

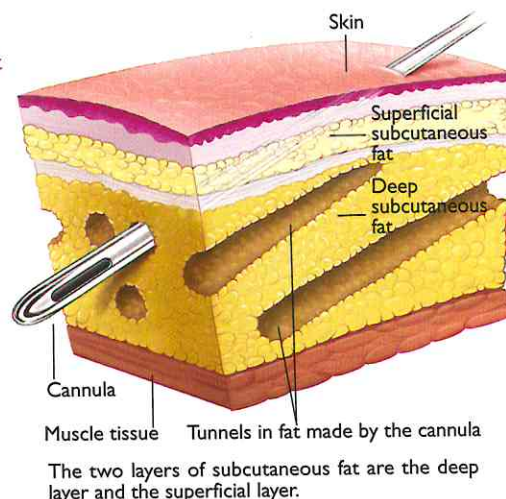
LIPOSUCTION

Treatment information to assist informed consent

Liposuction is a surgical procedure to remove fat deposits from specific sites of the body. Also called liposculpture or suction-assisted lipectomy, liposuction is not a way to lose weight. However, it may be an option for people who want to reduce bulges of fat that have resisted dieting and exercise.

Fat deposits are removed using a thin metal tube called a cannula, which is inserted into deep subcutaneous fat or sometimes superficial subcutaneous fat. The cannula is connected to a plastic hose which leads to a suction source. The surgeon moves the cannula in a specific pattern through the fat. The intention is to decrease the bulk of fat but not to remove all of it. Fat is an important tissue that helps to maintain skin shape and firmness. Removal of too much fat can result in loose skin and surface irregularities.

Most liposuction procedures remove deep subcutaneous fat. In certain procedures (for example, the neck or around the face), superficial subcutaneous fat may be removed.



COMMON REASONS FOR SURGERY

- To improve the shape of:
 - ❖ legs (including ankles, calves, knees, inner thighs and outer thighs)
 - ❖ buttocks and hips
 - ❖ waist and abdomen
 - ❖ breasts, chest and back
 - ❖ overdeveloped male breasts (gynaecomastia, which can occur in teenage and adult males)
 - ❖ back of the upper arms
 - ❖ neck and chin.
- To reduce bulk and produce a more natural skin contour at the site of previous surgery or trauma.
- To remove large fatty tumours known as "lipomas".
- As a part of other plastic surgery procedures, such as abdominoplasty (abdominal reduction) or reduction mammoplasty (breast reduction).

Liposuction does not improve cellulite (the dimpled appearance of the skin of the buttocks and thighs) or stretch marks (as caused by rapid weight gain or pregnancy). Cellulite and stretch marks are not related to fat accumulation beneath the skin.

THE DECISION TO HAVE SURGERY

A decision about liposuction should be made only after discussion with your surgeon. The decision whether to have liposuction is always yours and should not be made in a rush. Make a decision only when you are satisfied with the information you have received and believe you have been well informed.

Your surgeon will be pleased to discuss the benefits, risks and limitations of liposuction. When making the decision, keep in mind that your surgeon cannot guarantee that liposuction will meet your expectations, that it bears no risk and that it will be successful. Read about the general risks of surgery and specific risks of liposuction on page 4.

Liposuction is a cosmetic procedure and "elective" surgery, meaning that it is a matter of personal choice and not needed to maintain good health.

It is not possible to predict exactly the contours of the treated area after liposuction. Other factors such as weight gain, weight loss or fluid retention will affect your body shape.

With your surgeon, you are encouraged to fully discuss:

- the result you desire
- the treatment to be done and why
- risks and benefits of liposuction
- the likely outcome you should expect.

Seek the opinion of another surgeon if you are uncertain about your surgeon's advice. Use this pamphlet only in consultation with your surgeon.

CONSENT FORM: If you decide to have liposuction, your surgeon will ask you to sign a consent form. Before signing, read it carefully. If you have any questions about it, ask your surgeon.

TALK TO YOUR PLASTIC SURGEON

This pamphlet is intended to provide general information. It is not a substitute for advice from your surgeon and does not contain all known facts about liposuction or every possible side effect. If you are not sure about the benefits and risks of liposuction, or anything else, ask your surgeon.

