

# Plastic Surgery After Weight Loss

## Introduction

It is a tremendous achievement to have lost weight and then to maintain a new steady weight. Nowadays weight loss is not only done through careful dieting and exercise, but also through bariatric surgery, such as gastric banding, gastric sleeve or gastric bypass operations and weight loss medications such as the GLP-1 group (Ozempic<sup>®</sup>, Wegovy<sup>®</sup>, Mounjaro<sup>®</sup> etc). The benefits for your health and well-being are huge.

For some people (and depending upon the amount of weight lost) the unfortunate side effect of weight loss, is that once the excess fat disappears, the stretched skin does not shrink back correspondingly. This can leave unsightly excess skin and stretch marks in a variety of areas on the body. This excess skin can be very distressing to live with, can affect comfort, clothing fit and exercise and have irritation and sometimes even infections within the overhanging skin folds. Fortunately, plastic surgery techniques are available to address these problem areas.

Surgery following weight loss should be considered a journey, rather than a single procedure. For the reasons elaborated on below, it is usual to require more than one procedure, with possible additional revision procedures needed. If you are aware of this to begin with, your psychological approach will be more positive, and you will be better able to cope with the process. The end point of the journey is incredibly rewarding and transforms peoples' lives. A comprehensive understanding of the process makes the journey much smoother. We have therefore written this leaflet with the aim of informing anyone considering this type of surgery about the wider issues and nuances involved with post weight loss surgery as well as going into the specifics of different procedures.

Despite the wide range of operations available, it is important to take a step back before considering what may be the most appropriate procedure (or procedures) for you. First, it is vital to understand the effect of your initial weight gain and subsequent weight loss on your tissues, your skin and your healing ability. If you understand this, you will appreciate why surgery following weight loss differs from other plastic surgery operations even if on the same areas of the body. We have initially outlined some points that we feel are important to understand if you are planning to undergo post weight loss plastic surgery before discussing individual procedures.

## **What should I think about prior to my consultation?**

Before your consultation, you should think about what you are hoping to achieve from your surgery. Points to consider may include:

- Is my weight steady or am I continuing to lose weight as part of a diet or weight loss programme? If you are still losing weight or only just at your goal weight, it is better to postpone surgery until your weight has plateaued for around 6 months. This is especially important if you have had bariatric surgery (a gastric band or a bypass operation), in which case a longer period of being at a steady weight is recommended, as well as the involvement of a dietician. Please see below for a detailed explanation.
- Why am I thinking of having surgery at this time in my life? You should not consider having cosmetic surgery if you are going through any instability in your personal circumstances. This sort of surgery should be considered as a major life event, so you should only go ahead if you are mentally, as well as physically prepared.
- If you have not finished your family and are considering trying to become pregnant soon, any abdominal and breast surgery is best postponed until your family is complete.
- Why am I thinking of having the surgery at this time in my life? (You should not consider having cosmetic surgery if you are going through any instability in your personal circumstances.)
- If I am still on weight loss medications (GLP-1s), do I have a long-term plan for staying or coming off the medications and maintaining my weight once off the medications?
- Do I have any nutritional deficiencies that might affect my healing and recovery from surgery and can I optimise my nutrition ahead of surgery?

## **Nutrition and post weight loss plastic surgery**

Whether your weight loss was achieved through diet and exercise or by means of bariatric surgery or weight loss medications, for you to have lost weight, the energy you spent must have been more than the energy that you consumed (i.e. take in as food and drink). This imbalance is needed for you to burn away fat and lose the weight. During the period of energy imbalance your immune system and your wound healing ability are affected. Therefore, it is unwise to perform surgery if you are still losing weight (as well as the fact that your result will not be as good as it could be).

Once you have reached your target weight it is important for this to be kept steady for at least 6 months (longer in some cases). This allows the imbalance (of what goes in

compared with what energy is spent) to be levelled - i.e. for you to maintain a steady weight; the energy (calories) that you eat must equal the calories that you burn on a day-to-day basis. Once this balance has been achieved, your wound healing ability is improved, and the chances of a speedy post-operative recovery are increased.

Therefore, we recommend that all weight loss patients (especially massive weight loss patients after bariatric surgery) have held steady at their target weight for at least 6 months (sometimes 12 to 18 months) prior to their plastic surgery.

Some types of bariatric surgery also affect the absorption of nutrients from your gut. If you could be affected by this, it is important that you monitor your nutrition and supplement for any vitamin and mineral deficiencies.

Plastic surgery after weight loss is often large surgery with significant nutritional requirements for healing. We therefore recommend particularly that you consider nutritional supplementation in the lead up to surgery and in the early recovery period as well as ensuring that your protein and calorie intake is good. We carry supplements at Purity Bridge specifically designed to aid wound healing after surgery and recommend that you follow this supplement regime around the time of your surgery.

### **Weight loss and skin quality**

One of the side effects of weight gain and weight loss is a negative effect on skin quality. This can be seen by the stretch marks (which are thin areas of skin resulting from the breakdown of collagen links - the building blocks of skin) and the reduced thickness of skin. Unfortunately, once skin quality has been reduced in this manner, it cannot be improved. This must be considered when understanding what can be achieved through surgery: your body contour will be significantly improved, the excess skin will be removed, but the remaining skin will be the same skin that you started with, of the same quality. If the remaining skin had stretch marks before you had surgery, these will remain afterwards.

### **Weight loss and skin elasticity**

Tied in with skin quality is skin elasticity, and how the skin behaves and responds to surgery. Using the example of weight gain on your thighs; imagine you were wearing a pair of stretchy leggings, which were the equivalent to your skin. When you gain weight, these leggings stretch and increase in size (circumference); however, when you lose weight, although your legs may shrink down in size, the stretchy leggings stay at their stretched-out size or only partly shrink back as they have lost their elasticity. This is effectively what happens to your skin with significant weight loss, and the same analogy can be applied to other parts of the body. Furthermore, when other areas of the body are affected by

stretching for other reasons (such as a tummy that has been subjected to multiple pregnancies), the skin in these areas will behave similarly. Much like a balloon or elastic band that has been overstretched; once skin is overstretched, it loses its elasticity and capacity to shrink back down. Unfortunately, this is a permanent effect - even after post weight loss plastic surgery, the skin's elasticity will not improve (despite potentially removing large quantities of it). Therefore, even if your area of surgery is tight in the early post-surgical period, there will inevitably be skin relaxation in that area later due to your skin's elastic properties being reduced with your change in weight - your skin will not remain "drum tight". It is important to understand this, to have realistic expectations of your future post-surgical result.

