# WEIGHT LOSS SURGERY BOOKLET

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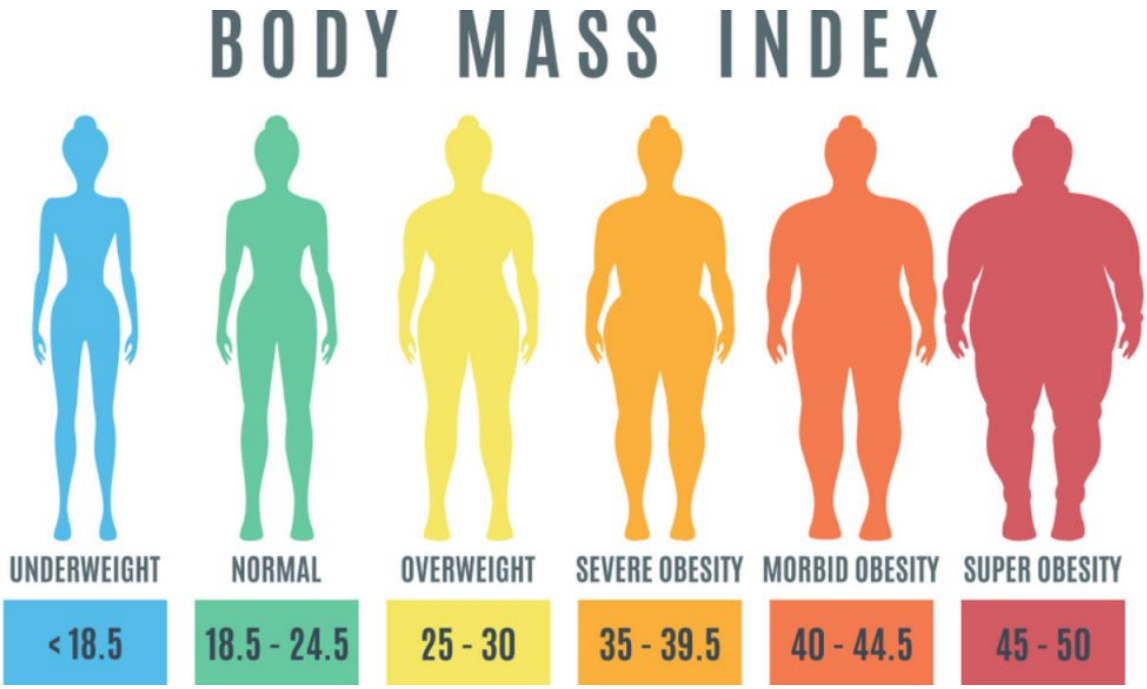

## Introduction

I wrote this booklet about weight loss surgery to help my patients understand what it is, what different options are available, what is involved including the risks and benefits and to describe the journey for patients. I want my patients to be as knowledgeable as they can be, as this helps in joint decision making.

But I have to start by saying that weight loss surgery is just a tool not a magic bullet quick fix. If you don't commit to changing your lifestyle then there is no operation that will work long-term. Weight loss surgery requires commitment. But if you do change your lifestyle, in terms of what and how you eat and how much exercise that you do, then all bariatric operations are associated with significant and sustained weight loss. It doesn't turn you into a 'model' but you will become a lighter and healthier version of you.

## Weight Loss Surgery

Weight loss surgery, obesity surgery, metabolic surgery or bariatric surgery all relate to operations that patients can 'use' to assist with weight loss when diet, exercise and/or medications fail to help them. This does not include cosmetic operations such as a tummy tuck (abdominoplasty) or liposuction.

My patients have often been on a rollercoaster of diets and exercise plans for most of their lives. It is not unusual to have had periods of significant weight loss but to have found it difficult to keep this weight off. This may have affected your physical and/or mental health. Obesity is a major health issue in many countries including the United Kingdom (UK). We know that around 6% of all deaths in the UK are related to obesity and that being obese shortens people's life expectancy. The greater the weight you carry and the length of time that you carry this, the greater the risk of health problems.