Read this pamphlet carefully and save it for reference. Technical terms are used that may require further explanation. Your surgeon will be pleased to answer your questions.

IMPORTANT: FILL IN ALL DETAILS ON THE STICKER

DEAR SURGEON: When you discuss this pamphlet with your patient, remove this sticker, and put it on the patient's medical history or card. This will remind you and the patient that this pamphlet has been provided. Some surgeons ask the patient to sign the sticker to confirm receipt of the pamphlet.

TREATMENT INFORMATION PAMPHLET

PEEL HERE

PROCEDURE: _____

PATIENT'S NAME: _____

DOCTOR'S NAME: _____

EDITION NUMBER: _____ DATE: DD / MM / YYYY

YOUR SURGEON

AUSTRALIA PLASTIC
SURGERY

REALISTIC EXPECTATIONS

Liposuction is suitable for healthy people who have realistic expectations of the outcomes of surgery. Older people with less elastic skin may not obtain the cosmetic results that can be

achieved in those with younger, more supple skin. Other plastic surgery procedures that remove excess fat and surplus skin may be more suitable for some people. Identify the areas of your body you are unhappy with. Discuss these in detail with your plastic surgeon. This will

help your surgeon to understand your expectations. Your surgeon will examine your fat distribution, determine your skin elasticity, and discuss the surgical options that are available. Before and after liposuction, photographs are usually taken for your medical records.

THE LIMITATIONS OF LIPOSUCTION

- Surgeons may recommend diet, exercise, and other surgical procedures as ways of losing large amounts of weight before undertaking liposuction. Individuals are poor candidates for liposuction if they weigh more than 15 kilograms above their medically defined “ideal body weight”. The best candidates are at or near their ideal weight but have local fatty areas that do not get smaller with diet and exercise.
- If food intake is not controlled following liposuction, fat tissue at other sites in the body may increase in size, creating new unwanted bulges.
- Liposuction may not be appropriate for people with large folds of skin that

need to be surgically removed, in procedures such as abdominoplasty, breast reduction, breast lift or face lift.

- Liposuction does not improve muscle tone. Removal of fat will not produce a flat abdomen or tight buttocks if the underlying muscles are weak. Surgeons recommend exercise to improve muscle tone.
- A good diet and adequate exercise after liposuction are very important. If the person gains weight after liposuction, more liposuction may be needed in previously treated areas to maintain a good appearance.
- Liposuction is not used to remove visceral fat (also called intestinal fat) in the abdomen.

Fat metabolism and liposuction

Little is known about the long-term effects of liposuction on fat metabolism, that is, how the body uses, burns and stores fats. Fat cells have important roles in the body’s metabolism, but the removal of small amounts of fat cells is unlikely to be harmful. Even significant fat removal in “large-volume liposuction” is thought to be safe. However, doctors are not certain of the precise effect that the removal of large amounts of fat tissue may have on the body.

After liposuction, the remaining fat cells do not multiply to replace those removed. If weight is gained, it is due to the enlargement of existing fat cells, rather than the growth of new cells.

BEFORE SURGERY

Your surgeon needs to know your medical history to plan the best treatment. Disclose health problems you have or may have had. Some may interfere with surgery, anaesthesia and aftercare.

Tell the surgeon if you have had:

- an allergy or reaction to antibiotics, anaesthetic drugs, any other medicines, surgical tapes or dressings
- prolonged bleeding or excessive bruising when injured
- previous problems with blood clots in the lungs or deep veins of the legs (deep vein thrombosis, DVT)
- recent or long-term illness
- keloid or hypertrophic scars, or poor healing of scars after previous surgery
- psychological or psychiatric illness
- treatment for a hernia.

Blood tests, chest X-ray examinations and electrocardiograph (ECG) tests may be needed to assess your suitability for surgery and general anaesthesia. Some people with certain medical conditions may have a high risk of complications and not be suitable candidates for liposuction.

Give the surgeon a list of ALL medicines you are taking or have recently taken. Include ALL medicines prescribed by doctors (including insulin, antidepressants, warfarin and contraceptive pills) and those bought “over the counter” without prescription, including vitamins, supplements, and naturopathic or herbal medicines.