### **Weight loss and wound healing**

As mentioned above, the effects of losing weight (and burning more energy than you take in) can affect wound healing. In addition, due to the reduced quality of the skin, and the skin thickness being reduced (because of stretching when being overweight) the wound healing ability of the skin is reduced even after your weight stabilising. Therefore, minor wound breakdowns, delayed wound healing and minor wound infections are more common in plastic surgery following weight loss than in other situations.

These issues are all surmountable but may require a period of dressings to certain areas of wounds or post-operative antibiotics to get things settled down and healed in certain cases. If you are aware of this possibility, you will be better placed to understand and cope with this situation should it occur to you following surgery. There are no guarantees of complication-free surgery in any area of plastic surgery, but in surgery following weight loss, the complication rates are higher. During your postoperative course you will be cared for and guided through any dressings or other requirements by your plastic surgeon and their specialist team, meaning that you are in the best possible hands to get you to your final result.

### **Scars and post weight loss plastic surgery**

Despite some of the problems outlined above, with time the scars from post weight loss surgery usually settle down very well indeed. All scars will go through a natural cycle of becoming red and thickened before they soften and pale. This process can take longer than normal in post weight loss plastic surgery, especially if there have been areas of delayed wound healing or infection of the wound. However, please be reassured that in most cases, the scars will fade to a pale colour, even if it takes a long time (over 2 years in some cases).

It is also important to be aware that the scars for post weight loss plastic surgery can be long. This is due to the extent of loose skin and laxity that develops after significant weight loss and therefore the amount of skin that needs to be removed and/or reshaped.

### **The need for revision surgery**

If you are considering surgery following weight loss, it is important that you understand the frequent requirement for revision surgery. This may be to “tidy-up” scars or irregularities such as “dog-ears” (this unfortunate term refers to puckering of skin at the end of the scar), or surgery to tighten up a related area of the body (such as the need to undergo a reverse abdominoplasty or upper body lift after a lower abdominoplasty). During your consultation, your plastic surgeon will outline the nature of the surgery they propose as well as the implications for revisions or further surgery. Most minor revision procedures can be carried out under local anaesthetic and will not usually be charged for (e.g. revision of the end of a scar). However, additional procedures that are operations in their own right will incur a charge (such as the examples of the upper body lift or reverse abdominoplasty given above). Please feel confident to have an open discussion with your plastic surgeon about these matters, as it is important that you know where you stand before embarking on your plastic surgery journey.

Despite the challenges outlined above, patients who have undergone post weight loss plastic surgery are some of the most satisfied of all plastic surgery patients. The positive impact on their lives because of their surgery can be felt every day. Clothes they wouldn't have dared wear beforehand become normal to wear, and their self-esteem and confidence is boosted significantly. It is also easier to exercise and particularly during hot weather, they no longer get sweating and skin irritation within overhanging skin folds.

### **Maintaining your surgical result**

Whatever procedure you undergo, for the reasons outlined above, over time there is a chance for a gradual relaxation of the skin and tissues beyond that anticipated. Therefore, any input that can maintain your result is highly desirable. The following are a few general rules to help to keep your post-surgical result maintained for as long as possible:

- Keep your weight steady by eating a healthy and balanced diet
- Regularly moisturise, especially your scars
- Undertake regular exercise, at least 3 times a week
- For abdominal surgery, maintain abdominal wall strength by exercise – sit-ups or Pilates on a regular basis are ideal for this. They will ensure your internal abdominal muscle support is maintained and reduce the chance of laxity developing – this may compromise the shape of your abdomen after surgery.

- Take up activities such as Pilates, to maintain overall body strength and muscle tone.

### **Plastic surgery operations following massive weight loss**

Surgery to improve body contouring after weight loss has advanced considerably over the last 20 years. Procedures continue to be refined for all body areas, and we aim to perform the safest and most reliable procedures that can offer the best results.

Procedures that are more frequently performed include:

Lower abdomen	Abdominoplasty (tummy tuck), fleur de lis abdominoplasty, 270 abdominoplasty, lower body lift (belt lipectomy), mons lift
Upper abdomen	Reverse abdominoplasty
Back	Upper body lift lower back lift, lateral thoracic lift, lower body lift (belt lipectomy), buttock lift
Breasts	Mastopexy (breast lift), augmentation-mastopexy (breast lift with implants), breast reduction (male and female)
Genitals	Labiaplasty
Arms	Brachioplasty (arm lift)
Thighs	Thigh lift
Face/neck	Face/neck lift, brow lift, upper blepharoplasty, lower blepharoplasty

Other procedures exist for other body areas as well as variations of the above procedures. However, those listed above cover most procedures performed. The next section of the booklet goes on to expand on the procedures listed above.

### **Summary of specific procedures**

Below is a guide regarding the more commonly performed procedures mentioned above. Further detail about the main procedures may be found in the specific procedure information leaflets. Of course, there is no substitute for a careful clinical assessment and explanation by your plastic surgeon, so please be aware that the information below is not enough on its own to make decisions about proceeding with surgery.

Your plastic surgeon will provide you with a professional and honest assessment and discuss frankly the areas that could be improved, as well as the limitations of any

procedure. In some cases, they will not recommend surgery, as it will not provide the correct or best solution to the issue troubling you. They may also recommend seeing an additional specialist such as a gynaecologist, weight loss surgeon, general surgeon, dietician or a psychologist in some circumstances.