Obesity is associated with health problems such as:

- Type 2 diabetes
- Heart problems such as high blood pressure (hypertension)
- High cholesterol/triglycerides/lipids
- Obstructive sleep apnoea
- Polycystic ovaries syndrome
- Osteoarthritis and other joint problems
- Infertility

- As many as 13 different cancers are associated with obesity: such as breast, colon, uterine and ovarian, oesophageal, gastric, hepatic, pancreatic, and thyroid cancers

We know that weight loss surgery can prevent, improve or reverse some of these conditions and improve quality of life and increase life expectancy.

## Criteria

Weight loss surgery is incredibly safe but it is still a serious option so I feel that you should have tried your best to lose weight and keep this off with other methods before being considered for surgery. These would include changing habits, slimming clubs, General Practitioner (GP) or hospital based weight management programmes or trials of medication.

I use the following criteria in choosing for patients for weight loss surgery, these are based on the UK National Institute of for Health and Care Excellence (NICE) criteria:

1. Body Mass Index (BMI)>40 kg/$m^2$
2. BMI>35 kg/$m^2$ with at least one obesity related illness such as type 2 diabetes or obstructive sleep apnoea
3. BMI>30 kg/$m^2$ with 'brittle' diabetes or other severe obesity related condition
4. Has made reasonable attempts at weight loss without success
5. Age 18-65 years
6. No alcohol or drug dependency
7. Committed to life-long follow up and a change in lifestyle
8. Has realistic expectations of risks, benefits and amount of weight loss associated with surgery

Surgery can change how much you can eat, how much you want to eat and sometimes how much energy your body gets from the food that you eat. It is neither a 'magic bullet' or a 'quick fix', it has to be linked to a commitment to change your lifestyle in terms of diet and exercise to be associated with good outcomes. Most patients will see significant weight loss after surgery, however, occasionally this does not happen, usually due to a failure to commit to healthy eating and regular exercise, equally there is great variability in how much an individual loses. I will discuss this with you but it's important that your expectation of weight loss is realistic.

All operations carry risk and these have to be balanced against the long-term health benefits of a healthy weight. Generally, unless you are old or very

unwell, the benefits offset the risks, as obesity does negatively impact your health and well-being.

## Operations

### Laparoscopic Roux-en-Y Gastric bypass (RYGB)

The Roux-en-Y gastric bypass (RYGB) has been around in one form or another since the 1960s. Globally it is the most common weight loss procedure being especially popular in the US where it was first developed. The name comes from a Swiss surgeon: Dr Cesar Roux who developed the techniques of joining up the bowel which is used in this operation.

We have the most long-term data about the RYGB and as such it has become the operation against which all other obesity operations are compared. However, although it is a standard to compare against it is not a 'gold' standard since all bariatric operations have their good and bad aspects and the RYGB has specific drawbacks too. One of the major advances has been the move to perform this surgery laparoscopically, which has reduced post-operative discomfort and length of hospital stay with a shorter time to return to normal activities but with preserved safety. This can be written as LRYGB but since I almost never do this as an open procedure, I just write RYGB.

RYGB has at least three effects on patients relationship with food and thereby their weight. To begin with, they are restrictive with portions sizes reduced by their new, smaller sized gastric (stomach) pouch that is formed by the surgery. This is done using a special surgical stapler – this seals (with many tiny titanium staples) and cuts at the same time. Eating more than this pouch can hold will lead to discomfort and vomiting so patients eat less and feel full quickly.

The second effect is of malabsorption: not all the calories you eat are absorbed by the body. This is because of the bypass element. The pouch is re-attached to the small bowel further down (around 1.5m in fact) than where the food usually would have been. At this further point, the food then mixes with re-directed gastric and pancreatic juices so that digestion can begin. Hunger is significantly reduced due to complex hormonal feedback changes (mostly be a reduction in the hunger hormone – Ghrelin). As a result, patients don't have as much hunger, feel full quickly when eating so don't eat as much and don't absorb all the calories that they eat. This is great for weight loss but some nutrients are also not absorbed as well. So patients need to take extra (supplemental) vitamins and minerals every day and have regular blood tests

to check that their vitamin and mineral levels are healthy. Deficiencies are possible and can be dangerous if they do not take the supplements.