Some medicines interfere with the clotting of blood. This can cause excessive bleeding during surgery. If you are taking a medicine to prevent a blood clot,

seek the advice of your surgeon and prescribing doctor before stopping or changing the dose of the medicine. Some patients continue to take aspirin before surgery, especially if they have a risk of heart attack or stroke. Discuss this carefully with your surgeon.

Some doctors recommend stopping the contraceptive pill before surgery to reduce the risk of blood clot problems. Check with your surgeon.

Your surgeon may prescribe drugs, such as antibiotics and small doses of blood-thinning agents, to be administered prior to surgery.

Smoking: Stop smoking at least six weeks before surgery. Smoking increases surgical and anaesthetic risk and impairs healing. It is best to quit.

ANAESTHESIA

Liposuction is usually carried out under general anaesthesia (where you are asleep). For the treatment of small areas or for the tumescent technique (described on page 3), local anaesthesia and conscious sedation (where you will be awake, but sedated, with injections to numb the surgery site) are often used.

COST OF TREATMENT

Your surgeon can advise you about coverage by private health insurance and out-of-pocket costs. Ask for an estimate of medical and hospital fees and other costs. This is an estimate because the actual treatment may differ from that proposed. If further treatment is needed due to complications, or other options that you choose, extra costs are likely to apply. A Medicare or health-fund rebate may be available for treatment of complications. Goods and services tax (GST) may apply. It is best to discuss costs before treatment rather than afterwards.

SURGICAL METHODS

The location of incisions and surgical technique depend on the amount of fat to be removed, your surgeon's recommendations and your preferences.

Your surgeon may use a skin pen to mark you before surgery to map out incision points and the direction of suction.

Blood loss and fluid loss limit the amount of fat that can be safely removed during any one session.

Although modern techniques allow the large-volume removal of more than five litres of fat with relative safety during one session, this does not represent much in terms of weight loss.

The length of surgery depends on the size and number of areas being treated. It usually takes from one to two hours. The tumescent technique takes longer than the dry method because the injected solutions take up to an hour to be absorbed into the fat. Over recent years, surgical methods and instrumentation have been developed to improve results and minimise the risks of complications. Your surgeon can discuss which may apply to your individual case.

The main methods of liposuction are as follows.

1. Tumescent technique

The surgeon injects large quantities of fluid (up to three times the volume of the fat to be removed) into the fat layer through small incisions around the operation site. The fluid contains a salt solution, local anaesthetic and medicines to reduce localised bleeding. The fat layer expands as the fat cells swell with fluid.

The surgeon inserts the cannula through a small incision about one-half to one centimetre long. Tunnelling is easier through the swollen fat cells. Suction removes the fat tissue and most of the injected fluid. The rest of the injected fluid is absorbed by the body and is later excreted as urine.

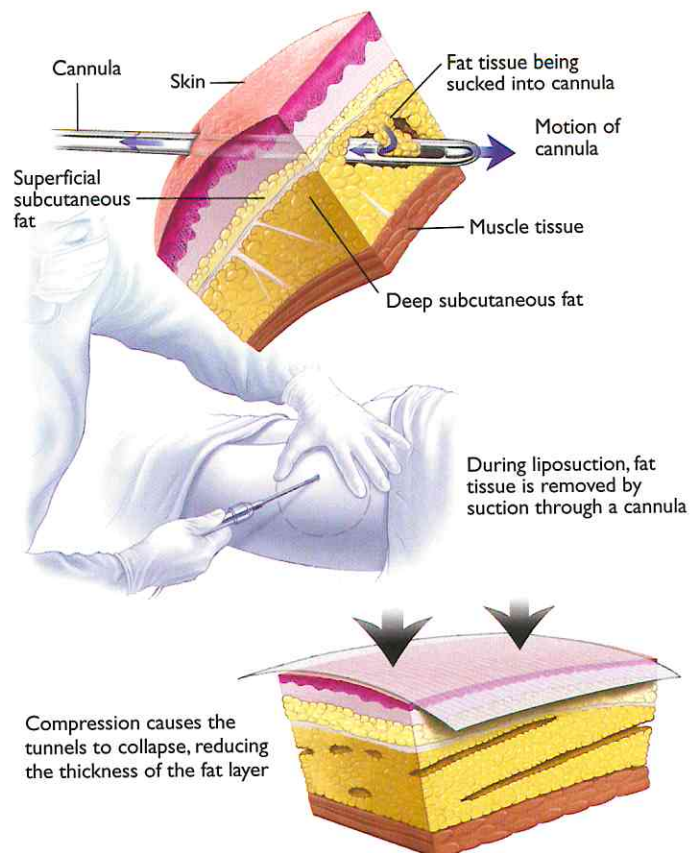
As the Tumescent Technique reduces bruising and swelling, larger quantities of fat can be removed.