## **Lower abdomen**

There are several operations described that can be used to improve the contour of the lower abdomen. All are variations on abdominoplasty (tummy tuck) that differ in scar pattern and extent of tissue removed (and extent of scar). They all include a scar that goes at least from hip to hip and a scar around the umbilicus (belly button). Each has its place and the best operation for you should only be suggested after careful clinical examination, discussion about the options and then an understanding of what is involved. None of the options is minor surgery, therefore a full comprehension of what is involved, the recovery and the possible risks is vital.

Broadly speaking, the abdomen can be addressed with a massive weight loss (or extended) abdominoplasty, a fleur de lis abdominoplasty, 270 abdominoplasty or a belt lipectomy (or lower body lift) as described below.

The differing scar patterns address the lower trunk in different ways. For example, the massive weight loss abdominoplasty only concentrates on the front of the abdomen, extending around to the side, so is suitable for those without skin redundancy and loosening on the flanks, the sides of the thighs and the buttocks.

The fleur de lis abdominoplasty gathers skin in from a horizontal as well as vertical vector, so can achieve a good contour around the waist, but at the expense of a vertical midline scar in addition to the usual lower scar (the final scar is shaped like an upside-down T).

The 270 abdominoplasty addresses the lower trunk almost all the way round except the central lower back area and will not only improve the contour of the front, but also of the outside of the upper thighs and the flanks. The scar will run from hip to hip at the front and around the umbilicus as well as around your back (but does not meet in the middle at the back – it runs 270 degrees around your body).

The lower body lift (belt lipectomy) is the procedure that most comprehensively addresses the lower trunk all the way round and will not only improve the contour of the front, but also of the outside of the upper thighs, flanks and the buttocks. The scar will run from hip to hip at the front and around the umbilicus as well as around your back.

Sometimes a specific buttock lift is incorporated into the lower body lift if a more rounded contour and/or correction of significant buttock laxity is desired.

The operations vary in the time they take and in the length of recovery. The table below summarises the key differences between the procedures:

<b>Procedure</b>	<b>MWL abdominoplasty</b>	<b>Fleur-de-lis abdominoplasty</b>	<b>270 abdominoplasty</b>	<b>Lower body lift</b>
<b>Strengths</b>	Removes tissue from the front of abdomen, which is the main issue	Good at contouring waist, as well as removing the maximum amount of tissue from the front	Addresses the trunk almost all the way around, including flanks, buttocks, outside of thighs	Addresses the trunk all the way around, including flanks, buttocks, outside of thighs
<b>Weaknesses</b>	Does not address flanks, back or buttocks; limited ability to contour waist in some patients; can be limited in addressing upper abdominal rolls in some patients	Vertical scar up abdomen must be accepted; does not address flanks, back or buttocks	Can be limited in addressing upper abdominal rolls in some patients Less change at the back compared to the lower body lift	Can be limited in addressing upper abdominal rolls in some patients
<b>Length of surgery</b>	3 hours	3-3.5 hours	3.5-4.5 hours	4-5 hours
<b>Hospital stay</b>	Day or overnight	Day or overnight	Overnight	Overnight
<b>Return to work</b>	3-4 weeks	4-5 weeks	4-6 weeks	4-6 weeks
<b>Return to exercise</b>	At least 6 weeks	6-8 weeks	6-8 weeks	6-8 weeks

As part of all these procedures, tightening of the abdominal muscles (rectus plication) is performed to help to optimise the final contour and to strengthen the abdominal wall.

This inevitably makes the abdomen feel very tight in the early postoperative period (rather than the skin being tight). Furthermore, all the procedures may be further enhanced with additional liposuction in certain cases, especially where there is a significant amount of fat remaining, along with the excess skin.

As your abdomen has been tightened significantly, your tummy will not be able to expand outwards after meals in the way you are used to. Therefore, you may feel tighter than usual after eating, as your stomach will only be able to expand inwards. This may result in you needing to have smaller meals than usual, whilst your body adjusts to its new shape. It is often a good idea to take some mild laxatives for a few days after surgery to soften your stools - this will prevent the need to strain and put further pressure on your abdominal wall. If you are having difficulty in getting to the bathroom after your operation, it may be necessary to insert a temporary urinary catheter, but we try to avoid this if possible.

### **Upper abdomen and back**

Surgery to the upper abdomen and back is usually reserved as a secondary procedure, following surgery to the lower abdomen. This is because it is not always needed after lower abdominal surgery. However, in some people, despite comprehensive surgery to the lower abdomen (and lower back in the form of a lower body lift/belt lipectomy) further surgery is required to address residual redundant skin. This needs to be assessed on an individual basis.

A reverse abdominoplasty is confined to the front of the torso, leaving a scar at the top of the abdomen, hidden underneath the breast crease. An upper back lift is similar but confined to the back. This scar may either be transverse ("bra line") or there may be two oblique (angled) scars to address the skin redundancy on the back. If there is skin excess on both the front and back, the two procedures may be combined as an upper body lift. A lateral thoracic lift may be used as a tidy up procedure or combined with a breast/chest or arm lift to tighten the skin on the side of the chest wall.

### **Breast surgery**

Depending on the effect of losing weight on your breasts, several options exist to improve their shape. These include breast lifting (mastopexy), breast lifting with an implant (augmentation-mastopexy) and breast reduction. The best procedure for you will be determined after considering your wishes and a careful examination. Due to the reasons outlined above regarding skin and tissue quality, it is usually preferable to avoid using a breast implant if possible (or use a small implant if one is needed). Large breast implants are heavy and the support they need to maintain their proper position is absent in the tissues or skin of most people after massive weight loss. Furthermore, in time, a heavy

implant will stretch the tissues and possibly result in a low-lying implant with emptiness in the upper part of the breast.