Weight loss is most rapid in the first three months after surgery but it can take 18 months after a RYGB for weight loss to plateau. Every person is different and it depends on the commitment and lifestyle changes that patients make but on average, patients loss around 30% of their total body weight or around 60-70% of their excess weight with a RYGB over 18 months. But everyone is different, some lose weight faster, some slower, some lose more than this and some less. There is no way to predict exactly how much weight that patients will lose but it is uncommon not to lose some weight. This weight loss and other hormonal effects mean that there can also be dramatic improvements in medical conditions such as diabetes and hypertension. Many patients go into complete 'remission' from their type II diabetes - meaning that they no longer require medication such as insulin or oral tablets to help them control their sugars. Hypertension and high cholesterol can also resolve and sleep apnoea also often improves.

It is important to make permanent changes in lifestyle in the first couple of years after surgery while the operation is working best. As over time, the operation's effects do fade – the restriction can dissipate as the gastric pouch stretches over time and body can adapt or compensates for the malabsorptive effect.

### Advantages

- Small meals & less hunger
- Feel fuller quicker and stay fuller for longer
- Lose 30% of total body weight – viewed as the 'standard' that we measure all weight loss operations against
- Significant effects on co-morbidities: resolution of type 2 diabetes, improvement in hypertension, reduce sleep apnoea etc.
- An end-point operation if other surgeries fail or lead to a complication
- Reversible (although a major operation to do so)

### Disadvantages

- Technically difficult procedure with two joins of the bowel, means that risk of complications is relatively high
- Not technically possible in high BMI patients (BMI>55kg/$m^2$)
- Complications possible such as leaks and bleeds – see following section

- Specific complication of internal hernia in 5% of patients where bowel can twist causing pain or blockage or can damage bowel and threaten life
- No access to the duodenum with a gastroscope due to the bypassed bowel
- Daily vitamin/mineral supplements for life
- Annual blood tests required
- Dumping syndrome when eating high carbohydrate meals
- Ulcers can form at the join between the pouch and the bowel

## Laparoscopic Sleeve Gastrectomy (LSG)

The sleeve gastrectomy developed from both as an open operation called the Vertical Banded Gastroplasty (VBG) and as part one of a two stage procedure called the Biliary-Pancreatic Diversion (BPD). Over time it has rightfully become a stand-alone procedure which is now performed laparoscopically (LSG). In basic terms, the stomach size is reduced by removing 80-90% of it using those special sealing and cutting staplers – these use tiny titanium staples. The stomach that is stapled off is removed and can be sent to the laboratory for microscopic analysis if you want. Obviously, having a smaller stomach limits how much patients can eat because the new stomach is only around 100-150ml in volume. But the LSG is also associated with some hormone changes. The part of the stomach that is removed, is the part that produces hunger hormone (ghrelin) so that patients feel less hungry. Also the smaller stomach empties quicker than before and this makes patients feel full so that they eat less. Although not strictly a 'malabsorptive' operation, I advise patients to take extra (supplemental) vitamins and minerals every day and have regular blood tests to check that their vitamin and mineral levels are healthy. Although deficiencies are uncommon after LSG, it is possible and can be damaging so it's safer and healthier to use supplements.

Weight loss is rapid in the first three months after surgery but it can take 18 months after a LSG for weight loss to plateau. Every person is different and it depends on the commitment and lifestyle changes that patients make but on average, patients loss around 25% of their total body weight or around 60% of their excess weight with a LSG over 18 months. But everyone is different, some lose weight faster, some slower, some lose more than this and some less. There is no way to predict exactly how much weight that patients will lose but it is uncommon not to lose some weight. This weight loss can lead to significant improvements in medical conditions such as diabetes and hypertension. Some patients go into complete 'remission' from their type II

diabetes - meaning that they no longer require medication such as insulin or oral tablets to help them control their sugars or see improvements in their 'sugars'. Hypertension and high cholesterol can also resolve and sleep apnoea also often improves.

It is important to make permanent changes in lifestyle in the first couple of years after surgery while the operation is working best. As over time, the operation's effects do fade as the sleeve will stretch over years.

