

INFORMATION SHEET ABOUT PLASTIC SURGERY
FOR ABDOMINAL PROBLEMS
ABDOMINAL SKIN REDUCTION, ABDOMINOPLASTY,
MINI ABDOMINOPLASTY, “TUMMY TUCKS”, LIPOSUCTION
AND CORRECTION OF UNSIGHTLY SCARS

INTRODUCTION

There are three main reasons for a woman’s abdomen to become unsightly. These are pregnancy, obesity and gynaecological surgery (hysterectomy is the commonest),

Pregnancy tends to over-stretch the skin above or below the belly button (umbilicus). Sometimes the skin simply becomes lax without stretch marks but in most cases over-stretching of the skin leads to stretch marks as well. There are some unlucky women who have stretch marks without ever becoming pregnant and this may be related to obesity or a sudden change in their hormones in teenage years.

Pregnancy can also over-stretch the internal muscles of the abdominal wall so that they separate “divaricate”. The muscles fail to regain their tone so that the lower part of the abdomen tends to stick out like a pot belly, particularly when the person relaxes. Sometimes this can be corrected by vigorous exercises and toning up of the muscles but this is usually only successful in people whose muscles have not been stretched too badly.

Obesity, or being overweight, produces an over large tummy due to a build up of fat both inside the abdominal cavity (around the intestines) and on the outside of the abdominal cavity between the muscle wall and the skin. A lot of people think that one can get rid of this fat simply by sucking it out, but unfortunately, liposuction only gets rid of the fat between the muscle and the skin. The vast bulk of the fat, which is associated with being overweight, is inside the abdominal wall and will only be reduced by dieting.

Some people are able to diet quite easily and without emotional and physical distress. These are the lucky ones and successful dieting may result in marked improvement in the appearance of the abdominal wall but will never get rid of loose skin and in these patients it is necessary to take away the spare skin, preferably from just above the pubic area where the scars won’t show very obviously.

There are some people in whom dieting manages to get rid of most of the fat from the rest of the body but fails to improve the appearance of the lowest part of the abdomen so that they still have a little pot belly. This is most embarrassing for them and they are often reluctant to wear a bikini or go swimming or take part in aerobics. This “diet resistant fat” is best removed by liposuction together with removal of any loose skin.

Following a hysterectomy the skin and fat above the scar line of the hysterectomy sometimes fills up with fluid which fails to drain away properly. This is another reason for this embarrassing little bulge just above or at the level of the panty line. It can also be corrected by the combination of liposuction and skin removal.

Some women have vertical abdominal scars which run from the pubic hair up to or past the umbilicus. Occasionally these scars are very tight or swollen or itchy. These scars can sometimes be improved in appearance and in their tightness by adjusting the scar in some way. Occasionally the scar forms the base of a deep groove in the lower abdominal wall with the skin bulging out on either side of the scar. These cases can also be corrected by removal of the fat on either side of the scar and adjustment of the scar.

WHAT YOU CAN DO TO IMPROVE YOUR ABDOMEN

- 1) Try and lose weight and get down to your ideal weight for your height and age.
- 2) Stop smoking.
- 3) Tone up your tummy muscles with sit-ups, weights, leg raising and general exercise.

WHAT THE PLASTIC SURGEON CAN DO

There are several types of operations which can be done either alone or in combination. These include:-

1) Liposuction:

In this a special steel tube is passed through a tiny hole in the skin and the fat is sucked out from between the muscle and the skin. The total amount that can be removed from the abdominal wall is seldom more than about 1 kilo, and in most cases is usually a great deal less than this. Liposuction is never used to help weight reduction. The most that can ever be removed by liposuction from an average person's body is 3-4 kilos at any one time. (This is only 6-8lbs.) This amount could be lost by careful dieting in a month and so liposuction has to be used as a means of getting rid of fat which does not respond to dieting.

