-volume liposuction is concerned.

"When you are dealing with high volume liposuction, you will always have significant downtime, Dr. Wu says. "I always tell the patient that it's going to be a day surgery and that they are going to go home on the same day. But in the morning when they wake up, they are going to feel as if a bus has run over them. It feels just like if someone has not been exercising and then does 120 sit-ups."

In the days following the procedure, the patient will have swelling and bruising, some of which will migrate down to their feet and lower legs.

"Patients should expect bruising for a week to 10 days," Dr. Wu says. "We always see a slight swelling for the first two to three weeks. The skin only starts retracting after three months, and you will get even better results after six months. The best results actually come one and a half to three years after surgery."

Complications are less common if the liposuction procedure is properly performed. However, because the potential for complications exists with any surgery, it is important for a patient to talk with his or her doctor about all possible problems before surgery. Potential complications include deep-vein thrombosis, pulmonary embolism, fat embolism, skin necrosis, infection and asymmetry.

Patients must also keep in mind that they will most likely be placed under general anaesthetic for the procedure. This, too, entails certain risks that must be considered before going through with such an operation.

Splitting the entire job into two or more sessions can reduce some of the risks of liposuction. "In some patients, five to six litres isn't enough, and they have to be rescheduled for a second session," Dr. Wu notes. "Also, if somebody wants to be up and about more quickly, we can split their liposuction into two or three sessions."

One thing patients seldom need to worry about from a well-performed liposuction procedure is scarring. Because the incision needed to insert a cannula is relatively short, the scars from liposuction are small and strategically placed to be hidden from view. There is also very little risk of hurting a vital organ.

And now for a not-so-hidden benefit: after liposuction, body fat can redistribute to other portions of the body such as the breasts. So if a woman undergoes liposuction, she may find that she goes up a half cup or cup size in the months following the procedure.

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THE BOTTOM LINE

Like many other cosmetic surgery procedures, liposuction tends to get more costly as it gets more extensive. Thus, the cost of high-volume liposuction hovers in the high range when it comes to fat-removing procedures.

"If it's just thighs and buttocks and if the tummy, flanks and back are included "It can go even higher if the case is more complex, so we really do assess each patient individually."

It's a significant investment for most. And in order to preserve the effectiveness of this investment, Dr. Wu says that patients must adopt better eating habits, get plenty of exercise, and adhere to a healthier lifestyle – a strategy that might have even precluded their liposuction procedures in the first place.

But perhaps it is in this way that liposuction becomes more than just a stick-it-in and suck-it-out procedure. After all, one might view a high-volume liposuction as a second chance at seeing a trimmer, sexier physique when they look in the mirror. Maintaining this new body image could well be enough to kick-start a new, healthier lifestyle – an impressive surgical result. CS&B

IS IT SAFE TO SUCK?

For many patients, the question of safety is the first to escape their lips when confronted with high-volume liposuction. After all, liposuction does involve the removal of living fat tissue from the body – a prospect that also entails significant loss of blood and other fluids and the chance of infection and other side effects.

Thus, one of the main considerations in terms of safety simply has to do with how much fat is removed. While removing a little bit of fat poses a small risk to overall health, taking out a large volume entails a correspondingly higher degree of risk.

"I personally would not go above eight litres, but many of my colleagues do frequently go up to 11 litres," Dr. Wu says. "I know in Saudi Arabia, Kuwait and Dubai, where the ladies tend to be quite large, all lipos are (high-volume liposuction). So the procedures here are nothing less than six to seven litres, often with tummy tucks and body lifts thrown in as well."

With few exceptions, these more extensive procedures involve greater risk and downtime than more conservative treatments. However, Dr. Wu notes, new techniques and technology allow surgeons to suck out greater volumes of fat more safely than ever before.

WHAT IS FIVE LITRES OF FAT, ANYWAY?

To many, the idea of five litres of fat may seem inescapably abstract. After all, most of us have never had the rare experience of seeing such a quantity of fat in the flesh (no pun intended).

If you're talking about mass, five litres of fat weighs in at around 4.6 kilograms. Sure, this may not seem like much. But we've converted the value in calories of this lump of fat into some more familiar units for you.

Five litres of fat is also equal in calories to each of the following:

- **About 72 Big Macs (without cheese)**
- **635 and a half slices of white bread (about 35 loaves)**
- **551 glasses of red wine**
- **266 cans of Coca-Cola**
- **10.5 kilograms of granulated sugar**
- **8,262 stalks of celery**

For those more familiar with exercise, a 60-kg individual would have to run about 676 kilometres (at 9.5 kilometres per hour) to burn off five litres of fat. That's a bit like running from Kuala Lumpur to Singapore, and then turning around to run three-quarters of the way back. Considering this, it's little wonder that many consider a visit to the cosmetic surgeon an easier trip.

IS LIPOSUCTION RIGHT FOR ME?

The best candidates for liposuction are athletic individuals who are already on an exercise program and have a relatively normal body weight. Usually, these people have done everything possible to remove unwanted fat, and liposuction is seen as a last resort. In general, the procedure is not meant for obese people.

The patient should be in excellent health without any significant heart or lung problems. Liposuction carries greater risk for individuals with medical problems such as diabetes, significant heart or lung disease, poor blood circulation, or those who have recently had surgery near the area to be contoured.

Most of all, to be a good candidate for liposuction, you must have realistic expectations about what the procedure can do for you. The best candidates for liposuction are normal-weight people with firm, elastic skin who have pockets of excess fat in certain areas. You should be physically healthy, psychologically stable and realistic in your expectations. And though age is not a major consideration, older patients often have skin that is not as elastic as that of their younger counterparts, and thus they may not achieve the same results as a younger patient with tighter skin.