Whether the breast is being lifted, lifted and enlarged or reduced in size, the nipple usually needs to be moved to a new, higher position. This will result in scars around the nipple, vertically down to the breast crease, and usually also transversely in the breast crease. Whilst there are certain limitations in the massive weight loss setting, broadly speaking, the procedures are like those that are used in the non-weight loss situation. Therefore, please see the individual booklet on the specific breast procedure you are interested in for comprehensive information about the procedure.

### **Surgery to the male chest**

With massive weight loss, the male chest may change in several ways. The nipple often lies too low; there is excess skin and there is loss of definition of the normal surface landmarks of the chest. The male chest can be treated in several ways, but most techniques will require a scar around the nipple/areola and a transverse scar either in the crease below the breast, along the line of the lower pectoralis muscle border or either side of the nipple/areola. Occasionally it may be possible to leave a vertical scar down the side of the chest wall alone. If the nipples must be moved a long way or if the pedicle (tube of tissue to move the nipple on) is bulky, sometimes removing the nipples, and stitching them on as grafts is required. Whilst there are risks that there can be wound healing problems (and at worst, failure of the nipples to “take”), this can be a far safer technique in certain situations than others.

The scar pattern and surgical technique that will be required can only be assessed after a careful clinical examination. The length of surgery varies, depending on the amount of skin excess and technique needed, but usually takes 2-3 hours. It is usually done as a day case procedure.

### **Surgery to the arms (brachioplasty)**

Following massive weight loss most people are left with a significant amount of redundant skin on their upper arms. This can continue into the armpit and even onto the side of the chest wall. Less commonly, it can also continue down below the elbow into the forearm.

Techniques to reduce this skin require a carefully tailored approach. The resultant scar goes from the elbow, along the inside of the arm, into the armpit, and sometimes down the side of the chest wall. The surgery takes around 2 hours and is usually done as a day case procedure.

### **Surgery to the thighs (thigh lift)**

The skin of the thighs usually stretches considerably with weight gain but does not shrink back down again after weight loss. This leaves redundant skin on the inner thighs that can hang down and drape over the knees. Whilst it may appear that the excess skin can be pulled up (like a pair of trousers), it needs to be drawn in to the inside of the thigh, leaving a scar going from knee to groin, on the inside of the leg. Sometimes this scar will need to be continued along the groin or buttock crease, depending on the amount of skin excess. Thigh lifts in the massive weight loss patient may take 2-3 hours. They can be day case procedures although some patients prefer an overnight stay in hospital.

### **Surgery to the face and neck (facelift or neck lift)**

Although it appears that the issue is one of loose skin alone in the neck and lower face after massive weight loss, the problem is also one of loose muscle and supportive tissue (known as the SMAS) and loss of volume in the fat pads of the face. Therefore, to achieve an aesthetic and long-lasting result, the internal tissues must be repositioned and supported, prior to the skin being carefully re-draped and reduced. This is the principal behind all facelifts and neck lifts – please see the booklet on facelifts and neck lifts for a comprehensive explanation about face and neck lifting. Facelifts may take 4-6 hours in the massive weight loss setting and may also require an additional scar under the neck to tighten the neck muscles from the front as well as from the sides and/or reduce the submandibular glands which can drop and become visible. This can be day surgery or may need an overnight stay in hospital.

### **Surgery to the periorbital area (eyebrows, upper & lower eyelids)**

With the weight loss changes in the face, eyebrows can drop as well and the changes in volume/facial fat can also affect upper and lower eyelids. Brow lifts and/or upper blepharoplasty (eyelid lift) and/or lower blepharoplasty may be needed to treat these issues. These are usually day case procedures unless combined with a bigger face and neck lift procedure.

## **THE CONSULTATION**

During your consultation, we will endeavour to put you at ease and start by finding out about your motivation(s) for seeking post weight loss contouring surgery. In addition to clearly establishing the various areas of your body that you may be unhappy with, we will take a thorough medical history, including your weight loss journey, any history of high blood pressure, diabetes, other medical conditions, smoking or nicotine use and records of any medication you may be taking and any allergies you may have.

PI037 Plastic surgery after weight loss

## **Multiple procedures – prioritisation & combination surgery**

After significant weight loss, patients frequently have several areas of concern where they want loose skin and sagging addressed. Understandably, they also want to minimise the number of surgeries that they undergo as well. We will ask you to tell us which body areas bother you that you would like treatment of and to prioritise them in order of importance or level of distress that they cause you. A good rule of thumb is to start with the procedure treating the area that bothers you most.

If you have several areas that you wish to have treatment of, we must decide which procedures can be done at the same time (combined procedures) and which should be done separately or in a second or third stage. The advantages of combining procedures are that you will undertake fewer overall sessions of surgery and recovery and it is also more cost effective. But not all surgery combinations work well together. We look at the following in this situation:

- Order of importance to you (which areas cause you most distress or which areas you would like treated first)
- How long the surgery will take for the combination of procedures (longer surgery carries more risks such as increased risk of thromboembolism (clots in the deep veins of your legs that can travel to your heart and lungs))
- Is the combination compatible with a good recovery? For example, facelift and abdominoplasty are not a good combination to have together as you should keep your head elevated after a facelift but need to stoop forward after an abdominoplasty. Abdominoplasty and thigh lift are also not a good combination as the recovery together is difficult for mobilisation and for wound healing.
- How much can you tolerate during the recovery? The more procedures that are done together, the more body areas you will have healing afterwards needing dressings and pain relief, more help you will need during the recovery period and the higher the likelihood of having some wound healing issues.

## **Photography**

We always take pre-operative photographs from a variety of standardised positions. These can be referred to with you during your consultation to help plan your procedure, as well as forming an essential part of your medical records. Your consent for the photographs will be obtained.

## **THE SURGERY PROCESS**

### **Before surgery**

We will arrange an appointment with our specialist nurses to help prepare you for surgery. They will discuss how to prepare beforehand, what to expect afterwards and how to look after yourself in the early recovery. You will be fitted for a post-surgery bra or garment as needed for your specific procedure(s). If your surgery is under general anaesthesia (usually the case for post weight loss plastic surgery), you will also have a preassessment with the hospital where your surgery is planned or combined with your specialist nurse appointment if your surgery is at Purity Bridge. We will also send you surgery consent forms to complete.