2) Tightening up or (reefing) the muscle wall by internal stitching:

A weave of strong Nylon-type stitching is introduced in the outer layer of the muscle, thereby introducing an effective girdle in the front part of the abdominal muscle wall. It corrects the looseness of the muscle and any tendency of the muscles to separate (correction of divarication). It tends to make the muscle wall very stiff for a month or so afterwards. The stitches do not have to be removed and it is very rare for these type of stitches to cause trouble in the long term. It might interfere with pregnancy by preventing natural stretching of tummy muscles, and so this would need to be discussed with the surgeon if further pregnancy is possible.

3) Skin removal:

- (a) In a small amount in which the umbilicus stays as it is, this is known as a “mini-abdominoplasty”.
- (b) Skin removal in a large amount. This is the so-called standard abdominoplasty in which the skin above the umbilicus is draped downwards as far as the pubic hair. The umbilicus has to be recreated in its usual place in the middle of this re-draped skin. This is a bigger operation than the mini-abdominoplasty because there is much more extensive dissection of the skin and the operation takes longer to perform. Recovery from this operation also takes several more days than following a mini-abdominoplasty.

4) Scar removal (and/or Re-stitching):

Scars can sometimes be improved by removing them and re-stitching. This needs careful assessment by the surgeon.

NB: Every woman is different and the operation which will help her most will need to be tailored to her individual requirements. So some women will just need liposuction, others may need liposuction and a mini-abdominoplasty and others might need a full abdominoplasty with muscle tightening and liposuction.

Liposuction

Liposuction always leads to bruising because blood vessels are damaged in the process of sucking out the fat. Nerves are also damaged because they are stretched and so the tummy wall is often slightly numb in the area of liposuction.

Firm compression with a tight and well fitting corset or girdle is needed after the liposuction to reduce the swelling and the bruising. A lot of bruising, which is seen as a purplish or yellow discoloration in the skin, can be expected and it often tracks down into the thighs even though the thighs may not have been touched surgically.

The bruising tends to last for a week or so and it is advisable to wear the corset for a whole month to prevent swelling. However, gentle exercises are permitted even while wearing the firm compression garment. Compression garments are not needed after a routine abdominoplasty in which there has been minimal liposuction. The surgeon can give advice about which type/style of garment should be bought.

Other forms of Abdominoplasty

In some cases it is not possible to remove all the skin below the umbilicus because the gap resulting will not close. In such cases one has to compromise and either leave a short vertical scar above the pubic hair, or raise the level of the horizontal abdominoplasty scar. The vertical scar would be in addition to the normal transverse scar which runs across from one side to the other just above the pubic hair. In such a case an up side down 'T' shape scar results. The quality of this scar is usually satisfactory eventually because the scar fades with time, but the majority of women prefer to avoid it and would opt for a slightly higher horizontal scar.

In some women the standard or the mini-abdominoplasty operations are not appropriate and less conventional surgery is required. This might be because all the loose skin lies immediately around the umbilicus rather than elsewhere and in such cases I have solved the problem by leaving the patient with a long scar across the middle of the abdomen. I don't like doing this because it is much better to try and leave the scar in a place where it is going to be hidden by a bikini or panty but unusual problems sometimes require unusual solutions...

The Operation

All the operations are done under general anaesthetic. It is theoretically possible to do liposuction under local anaesthetic but I have never done it, and would not choose to do so unless there was a very compelling reason.

It would be reasonable to try and do some of the surgery under a spinal or epidural anaesthetic if a general anaesthetic was out of the question.

Following liposuction alone many patients are able to return home the same day, but when the skin has been cut and skin has been removed it is usually sensible to stay in for one night following surgery. Most mini-abdominoplasties need one night in hospital after surgery and most standard abdominoplasties need between two and three days in hospital.

Surgical Drains

It is usual practice to suck away the body fluid which accumulates in the area which has had liposuction or which has had skin and fat removed by cutting it out. This is achieved by leaving some very fine plastic tubes inside the wound which come out through the skin nearby the edge of the wound.

The tubes are connected to a small plastic collection bottle which can be carried attached to the waistband if necessary. The drains themselves don't hurt (and taking them out shouldn't hurt either). When it is time to take the drains out they are simply slid out by gently pulling on them.