The local anaesthetic reduces pain and discomfort during the procedure and for several hours after surgery.

2. Ultrasound-assisted lipoplasty (UAL)

With UAL, the surgeon uses a cannula that produces ultrasonic (high-frequency sound) energy. The ultrasonic vibrations disrupt the fat cell membranes and liquefy the fat tissue. The liquified fat is then removed with suction.

With external UAL, ultrasound energy is passed through the surface of the skin before the cannula is inserted. The external approach breaks down deeper layers of fat and allows more to be removed by suction.



An ultrasonic cannula can usually move through firm fat tissue more easily than conventional cannulas. If using UAL, the surgeon may also use the Tumescent Technique.

3. Power-assisted liposuction (PAL)

During PAL, the surgeon uses a cannula connected to an external power source. The powered cannula moves in short, precise forwards-and-backwards strokes, breaking up the fat tissue that is then suctioned away. PAL can be advantageous in the removal of larger volumes of fat. If using PAL, the surgeon will generally use the Tumescent Technique.

4. Dry technique

The surgeon inserts and manipulates the suction cannula, as in the Tumescent Technique. The surgeon moves the cannula through the fat layer to remove the fat tissue and create a series of tunnels at different depths and in different directions. The dry technique is less frequently used now due to its relatively large blood loss. After surgery, compression of the treated areas using an elastic compression garment causes the tunnels to collapse, reducing the thickness of the fat layer.

RECOVERY AFTER SURGERY

After surgery, you are transferred to a recovery room where you stay until you are awake. Nursing staff observe your recovery and monitor your heart rate, blood pressure and breathing.

If you are a day surgery patient, you may be ready to go home after a few hours. Arrange for someone to drive you to and from the hospital or clinic.

Ensure that you have an emergency telephone number for your surgeon and the clinic. A responsible adult should stay

with you for at least 24 hours after you return home.

Most people report that pain, discomfort or stiffness for the first few days after surgery are minor. Paracetamol is usually enough to relieve pain. If you need stronger pain relief, tell your surgeon. Pain and discomfort should fade during the first week. Aspirin may not be recommended for pain relief due to the risk of increased bleeding during healing. Consult your surgeon if you want to take aspirin.

Take things easy for the first few days.

You will be advised to get out of bed for short periods to improve your circulation and gradually increase your activity.

Drain tubes may remain in place for a few days to drain the excess fluid. They are removed by your surgeon or a nurse.

A tight fitting elastic garment will reduce swelling in the treated area. This may be needed for several weeks. Small adhesive dressings will cover your incisions. Your surgeon will give instructions on special care, bathing and showering. Stitches, if not dissolvable, will be removed by the surgeon or a nurse as part

Continued on page 4

of your follow-up.

Swelling and bruising are common. Although some bruising will disappear in the first week after surgery, it may be several weeks before skin discolouration fades. It may be several months before the treated areas completely heal and acquire their final shape and contour. Massage may be recommended to ease swelling.

Surgeons recommend that a stable weight be maintained after surgery to achieve longer-lasting results. Liposuction works best in those who exercise regularly and control their diet.

Resuming normal activities

The resumption of normal activities is dependent on the nature of those activities, the extent of treatment and how well

you feel. Most people can return to work from a few days to two weeks after surgery. Light activities can usually be resumed after two to three weeks.

Over-exertion will lead to increased swelling and soreness. Normal activity can usually be resumed after six weeks.

Your surgeon will advise you and arrange follow-up appointments.

POSSIBLE COMPLICATIONS OF LIPOSUCTION

Modern liposuction is safe but does have risks of complications, despite the highest standards of surgical practice. The risk of complications increases with the amount of fat removed. Surgeons usually do not recommend the removal of large volumes of fat using liposuction.