### **Weight loss medications & general anaesthesia**

If you take weight loss medications such as GLP-1s (e.g. Ozempic<sup>®</sup>, Mounjaro<sup>®</sup>, Wegovy<sup>®</sup>), it is important to be aware that they can cause gastric paresis or slowing of the emptying food from your stomach. This affects safety when undertaking general anaesthesia. These medications are relatively new so anaesthetic protocols are still being established. However, our anaesthetists may request that you stop your GLP-1 medication up to two weeks before surgery. If you are in any doubt about this, please contact us to confirm what is needed in your case.

### **What happens when I get to hospital or clinic?**

When you arrive at the hospital or clinic, a nurse will go through the health checks needed on the day of surgery. You will be asked to change into a hospital gown in preparation for surgery. Your anaesthetist will also visit you for an assessment prior to your general anaesthetic (going to sleep for your procedure).

### **Do I see my plastic surgeon before my operation?**

You will always see your plastic surgeon before your operation. We confirm the surgery plan and make sure you have no unanswered questions or concerns. Once you have confirmed you are happy to go ahead, we will ask you to sign a consent form unless you have done so already. We will then carefully draw important markings on the surgery area(s) in planning for your surgery. We may also take clinical photographs of your markings for your medical records.

### **What does the operation involve?**

The procedure(s) is performed under a general anaesthetic (with you asleep) and may be a day case procedure or planned with an overnight stay in hospital. You will be given a time to arrive at the clinic or hospital, and you should be fasted for at least 6 hours before  
PI037 Plastic surgery after weight loss

surgery. This means that you cannot eat or drink anything for 6 hours before your operation. You may, however, drink water during this time up to the specific time that you are instructed to.

### **What can I expect after surgery?**

Although the specific postoperative instructions will vary from procedure to procedure (or combination of procedures), below is an outline of the principles about postoperative care in the post weight loss plastic surgery patient.

Following surgery you will be encouraged (and helped!) to get out of bed, usually later the day of surgery or at the latest the following morning depending on the procedure(s) you have had. If you have had surgery to your abdomen, the bed will be bent in the middle, so your hips and knees are as flexed as possible to take the tension off the wound. Invariably, you will walk bent over as your abdomen will feel tight - it is important not to try and straighten up during the first week as this may put undue tension on the wound. Your posture will improve over the first week or so after surgery as your body adapts to its new shape.

No matter what procedure you have had, frequent short walks and “pottering around” are ideal to get the circulation flowing, which minimises the risks of blood clots (deep vein thrombosis, or DVTs). Plenty of fluid (drinking lots of fluids) is encouraged, again to improve your recovery and minimise the risks of DVTs (please see the final section for more information). In addition, you will have compression stockings on your legs that will have been fitted prior to surgery - it is vital that you keep these on and continue to wear them for 2 weeks after your operation. Compression stockings are another factor that have an important role in minimising the chances of developing blood clots in the legs. You may also have pneumatic calf compression pumps fitted after surgery that will stay on until you get out of bed.

During your recovery in hospital, the nurses will ensure that your postoperative garment fits properly if required, and you are comfortable taking it off and putting it back on by yourself, in preparation for discharge from hospital. If you have had surgery to your breasts, it is important to wear a supportive post-surgical bra. This should be always worn, apart from showering, in the 6 weeks after surgery.

### **When will I leave hospital?**

Your surgery may be planned as a day case surgery (going home later the same day) or if more extensive surgery e.g. combined procedures or lower body lifts or you have certain medical conditions, an overnight hospital stay may be planned. If used, surgical drainage tubes are usually removed the day after surgery. Some people produce more fluid than

others into their drains. If you are producing a lot of fluid, your plastic surgeon may discharge you from hospital with your drains still in, with a plan to take them out in another day or so. Should this be necessary, you will be advised thoroughly on how to look after your drains at home.

Clothing tops that zip or tie at the front are easier than tops that need to be pulled on over your head. Looser bottom clothing that is easy to pull up or down is also better. Your surgery area(s) will be checked before discharge and if any additional instructions or aftercare are needed, this will be explained to you.

### **What should I do when I get home?**

Upon leaving the hospital or clinic, a series of outpatient appointments will be made for you with our nurses over the first 2 weeks for suture removal, wound checks and recovery checks. (See example schedule further down) and then with your plastic surgeon at 4 to 6 weeks. We have also put together a general list of 'Dos and Don'ts' after post weight loss plastic surgery for you to follow. [Specific procedures may come with additional instructions relevant to their recovery.]

### **Dos and Don'ts after surgery**

There are several things that you can do to help speed up your recovery from surgery:

- Once you get home, you need to achieve a balance between taking things easy, but not lying down and doing nothing, as this may increase the risk of some complications. As you recover, you will be able to increase the amount you do.
- You must continue to wear the post-surgery bra or garments day and night for 6 weeks, taking it off for half an hour to one hour per day for showering.
- After surgery the wounds will have been dressed with surgical tape. This is splash-proof and shower-proof (but not bath-proof). You will be able to shower from the day after surgery facing away from the shower hose (so as not to soak the tapes directly), and pat the tapes dry with a clean towel, kitchen towel and then allow to air dry or you can use a hairdryer on a cold setting to dry them.
- After abdominal procedures, the umbilicus (belly button) is a common site of mild inflammation and therefore it is advisable to remove any dressing prior to showering and gently shower into the belly button itself every day. It must then be carefully dried thoroughly before replacing a simple dressing. This will help reduce the risk of infection developing in this area. If it is not dried properly (aiming for it to be "bone dry") wound healing problems can result.
- You should take short walks, ideally accompanied by someone, in case you feel unwell at any time.