The amount of fluid drained is often very considerable for several days and it is usually wise to leave the drains in place until the measured amount of fluid is less than about 30-50ml over a 24 hour period. Early removal of the drains is seldom a disaster but may result in unwanted swelling which takes several weeks to disperse.

My patients are encouraged to return home while the drains are still in place because they are simply a small nuisance rather than a major handicap. The patients can return to hospital or to the clinic to have them removed as an outpatient. The procedure takes a few minutes and there is no recovery time required afterwards.

A lot of patients are rather worried or scared about this idea but I have never come across a single patient who has found it difficult to handle in practice.

Complications of Surgery

Serious complications from this type of surgery are extremely rare. I have never known of or heard of a patient who has died as a result of this type of surgery. There are, however, important but treatable problems and these include the following:

1) **Skin Loss /Skin Necrosis**

The worst potential complication is skin loss or skin necrosis in which the skin dies because it loses adequate blood circulation. This can happen if too much skin is removed, and so closure of the wound is over-tight. It is more likely to occur in smokers – especially smokers who continue to smoke just after their operation, even if closure wasn't tight! So I usually refuse to do abdominoplasties in smokers. I don't want unnecessary and avoidable complications. If a person's tummy skin dies, it may require a skin graft to repair the lost part. This is never attractive and might need a later reconstructive operation to improve it. So, in general, this is an operation best done on people who have managed to lose excessive weight and to stop smoking

2) **Pain**

This can be very mild or quite severe depending upon the type of operation, the tightness of the skin and the individual person's reaction to surgery. (The same operation produces very different levels of pain in different people.) Patients who have the rectus sheaf tightened up to correct a divarication (gap between the muscles) are more likely to experience pain lasting several days but it disappears and they feel that the extra slimness in their figure is worth it for the extra pain suffered. The pain can always be controlled by injections in the immediate 24 hours or so after the operation and so there is no need to fear pain because it can always be controlled. However, the injections may also make you feel sleepy and possibly slightly nauseated. Once you have left hospital the pain should be controllable by ordinary tablets although occasionally some patients who have had liposuction only, have pain which needs something stronger than an ordinary tablet.

NB: It is very important to avoid the use of Aspirin or Anti Inflammatory drugs, like Ibuprofen, at any stage before or after the operation because Aspirin can increase the amount of oozing and bleeding. Patients who have to wear a firm corset often find it is very uncomfortable in the first day or two following the surgery. I often advise patients to try out wearing a corset for two or three days before they have their operation so that their skin and body get used to it.

Most pain will ease within a few days of an operation and patients are able to walk around and turn in bed, go to the lavatory and dress themselves without too much discomfort.

If a person develops a new pain a few days after or a week or so after the operation it is sensible to mention this to the doctor for advice because it might signal the onset of infection.

Stitches often irritate the skin and are sometimes a source of pain but usually once the stitches have been removed or dissolve the pain disappears. My own personal preference is to use buried dissolvable stitches so that no stitches have to be removed after the surgery. Occasionally, however, the knots of these stitches work their way up to the surface of the skin and can irritate the outside of the skin and cause a minor septic spot which is troublesome for the patient until it has broken and released the pus and possibly the knot which caused it. Fortunately, this problem doesn't happen very often.

3) **Swelling**

Swelling is very common after any operation on skin and usually takes a week or two to settle down. The swelling is controlled best by using a firm corset. Massage is unlikely to alter the swelling and exercise may in fact make it worse rather than better. The swelling is in large part due to a build up of fluid due to the internal injury. This fluid has to drain away and one of the ways it would normally drain away has been damaged by the surgery. It can take several weeks before new channels of lymphatics form to clear this fluid if it is not helped by compression. This is why it is worthwhile wearing a firm corset for several weeks.

In patients who may have had radiotherapy these drainage channels often never re-form and the swelling is permanent. Fortunately, radiotherapy for abdominal problems is rare and so it should not be a problem for a patient wanting cosmetic type surgery on the abdominal wall.

