Open Body Contour

Despite the great advances which have been achieved since the advent of suction lipoplasty, surgeons and patients are still unable to restore skin elasticity.

Skin becomes loose for several reasons:

- weight gain and loss,
- aging,
- pregnancy and
- disease
- when liposuction has been done aggressively

When loose skin and soft tissues are the problem, traditional surgical techniques are still needed to tighten skin to fit the underlying changed shape. It is the same when you lose several inches around the waist—clothing must be altered by "taking it in". **The skin, which is the fabric covering your body, must be altered by removing the excess.**

There are two main categories of body contouring surgery. The first, suction assisted Lipoplasty (liposuction), involves fat removal through very small incisions. The second includes surgery such as abdominoplasty, thigh lifts, and upper arm tightening surgery.

This is "open" body contour surgery and includes:

- abdominoplasty
- buttock and thigh lifts
- brachioplasty (upper arms)
- breast lift
- combinations: lower body lift, upper body lift etc.
- *Suction lipoplasty is covered separately*

The explosion of body contour surgery we have seen in the past three decades began with liposuction when it was brought to North America in the early 1980's.

More recently two other major factors have made body contouring surgery much more common. The first is the massive growth in the fitness industry, and paradoxically the second is the dramatic increase in obesity … *what a strange culture we have.*

The fitness industry, combined with nutrition and weight loss sectors, account for over $600 billion in sales by recent estimates. Walking down a commercial street in metro Vancouver it is nearly impossible not to encounter a storefront operation of a gym/workout facility, a Yoga or Pilates studio, or something similar; this doesn't include the myriad of establishments selling various nutritional supplements, physiotherapists, massage therapists and fitness equipment outlets. While Vancouver may be particularly known for this, this trend is strong throughout North America.

One of the good things about practicing plastic surgery now, compared to when I first started, is that so many of my patients are now "body aware" and know a very reasonable amount of anatomy and so are very easy to educate about both what I am trying to do surgically, as well as how to rehabilitate after surgery.

With the explosive increase in obesity in North America has come a search for solutions

- basic research looking for "fat genes",
- a huge diet industry (Dr. Bernstein's and others)
- "Bariatric surgery" for obesity (Lap banding and others).

Surgical treatment of Obesity has become very successful and large numbers of patients can now lose huge amounts of weight and keep it off, something that was never achievable by other methods.

The past thirty years has truly seen an explosion of knowledge in the area of body contour surgery.

But a problem has developed. Many of these patients have huge areas of excess skin in their arms, trunks, thighs and breasts, and a whole new sector of plastic surgery, "post bariatric surgery" has developed. Enter post bariatric plastic surgery …

The most common open body contouring operation is abdominoplasty, or Tummy Tuck. Though mini-operations for the abdomen with shorter incisions can occasionally be useful, most patients need a full abdominoplasty to get a good result.

Buttock and thigh lifts are done via incisions placed along the panty or Bikini line through the hip and low back region for the outer thigh and buttock, and high up the inner thigh at its junction with the groin for the inner thigh. In massive weight loss patients, an inseam incision may be needed for the inner thighs. These operations are similar in concept to the abdominoplasty, and are less commonly done, but again, with the massive increase in patients wanting skin removal surgery from Lap banding treatment, they are far more common now than when I wrote the first edition of this book.

Additional procedures have been developed and evolved. These have included "upper body lifts" which remove excess skin from the underside of the breasts and around the bra strap area, and well as procedures to tighten tissues not effectively treated by the procedures I have described above.

History

Removal of a fold of skin plus the underlying fat dates back to the early part of the 20th century. In the 1960's, these operations were refined considerably and popularized by a Brazilian surgeon, Ivo Pitanguy. In addition to abdominoplasty, he did early thigh and buttock lifts. Many of his improvements are with us to this day.

However, the two most significant advances in the last quarter century have been the advent of suction lipoplasty, which allowed for treatment of the abdomen fat, with or without skin removal, and the deep layer support techniques of Dr. T. Lockwood of Kansas City. He carefully looked at the anatomy of the abdominal wall and decided that there was merit in using the superficial fascia, a layer of thin but strong tissue, part way down in the fat layer, as the main means of support, in repairing the skin incisions during both abdominoplasties and thigh lift procedures. Since Dr. Lockwood's major contributions in the 1990's, there have been further major contributions from a host of surgeons in the past two decades.

Who is a suitable patient?

This is significant surgery and should only be done with thorough preparation by both the surgeon and patient.

Here are some guidelines:

- Good general health
- No history of bleeding or blood clot formation
- Significant skin and deep tissue looseness
- Ability to accept the necessary incisions and scars

Patients for body contouring may initially come to their consultation requesting liposuction, complaining of unsightly fat and "cellulite".

Because of looseness of the skin and deep tissues, the results of suction alone will be disappointing or even make matters worse. While suction offers an operation with little in the way of post-op scars, it will result in further loose skin and likely significant contour irregularities. For this reason, a lift procedure is more appropriate.

The necessary tradeoff is the scar. Scars fade with time but never disappear completely.

Some of these patients will have had suction done in the past and wish to have something further done.

PROCEDURES

Abdominoplasty

"Brachioplasty"

This operation tightens the skin of the arm, usually via an incision running from the armpit to the elbow. We try to place it so that it doesn't show either from a front view or rear view with the arm by your side. I do not advocate this when patients cannot accept the scar being quite visible for an extended period, or when looseness of the skin is not substantial—there must be clear benefit to the surgery which outweighs the disadvantage of the lengthy scar in a prominent area.