It is not usual for a surgeon to dwell at length on every possible side effect or rare, serious complications of any surgery. However, it is important that you have enough information to weigh-up the risks, benefits and limitations of liposuction. Most patients will not have complications, but if you have concerns, discuss them with your surgeon.

The following possible complications are listed to inform and not to alarm you. There may be others that are not listed.

General risks of surgery

- Wound infection may require treatment with antibiotics and can delay healing. Due to the large areas often treated by liposuction, serious infection (septicaemia) can develop and may require intravenous antibiotics.
- Excessive bleeding can occur. A blood transfusion may be required.
- Infrequently, a blood clot can occur in a deep vein (DVT). This can be life threatening if it moves to the lungs, heart or brain. Urgent treatment is necessary.
- A chest infection may develop after a general anaesthetic.
- A sore throat, caused by the breathing tube used during anaesthesia, can last for several days.

Specific risks of liposuction

- Uneven or asymmetrical results and skin-contour defects such as rippling, dimpling and loose skin can occur. Further surgery may be necessary to correct these problems, although no guarantees can be given as to its success.
- Blood and fluid can collect under the skin. Small amounts are reabsorbed by the body. Larger amounts may need to be drawn off by the surgeon.

■ Brown spots and skin discolouration can occur in treated areas as a result of pigments leaking out of damaged blood cells. These may become permanent if exposed to the sun or sun lamps.

■ Although the cannula is designed to slide through fat tissue and cause a minimum of injury to skin, blood vessels and nerves, some may be injured during the procedure. This can delay healing and cause skin loss. Further surgery may be required to remove damaged skin. Skin grafting may be needed to provide a skin cover. Skin loss, further surgery and skin grafting will lead to permanent scarring.

■ Temporary loss of sensation and numbness of the skin can occur in and near the treated area. In most cases, sensation returns. However, loss of sensation and numbness can sometimes be permanent.

■ The body absorbs the local anaesthetic used in the tumescent technique. If too much is absorbed, the heart can be affected, slowing it down too much. Treatment requires emergency administration of drugs to correct heart problems; observation of the patient in an appropriate medical facility may be needed.

■ Local anaesthetic overdose can lead to disturbance of the central nervous system causing anxiety and nausea. In extreme cases, convulsions may occur and will require emergency treatment.

■ The absorption of large amounts of tumescent fluid from the fat layers can cause accumulation of fluid in the lungs. Respiratory symptoms range from a slight shortness of breath to an inability to breathe properly. If not treated, using drugs to help the kidneys excrete the excess fluid, this can be life threatening.

■ Fat globules can be released into the blood stream, causing emboli that may move to the heart and lungs. This can be life threatening.

■ Heat produced during ultrasound-assisted lipoplasty may cause blistering, discolouration or loss of skin. Rarely,

other organs (for example, the liver) may be damaged.

■ Although rare, there have been reports of damage to internal (abdominal) organs (especially the bowel) due to the cannula passing through the muscle layer, particularly near the site of a hernia. Peritonitis (life-threatening infection within the abdomen) may result, which requires urgent treatment with antibiotics.

■ Excessive fluid loss may require intravenous fluid replacement after surgery to prevent shock.

■ The long-term side effects of ultrasound-assisted lipoplasty on the body's tissues are not fully known. The effects of external ultrasound-assisted lipoplasty on fat that remains in the body have not been fully evaluated.

■ In some people surgical scars can become pink, raised, thick, itchy and tender for many months. Called keloids, these usually fade and flatten over 18 months to two years, but sometimes require treatment. Keloids can be annoying but are not a threat to health.

■ Death has been reported but is rare, and has been estimated at two deaths per 10,000 procedures. Some surgeons believe that the risk may be less, particularly for tumescent liposuction under local anaesthesia.

REPORT TO YOUR SURGEON

Tell your surgeon if you have any of these problems following liposuction:

- fever (with a temperature of more than 38°C) or chills
- heavy bleeding or oozing from any incision
- increased swelling around the surgical sites
- increasing pain
- redness around incision lines that is spreading
- feeling dizzy, faint or short of breath
- any other concerns regarding your surgery.