4) **Bruising**

Bruising means the discoloration of the skin, which is due to the escape of blood outside the normal tiny blood vessels in the fat underneath the skin. The bruising in its very early stages is, of course, red but it then takes on a purple colour within a few minutes. There may be a considerable build up of escaped blood underneath the skin in which case the blue or purplish bruising can last for several days. It usually starts to disappear within four to five days and in most patients will have disappeared altogether within three weeks, but it may go through a phase of yellow colour first.

The escape of blood often extends far beyond the part which was operated upon and so in the case of the abdomen it may track down underneath the skin into the thighs or into the buttocks. You don't need to worry about this particularly and you can be sure that it will clear up at just the same rate as the bruising in the abdominal skin.

Bruising is seldom a problem when straightforward cutting type surgery is performed but is usually dramatic and extensive after liposuction. Bruising after liposuction does not indicate that things have gone badly or been done improperly. However, some people bruise a great deal and some people bruise very little after surgery. If you happen to know that you bruise badly then you can expect to bruise after this type of surgery

5) **Oozing from the outside of the skin wound**

All wounds tend to ooze a bit and to stain the dressings, first with the red colour of blood and then with the yellow colour of serum. The dressing which is put on the wound is usually of a type which absorbs some of the ooze and if the dressing is comfortable there is no need to change it, provided the oozing is not so great that it makes the dressing wet. It may be worthwhile changing the dressing for a new one after a couple of days if there has been a lot of staining with blood and if you want to make the dressing look neat and tidy. It is often worthwhile smearing a small amount of antibiotic ointment along the line of the wound or simple Vaseline because this stops the next dressing from sticking and also helps to free up some of the crusts.

There are no hard and fast rules about when you can have a bath. As a general principle, it is not a good idea to soak the wound in a bath until it has sealed and healed so that water can't go into the wound. Different surgeons have different ideas about this. Exposure to water for a few minutes under a shower is probably a great deal safer than soaking in a bath and so I believe it is reasonable for somebody who has had abdominal surgery to have a shower on the third or fourth day and to use this opportunity to change the dressing then. Showers dilute your germs and wash them away; in a bath you are sitting in your own germs. If you are in doubt about it however, discuss the matter with the surgeon.

All skin wounds hurt at first. The small, circular wounds which are used to introduce the steel cannulae for the liposuction are very small and sting very little. They are usually covered with waterproof dressings and the two or three stitches used to close the wound are removed after a week or so.

The long abdominoplasty wounds which run across from one side of the lower abdomen to the other are often sore where the skin has been brought together quite tightly. This pain and tenderness eases off after a few days as the skin stretches.

6) **Infection**

Infection can occur in any surgical wound. Fortunately, the incidence of infection, i.e. the number of patients that suffer from it after cosmetic type surgery to the abdominal wall is very small. My personal preference is to give patients a dose of antibiotics at the time of the surgery because this reduces the risk of infection. Minor spots of infection around the stitches are quite common a week or so following the surgery and they occasionally crop up several weeks after the surgery when a stitch knot surfaces and irritates the wound.

Infection in any wound has to be treated seriously. It usually results in redness, tenderness, some swelling and eventually the formation of pus. If you notice that you are developing a localised pain which seems to be getting worse rather than better, and if you are not already on antibiotics then it is very sensible to contact your doctor immediately to seek further advice. It is possible that he may give you a course of antibiotics straightaway just in case your problem is due to infection.

It is very rare for infection to spoil the result of surgery, except that it may cause some widening of the scars because it sometimes interferes with the speed with which the wound heals.

7) **Bleeding and Haematomas**

Some oozing and bleeding within the wound is normal after any operation but if it is excessive it leads to a build up of fluid or clotted blood which is called a haematoma. Fortunately, a haematoma is seldom serious in the sense that it is never life-threatening but it will probably delay healing and may cause a swelling or a lump which can take several weeks to disappear if it isn't removed. If a haematoma is diagnosed it is common practice to arrange to take the patient back to the operating theatre to undergo a short general anaesthetic to remove the haematoma.