Brachioplasty is quite commonly done in combination with a breast lift or upper body lift, for massive weight loss patients.

Upper Body Lift

Upper body lift may combine a breast lift, extending its incisions around the torso along the bra line, to remove hanging skin and fat in the mid back roll.

Lower Body Lift

Lower body lift is a buttock/thigh lift combined with abdominoplasty, with or without an inner thigh lift.

Buttock Thigh Lift

This procedure involves an incision running around the hip from the groin to the sacral area where it joins the incision from the other side. Through these incisions the outer upper thigh and buttock are lifted, and skin/fat excess are removed.

Medial (inner) Thigh Lifts

These are done in two ways. The first, a limited procedure, is done through incisions in the pubic and groin crease, will reduce looseness in the upper inner thigh, but with little or no effect below the mid-thigh.

In more extensive inner thigh looseness, and inseam incision running down nearly to the knee, is needed.

Breast Lifts

Breast lift, with or without using implants or fat grafting to increase breast volume, are often part of the overall plan in dealing with patients who have multiple body contour issues.

We often use a "team approach" with the massive weight loss patient, combining procedures under one anaesthetic more safely by having two plastic surgeons working simultaneously so as to complete extensive surgery in a much shorter time and reducing the number of times a patient needs to undergo surgery and go through recovery. Thus, Breast lift is often combined with a brachioplasty, thigh lifts with

abdominoplasty as a lower body lift, perhaps even with other procedures. I usually prefer to limit surgery time to less than six hours, and these extensive operations usually involve an overnight stay in the surgery centre.

Procedure

The goal of these procedures is to achieve a youthful contour to the abdomen and flanks, or to the buttocks and thighs, the upper arm, or whatever anatomical zone is being treated.

The aim is to re-create this appearance of youth, both at rest and with activity. Because photographs are taken with patients in static, or unmoving poses, a result from liposuction which looks good with the flash lighting and stationary pose of medical photography, maybe actually not so great in real life. Dimpling and irregularities of the skin may be quite mild in a young patient who has not had children and good skin tone. In an older patient or one who has less tone after weight loss, pregnancy or illness, there may substantial skin tone reduction.

Risks and Possible Complications

Abdominoplasty, and the related body contouring operations, all share similar risks and possible complications.

These include:

- Infection
- Bleeding
- Seroma
- Venous thrombosis and pulmonary embolus
- Wound healing complications (necrosis, etc.)

Infection

Serious infection is rare but can occur. It is common to have small degrees of wound inflammation requiring oral antibiotics but routine use of antibiotics after surgery is controversial

Bleeding

Post-op bleeding can result in substantial blood loss and a large volume of blood collection under the surface (hematoma). This requires urgent re-operative surgery, usually care in hospital, and may require transfusion. Fortunately, these events are rare.

Seroma

Because a space exists between the muscles of the abdominal wall and the overlying skin and fat, fluid can accumulate during the early healing phase, until these layers re-unite. For this reason, we use a drain, a soft tube with multiple holes which is placed between the skin and the muscle and exits to a small plastic bottle and removes the fluid (serum) which your body produces during the healing phase. This is removed at five to seven days after surgery. Occasionally, serum will continue to accumulate and collect, forming a seroma, which is like a lake of serum under the surface. This sometimes requires removal, either with a needle or with a new placement of a drain, but this is only a temporary problem, and usually resolves gradually. *For more on this topic, please read online at wikipedia.org/wiki/Seroma.*

However, problems with poor or delayed healing of the incision can occur, leaving areas with widened scars after crust formation. This is a much greater risk in smokers, so avoidance of smoking is essential.

Venous thromboembolus (VTE)

Formation of blood clots in the legs (thrombophlebitis), with possible passage of a clot to the lung can occur with any of these procedures. While rare, this is potentially a very serious problem. At one time, abdominoplasty patients were routinely kept on bed rest for several days after surgery; today, patients are routinely up and walking within a day or so after surgery. Early mobilization has always been felt to be one of the best preventive measures against

thrombophlebitis, and we believe it to be of value in body contour surgery. However, there is evidence now in favour of chemoprophylaxis, which means we routinely use blood thinners around the time of surgery. This has been done for many years both for orthopedic procedures such as major hip and knee surgery, and for other major surgery. Now, we are advised to do this for for major cosmetic body contouring procedures. My routine in the past five years has been to give blood thinners for ten days after surgery, beginning the day after surgery. Routines vary among experts in this area, but research is being done to find the best routines for plastic surgery.

Wound Healing Problems

Problems with poor or delayed healing of the incision can occur, leaving areas with widened scars after crust formation. This is a many times greater risk in smokers. All smokers must quit for this surgery.

CONCLUSION

Major body contour surgery has become commonly performed plastic surgery and offers an increasingly wider series of procedures for patients with a variety of body contour deformities, whether after pregnancy, or after major weight loss.

We refer massive weight loss patients to a trusted colleague, Owen Reid, MD. Dr. Reid has developeda practice with specialization and real expertise in this area, and works closely with general surgeons from the Richmond hospital who do Bariatric surgery on the morbidly obese patient. *For more information on our colleague, please visit www.drreidplasticsurgery.ca.*

Meet the Doctor

BENJAMIN GELFANT MD FRCSC

Dr Gelfant is a member of the Canadian Society for Aesthetic (Cosmetic) Plastic Surgery (CSAPS), as well as the American Society of Plastic Surgeons (ASPS) and the American Society for Aesthetic Plastic Surgery (ASAPS).

View more procedures and learn about Benjamin's process at **drgelfant.com**