- Sleep on your back, ideally elevated with an extra pillow or two. A triangular pillow can be helpful for this.
- Avoid smoking, alcohol and stress, as these will all hinder the healing process.
- Analgesia or pain relief is often required at the beginning to manage the discomfort - initially with codeine-based medicines, and then paracetamol. Please follow our instructions regarding painkiller usage.
- It is important to drink plenty of fluids and eat a balanced healthy diet.
- Avoid aspirin, as this can increase your bruising and bleeding into the tissues.
- If sleeping is difficult after surgery, please let our specialist nurses or your plastic surgeon know so we can help and advise you about this.
- Generally, visible swelling and/or bruising is present for about 2 weeks. The swelling increases over the first 48 to 72 hours following surgery, stabilises, then generally subsides slowly, but can take up to 3 to 6 weeks to settle to discrete levels. The swelling and bruising drifts down from the surgery area and may appear below or to the side of the surgery area over the first 2 weeks and often one side can be more bruised and swollen than the other. You need to be patient and give yourself time to heal.
- In addition, most patients experience a roller coaster of emotions, with good days and low days. It is quite normal to have the occasional day where you think: “what have I done?” and experience feelings of guilt and low self-esteem. It can often take some time coming to terms with the “new you”. Fortunately, this passes quickly, especially once you resume your normal daily activities and start going out a bit more.

Over the first week you will start to feel much more comfortable, and the pain will continue to subside.

### **How to wear your bra or garments**

Your post-surgery bra and/or garments should be firm and supportive without being tight or very uncomfortable. When putting a bra on, you should try and rotate your breasts towards the middle of your chest, so the bra helps to support them in a position that pushes them together slightly. This aims to minimise the tension on the skin in the central chest area, to avoid a tenting effect of the skin being pulled up between your breasts. Wearing your bra correctly will help to give you the best cleavage possible. Care should be taken with abdominal garments that they do not ‘roll’ and cause a tight band across your middle. Similar care is needed for leg and arm garments.

### **What is the recovery period?**

This varies depending on the specific procedure or combination of procedures that you have had and how strenuous your work and lifestyle are. As a general guide, you will usually be able to return to sedentary activity (i.e. an office job or light duties) at 2 or 3 weeks after breast or arm surgery and 3 to 4 weeks after abdominal, thigh or face and neck surgery depending on how you are feeling. You should not feel reluctant to take the painkillers that you have been sent home with if you have pain – there is no need for you to be in significant discomfort. For the first 2 weeks you will need to take it easy, and between the 2 week and 6 week period, you can gradually build up your activity.

If you have areas of delayed or problematic wound healing, there will be some delays in returning to certain activities.

### **How long before daily activities may be resumed?**

You should avoid all heavy physical activity and contact sports for 6 to 8 weeks following the surgery to prevent damage to your surgery areas. Driving should be avoided for 2 to 4 weeks. Light exercise, such as gentle sessions on an exercise bike can be started around 4 to 6 weeks. Starting any earlier than this may result in more swelling to the area around your surgery.

### **How can I achieve the best possible scars?**

At around 2 or 3 weeks after your operation, regular daily moisturising and massaging of the scars is important to help the scars to soften and mature as quickly as possible. If you have been asked to keep your tapes on for 4 weeks, then the scar massage should start after this time. The massage should be done twice a day or more once your tapes have been removed, until any redness disappears from the scar (which may take up to a year in some people). There are several creams and oils that may be used e.g. vitamin E cream, but the most important thing is to use an unperfumed product initially to avoid irritation of the scar.

In addition, silicone products (gels and tapes), which are available at Purity Bridge and most pharmacies, are an excellent additional means of ensuring good scars. These products are applied directly onto the scars and should be used for as near to 24 hours a day as possible. They will need to be used for several months to have a good effect.

### **Can anything help the swelling and general recovery?**

Following surgery some people experience tingling or occasional shooting pains due to the nerves regrowing. In addition, the surgical area may be swollen for several weeks. Deep tissue massage (lymphatic drainage massage) can be used to help relieve some of

the discomfort and continued swelling that may be experienced in this area. This can be booked with our therapist at Purity Bridge, and we recommend that you include this in your recovery plans.

### **How soon after the procedure may I have sexual intercourse?**

Ideally you should wait until 4 to 6 weeks after surgery before having sexual intercourse, to minimise the risk of damage to the area of surgery. Please ask your plastic surgeon or their nurse, if you are uncertain.

### **Time for shape to settle**

It can take around six months (sometimes longer) for shape to fully settle after post weight loss plastic surgery. Your tissues will be settling into their final position over this time and swelling will be resolving. Some types of surgery take longer than others to reach their final position.

### **Summary of typical timeline following operation**

We have put together an example timeline on the following page of recovery milestones and follow up appointments after post weight loss plastic surgery. Your individual schedule can vary from this, but it will give you a good idea of what to expect in the early recovery.

## Follow up and recovery timeline

<b>Day of surgery</b>	Review in Purity Bridge or the hospital by your plastic surgeon for surgical planning and surgery itself  Postoperative review
<b>Day 1 after surgery (if staying overnight)</b>	Review in hospital by your plastic surgeon and discharge home  Surgical drains removed if used  Gentle shower and hair wash with care of tapes
<b>Week 1 after surgery</b>	Nurse appointment to check on wounds and recovery
<b>Week 2</b>	Nurse appointment to check on recovery and removal of stitches if needed  Tapes will be replaced if needed
<b>Week 3</b>	Start to moisturise and massage wounds if healed (should be continued until scars fade)
<b>Week 4</b>	Gentle low or no impact exercise may start  May start to drive if wounds all healed
<b>Week 4-6</b>	Review with your plastic surgeon
<b>Week 6</b>	Exercise/heavy physical activity may gradually be started if your plastic surgeon agrees after their review with you  May stop wearing post-surgery bra and/or garments
<b>Beyond 6 weeks</b>	Longer term follow-up appointments will be arranged by your plastic surgeon to ensure you achieve the best possible outcome

## **SIDE EFFECTS AND POTENTIAL COMPLICATIONS**

Before you decide to undergo post weight loss plastic surgery, it is important that you are informed of the potential risks, complications and side effects. Complications may occur even with the best surgical care. For this reason, it is crucial that you carefully read and understand the following section.