It seldom delays departure from the hospital but may be associated with a lot more bruising than would otherwise have been expected.

8) **“Collections”**

A collection is the ‘polite’ medical term given to a build up of body fluid which isn’t blood but is the yellow serum which is due to a lot of oozing from within the wound. The collection is located between the skin and the muscle. It can also be called a “seroma”. If the collection is left alone it may persist for a long time until it finally absorbs back into the body. It is sometimes worth sucking it out with a needle and syringe. If this has to be done it is usually completely painless but often has to be repeated. Collections form as a result of internal weeping when the wound surfaces fail to stick together quickly after surgery. There is seldom any reason to stay in hospital because there is a collection. It can nearly always be dealt with as an outpatient. Firm pressure with a girdle or corset may help to stop it from re-forming or from occurring in the first place. It is commoner in people who are overweight and so it pays to lose as much weight as possible before surgery.

9) **Numbness**

Some numbness in the skin is to be expected in nearly every case of fat suction or mini or standard abdominoplasty. Liposuction pulls on the nerves to the skin and damages them temporarily. An abdominoplasty operation will cut some of the nerves and will cause some permanent loss of feeling in the skin between the umbilicus and the pubic hair but this area of numbness tends to shrink in size with the passage of time. Fortunately, very few people find the numbness worrying.

In most people the loss of feeling is not troublesome in the early stages and patients only become aware of it a few days after the surgery. The feeling comes back slowly over a period of months and sometimes years and often patchily, but it is extremely unusual for people to actually complain about it in the long term.

10) **Suction drains**

When skin has been removed from the abdomen there is an extensive internal wound on the underside of the skin. Internal weeping, which forms a collection of fluid, is to be expected and so this excess fluid has to be removed in anticipation. This is done through one or two fine plastic tubes which are called drains. The internal wound forms fluid for varying periods of time. In some people it is only for a day or so. In others it is for up to four, five or even six days.

While the drains are removing significant amounts of fluid it is wise to keep them in place until the leakage appears to “dry up”. (Approximately less than 30 - 50ml in a 24 hour period.) Having a drain in place is hardly ever painful and removing them (sliding them out) is also very seldom uncomfortable.

Some patients often get upset about the idea of having a drain. In practice, most people hardly notice them after the first day and they are simply a nuisance because they tend to get in the way. Most people can cope with going home even when the drains are still in place and I encourage this because it reduces the time spent in hospital. The person comes back to the hospital or has the district nurse into their home to have the drain removed.

It is usually a good idea to apply a small amount of pressure with a cotton wool dressing to the exit hole of the drain for a few minutes once the drain has been removed. This helps to seal it off. While the drain is in place it is less important to wear a corset but once the drains have been taken out it may be worth having firm compression to the abdominal wall to prevent a collection from forming if the drainage volumes have been high.

11) Mobility

Any operation on the abdominal wall makes it less comfortable to walk around, bend or twist. After fat suction the abdominal wall tends to feel rather tender and after an abdominoplasty it tends to feel tight. Most patients find it more comfortable to walk in a slightly bent or hunch back position for a day or two. Fortunately, this discomfort lasts for only a few days and most patients are able to walk normally within a week.

There are a few unfortunate patients who experience a great deal of discomfort in the abdominal wall after liposuction alone. In some of these patients stronger pain-killers are required to help them get through this early period of tenderness.

12) Catheter

Patients who have had the standard abdominoplasty often find it very uncomfortable to get up to go to the lavatory or even just to sit up on a bed pan in bed to be able to pass urine, and so it is often helpful if they have a small catheter put into their bladder for the first 24 hours or so, so that they don't have to get up out of bed.

This means that the bladder is kept empty and the urine drained away comfortably and painlessly.

Some women don't like catheters and so this is a point worth discussing with the doctor and the nurses before having the operation. Removal of the catheter hardly ever hurts.