After post weight loss plastic surgery, there are side effects that are commonly experienced, as detailed below. In addition, unwanted and unforeseen complications may also happen. These too are discussed below.

### **Commonly experienced side effects after post weight loss plastic surgery**

#### **Swelling**

This is normal following this type of surgery and reaches a maximum around 3 days following surgery before starting to settle down. Noticeable swelling usually lasts 3 to 6 weeks (occasionally 6 to 8 weeks or more in some patients) but it will be reducing gradually after the initial increase during the first week. Commonly, the swelling subsides at different rates on each side, which is quite normal and nothing to worry about. The final residual swelling can take 6 to 12 months to fully resolve.

#### **Alteration in skin pigmentation (discolouration and bruising)**

Bruising usually comes to the surface within a few days and then gradually resolves over 2 to 3 weeks. Very occasionally extensive bruising can take many weeks to totally resolve. These problems are more often seen in patients with thin, hypo-pigmented and transparent skin. Patients with darker complexions should be aware of the possibility of residual brown pigment being left behind if the bruising takes a long time to settle. Arnica may be helpful to settle bruising quicker.

#### **Loss of or increased sensation**

It is usual to have a reduction in skin sensation after post weight loss plastic surgery. This can particularly affect the central and lower abdomen, the central breast area including nipples and in facial surgery, the cheeks, ears and neck. Feeling will usually return over a period of 3 to 12 months but can take longer. Unusual sensations can be experienced while skin sensation is returning. On rare occasions sensation can be increased and sensitive and this will slowly return to normal over a period of weeks to months.

## **Time for internal abdominal organs to adjust**

Usually, it will take a few days for your bowel movements to return to normal after abdominoplasty or similar body contouring surgery. You may notice also that you feel full quicker than usual. It is important not to become constipated during this time as this will put additional pressure on your tummy and will be uncomfortable. This normally resolves in the early stages of recovery. Occasionally, your bowel may take longer than usual to return to working normally while it adjusts to the new tighter abdominal wall.

## **Complications**

### **Early complications (within the first week of surgery)**

#### **Bleeding (haematoma)**

Although extreme care is taken to minimise bleeding, occasionally a blood vessel will start to bleed after the operation producing a swelling or collection of blood (haematoma). The haematoma is usually noticed within the first 24-48 hours after surgery and usually requires further surgical exploration to drain the collection of blood and stop the bleeding. Untreated, a significant sized haematoma can affect healing or damage the overlying skin and affect the quality of your result. Very occasionally a blood transfusion is needed as well as treating the haematoma. Disclosure of all medications and supplements to us before surgery is important as some can increase bleeding and bruising after surgery. If there is any suggestion that bleeding or a haematoma has occurred after surgery, you will need to go back to the operating theatre to have the bleeding stopped and the surgery area washed out to evacuate the collected blood. Signs that a haematoma is developing include: the filling up of your drain bottle with blood, swelling of the surgical area, pain on one side and the development of severe bruising over the site of surgery.

#### **Infection**

Rates of severe infection after post weight loss plastic surgery are low, but if an infection develops it must be taken seriously. If this does not resolve quickly, you will require further surgery to wash out the affected area and/or remove unhealthy tissue. In severe infections, tissue may be lost. This can result in contour irregularities, poor scarring, indentations and the need for future revision surgery. Sometimes dressings are needed for a long time in this situation.

### **Blood clots**

Blood clots in the veins of the legs (DVT - deep venous thrombosis) may occur after post weight loss surgery particularly of the abdomen and lower body or in long combined surgeries. Important preventative measures are taken (compression stockings, pneumatic calf pumps and at times blood thinning injections while in hospital) and why we encourage early gentle mobilisation. You should continue to wear the calf compression stockings for 2 weeks after discharge from hospital. If a DVT does develop, you will need investigations and treatment as appropriate. A pulmonary embolus (PE) describes a blood clot that has broken off from the DVT and lodged in the blood vessels in the lungs. This can be serious (at times, fatal), and again, appropriate investigations and treatment are instigated should this be suspected after your operation.

### **Damage to underlying structures**

Post weight loss surgery is usually carried out on the surface skin, fat and muscle layers of the body. Very rarely, deeper tissues such as the bowel or bladder in the abdomen or nerves in the face are damaged in this type of surgery. In the unlikely event that this should happen, we would take steps to prevent or repair any damage. This may involve antibiotic treatment to prevent infection and involvement of a specialist colleague such as a general surgeon to assess or treat any internal damage – this might require transfer to another hospital for the further treatment.

### **Intermediate complications (within 6 weeks of surgery)**

#### **Delayed wound healing**

As described above, wound healing in someone who has undergone massive weight loss is not usually as speedy as normal. It is reasonably common that the wounds take longer to heal than in others: this may also be compounded due to having had a mild infection of the wound, due to a reaction with the stitches or from “overdoing it” straight after surgery. Inadequate or poor nutrition also delays wound healing. Mostly this is an inconvenience, which can be managed with dressings as an outpatient. Occasionally it can lead to a more severe infection developing as described above or a return to theatre for further treatment.

#### **Suture spitting**

As described above, stitches (sutures) that are designed to dissolve sometimes do not dissolve as quickly as they are meant to. In these situations, there is a chance that they can work their way out of the wound and appear as sharp prickly filaments, occasionally

with a surrounding area of redness. Should this occur, it is nothing to worry about - any sutures that are spitting out of the wound can be removed in the clinic, and the wounds should then heal over these areas uneventfully. If not dealt with, it can result in a localised infection.

### **Seroma**

Normally wound fluid stops being produced by the body shortly after surgery. Sometimes, the body continues to produce this fluid for some time, and the fluid can accumulate in the surgery site, known as a seroma. If this happens it may be uncomfortable and there is a chance that the fluid can become infected. Should you develop a seroma, it may be necessary for it to be drained. This involves a fine needle being passed into the area and the fluid sucked out. The aspiration may need to be repeated on more than one occasion depending upon your situation and rarely may need further surgery to resolve it.

### **Skin loss (necrosis)**

Uncommonly loss of some of the skin that has been lifted and moved during the contouring surgery occurs. This can include the nipple in breasts or the umbilicus (belly button) in abdomens. If this occurs, it is usually due to problems with the blood supply to the skin or infection. Should you be unlucky enough to have this happen to you, it may mean dressings and wound care for a longer than usual period or in more severe cases further surgery. This may result in a poorer scar than usual and sometimes needs surgical procedures to treat and/or reconstruct the missing tissue. The risk of this problem is significantly increased in smokers or nicotine use of any kind, so you are always advised to stop smoking in advance of any planned post weight loss plastic surgery and during the recovery period.

### **Fat necrosis**

In the same way as there may be some trouble with the blood getting to the skin, nipple or umbilicus to keep it alive, occasionally the same may happen to the fat in the areas of surgery. If this happens a pocket of fat may die – this is known as fat necrosis. If this happens to a small degree, it may just present as firm lumps under the skin. These will usually settle with time and massage. If you have more significant fat necrosis, you may produce an oily discharge from the wound. Depending on the degree of fat necrosis, this may either be managed with dressings and wound washouts in the outpatient setting, or if it is more severe, it may require further surgery to washout the surgery site and can affect final shape and contour. In this worst-case scenario, several operations might be required to get you healed (refer to the section on infection above).

## **Late complications (more than 6 weeks from surgery)**

### **Asymmetry**

Everyone has a degree of asymmetry between right and left halves of the body. Sometimes certain asymmetries that were present, but less noticeable pre-operatively are revealed after post weight loss surgery e.g. your waist being higher on one side than the other or more fatty tissue on one side than the other or the umbilicus not being exactly midline in the centre of your abdomen (more to one side than the other), differences in breast size or shape or facial asymmetry. It is important to be aware of this possibility prior to undergoing surgery. Regarding the scar, although every effort is taken to make the scars as symmetrical as possible, scars often slightly different on each side. This too must be appreciated prior to undergoing surgery. Further surgery is sometimes needed.

### **Scarring**

Surgery scars will fade, but this can take up to 1-2 years. Until then scars are often red and firm. As described above, regular scar massage and moisturising is important to help the scars mature and settle down as quickly as possible. Sometimes stretched, tender or lumpy scars can occur. Hypertrophic or keloid scars can occasionally occur – these are thickened and lumpy scars that are more common in people of Asian or Afro-Caribbean descent. The scar usually sits very low at the bottom of your abdomen but sometimes can be pulled higher in areas due to differences in tissue elasticity, tension or scarring. Small asymmetries in scar level or thickness must be accepted as part of the normal healing process.

### **Recurrence of loose skin or laxity**

As your recovery takes place, your tissues (skin, muscle) gradually soften. This is a normal part of recovery. In some situations, a degree of recurrence of lax or overhanging skin may occur. This is more likely in thin or very stretched skin with poor tone or when surgery has taken place after significant weight loss. If you have a lot of stretch marks, it is likely that not all of these will be able to be removed during your contouring surgery. The skin tone in stretched skin such as skin with stretch marks is low and can result in a degree of loose skin or irregularities in the areas where the stretch marks remain. Sometimes further surgery is needed in these situations e.g. a reverse abdominoplasty after an abdominoplasty.

### **Unhappiness with shape**

After large weight gain followed by weight loss, there is usually more lax skin and a larger area than usual affected when looking at contouring or lifting surgery in patients who have had weight loss compared to those who have not had this extent of body change e.g. PI037 Plastic surgery after weight loss

women having a breast lift or abdominoplasty after pregnancy or a facelift due to the effects of ageing alone. It is harder for your tissues to hold a firm and lifted position and to hold a firm shape after significant weight changes (up and down) compared to someone who did not have this. It is important to understand this so that you have a realistic expectation of your end result.

### **Chronic pain**

Occasionally patients suffer from chronic pain after body contouring surgery. This is not always predictable or easily treated. It is more likely to occur if you suffer from severe or complex pain prior to your surgery. Further surgery or referral to a pain specialist may be indicated in this situation although it must be appreciated that there is not always a surgical solution to chronic pain.

### **The sub-optimal result**

Despite removing, repositioning and tightening the amount of tissue planned at post weight loss surgery, some patients will feel their result is not exactly as they were hoping it would be. For example, this could be due to residual fullness in the upper abdomen, or excess tissue around the flanks or a stretched or puckered scar or recurrent sagging of breasts or of skin in the neck. The limitations of these procedures along with skin changes after significant weight gain followed by significant weight loss mean that it may be necessary to undergo further procedures to improve the surgical result. These further operations will incur a further cost in most situations as more could not have been done at your original procedure and the laxity is due to failure of your tissue to hold the contour. Examples of further surgery include scar revision, reverse abdominoplasty, liposuction, flank lifts, back lifts and surgery to the mons pubis area. You will be spoken to frankly at your initial consultations to discuss what limitations post weight loss plastic surgery may have in your specific circumstances, and which type of surgery best fits your body and surgery goals. It is crucial that you know what you can (and cannot) expect from post weight loss plastic surgery prior to undergoing surgery.

## **CONCLUSIONS**

Overall, most patients are delighted with the results of their surgery. Regarding surgery to the body and limbs, patients find they can wear clothes that they would never have dreamed of wearing beforehand (or could never have worn) and they can change their style of dress to show off their shape. Those who have had face and neck lifts look and feel refreshed and brighter. The physical side-effects of excess and overhanging skin are also relieved. People who have had post weight loss plastic surgery have a significant

boost to their confidence and are less self-conscious about their body, having an overall improved body image.

Surgery, however, is a significant undertaking and it is important to have read and considered all the information presented in this booklet in addition to your consultations and specific procedure information with your plastic surgeon prior to embarking on your surgical journey.