13) Sickness and Vomiting

A general anaesthetic has different effects on different people. Some unfortunately, feel very sick, others not at all. The anaesthetist will discuss this with you before your operation and will probably give you something during the operation to try and prevent you from feeling sick afterwards. Even if you are sick it is unlikely to cause any harm to the success of your operation.

14) Longer term problems

Appearance and feeling after liposuction

It is normal for the skin and abdominal wall to feel unusually hard or stiff in the areas which have had liposuction. This hardness and stiffness usually lasts for two to three months but then gradually softens over another three months or so until it is back to normal. If liposuction alone has been used, the skin may show some rippling or slight unevenness as the softening progresses. In the early stages this may be quite worrying but it nearly always smooths itself out in the long run. The area from which it is always most difficult to remove the fat is the part just around the umbilicus and this may still feel or look slightly more prominent than the rest of the abdomen for several months after the rest seems to have returned to normal. It usually settles down well enough in the long run.

Scars

The scars after an abdominoplasty are nearly always red to purple for several months but in most people they fade over a two to three year period and become much paler. If the skin closure was tight the tension causes the scar to stretch and to widen and may form a slight furrow. There is occasionally some slight swelling or bulging in the skin immediately above the scar for a few months but this usually flattens off with time, particularly if a firm corset is worn.

Hypertrophic scars

Some unlucky people (approximately 1 in 15) notice that their scar stays redder than usual and starts to swell up and become very stiff and often very itchy about two to three months after surgery. This is known as hypertrophic scarring. Fortunately, it is a type of scarring which settles down eventually but it may take another six months or even longer to do so, The most troublesome aspect of hypertrophic scarring is often the itchiness. The itchiness and swelling can be treated by injections of steroids if necessary but local anaesthetic is usually needed first because the injection can otherwise be very uncomfortable. The application of a special silicone gel is another painless way of getting the scars to soften but the application of the gel may be very tedious and inconvenient for the patient and many patients feel it is more trouble than it is worth.

Hypertrophic scarring has very little to do with the way in which the wound was closed by the surgeon and if you happen to be one of these unfortunate people who develop hypertrophic scarring, and if you already know you are one of these people, it is wise to discuss the whole problem with the surgeon first. A lot of patients who have cosmetic surgery to their abdomen have never had any surgery done before and so they won't know whether they have this potential problem.

Keloid scarring

Keloid scarring is one degree worse than hypertrophic scarring because it never disappears by itself. It is very unusual in white, Asian and Oriental people but is, unfortunately, quite common in people of African origin.

Keloid scarring needs special treatment if it occurs. People who know that they are liable to have this, because it has occurred elsewhere on their bodies, should discuss the matter very carefully before surgery because the type of surgery and the type of wound may have to be modified to take account of the potential problem. Occasionally the surgeon may choose to inject steroid at the time of the surgery in anticipation of the problem.

Exercise

In my experience, few people feel ready to take exercise within two weeks of surgery and most people don't try for a month or so. Fitness fanatics and keen joggers may do so two to three weeks after surgery. Using a position which avoids pressure or friction on the belly, sex can be resumed at almost any time.

Corsets/girdles

I have mentioned the wearing of corsets or compression garments several times. It is worthwhile trying to purchase something suitable from either a lingerie shop, Marks and Spencer, or even a sports shop if you want a ready to wear garment. My secretary will be able to give you the name of special pressure garment manufacturers from whom you can buy a tailored design direct. It is worth practising using it for a day or two prior to surgery so that you know what to expect, and if you think you have found one which is going to be comfortable it is probably sensible to buy a second spare one so that you can wash the first as often or as soon as you wish.

The corset can, of course, be taken off for baths, shows, sex, etc, but it is probably worth wearing it in bed at night, unless it is particularly uncomfortable.

Other problems

There are bound to be other things which I have omitted to mention. If in doubt, please ask.

---*---

*Written by Mr H P Henderson, FRCS
Consultant Plastic Surgeon*

HPH/EC

*Original information sheet written 1990's
(Revised December 2006)*

**Mr Henderson's Secretary: 0016 265 3043
Emergencies: 07971643177**