### Advantages

- Small meals & less hunger
- Feel fuller quicker and stay fuller for longer
- Lose 25% of total body weight
- No bypassed bowel means that the bowel is intact and the same configuration – this means that your duodenum can be accessed easily by an endoscope if necessary
- Effects on co-morbidities: resolution of type 2 diabetes, improvement in hypertension, reduce sleep apnoea etc.
- Further surgery still possible – such as conversion to a gastric bypass
- Technically straightforward and possible up to the highest BMI
- Relatively low risks

### Disadvantages

- Small meals
- Rates of post surgery reflux high at 20%, severe reflux in 4%
- Around 25% of patients regain weight by 10 years – usually due to failure to change lifestyle
- 10% of patients fail to lose as much weight as expected
- Staple line leak in 1% (rarely life threatening but can be difficult to heal)
- In theory a permanent non-reversible procedure – stapled stomach is removed
- Daily vitamin/mineral supplements for life with annual blood tests

## Laparoscopic One Anastomosis/Mini- Gastric Bypass (OAGB/MGB)

There are a few very similar operations with different names: **Mini-Gastric Bypass** (MGB), and **One Anastomosis Gastric Bypass** (OAGB), which are now accepted as basically the same thing and the names can be used interchangeably.

This is basically a newer version of the RYGB operation which is gaining in popularity because it is simpler, quicker, associated with lower complication

rates and appears to be just as effective. I prefer the term OAGB but many patients like calling this the MGB. It has been around since the 1990s but has only become popular over the last 10 years or so. However, in that time thousands of patients have undergone this operation and it is now accepted as a non-experimental variant. Again this is performed laparoscopically but not usually written with an L.

It is very similar to the traditional RYGB. But it is a simpler procedure with a shorter operating time. The key difference is that this technique involves only one join of the bowel (anastomosis) rather than two. This join is between the stomach and the small bowel, whereas the standard Roux-en-Y Gastric Bypass has another join between two loops of small bowel. In simple terms having one less join reduces the risk of the procedure as the joins are often the site of complications such as bleeding and leak. The operation is another 'keyhole' or laparoscopic surgery which uses 5 small holes to complete. It is a great primary operation but I also use this as a revision procedure for patients who have had a failed previous surgery such as a gastric band.

It works in the same way as a RYGB. There is a degree of restriction, as instead of eating into your stomach which can easily hold 1.5l of food or fluid, you eat into a smaller gastric 'pouch' which is again surgically constructed with our special staplers. This has a volume of only 50-200ml and around 1.5m of bowel is 'bypassed' so the malabsorptive effects are almost identical to the RYGB as the food travels into the small bowel further down the road than previously. This is the 'bypass' component and means that you do not absorb all the calories in your food. Finally, there are a number of hormone changes as a result of the diversion of food and the stapling of the gastric pouch which reduces your hunger and increases the feeling of fullness after eating only small amounts.

### Advantages

- Moderately small meals & less hunger
- Feel fuller quicker and stay fuller for longer
- Lose 30% of total body weight
- Significant effects on co-morbidities (possibly even better than a RYGB): resolution of type 2 diabetes, improvement in hypertension, reduce sleep apnoea etc.
- Reversible (although a major operation to do so)
- Technically easier than a RYGB and only one join to have problems with
- Internal hernia rates extremely low

### Disadvantages

- Technically more difficult than a LSG
- Not technically possible in very high BMI patients (BMI>60kg/$m^2$)
- Complications possible such as leaks and bleeds – see following section
- No access to the duodenum with a gastroscope due to the bypassed bowel
- Daily vitamin/mineral supplements for life
- Annual blood tests required
- Dumping syndrome when eating high carbohydrate meals
- Ulcers can form at the join between the gastric pouch and the bowel
- Bile reflux and biliary gastritis

## Laparoscopic Adjustable Gastric Band (LAGB)

The band is a simple premise. Laparoscopically, an adjustable, soft, inflatable band is placed around the upper part of the stomach to create a smaller stomach pouch. This works by restricting you portion size and hormone changes reduce your hunger and increase your satiety. There is not cutting or joining of the stomach or the bowels so the risks are lower and there is no malabsorption as everything is in continuity. LAGB was incredibly popular when introduced in the 1990s. Bands were marketed as being very safe to place, effective, adjustable and easily removable without the issues of nutritional deficiencies that are more common with the other weight loss surgeries. But this has not totally been borne out. Over time, there have been numerous issues. The weight loss is not as dramatic or sustained as other surgeries, and tight bands led to dilatation of the gastric pouch and oesophagus over time and can even erode into the stomach or slip leading to major problems and more surgery to deal with these problems. Adhesions and scar tissue forms under the band so they certainly leave their mark. They have fallen out of favour in most of the world but remain strangely popular in the UK. I don't like them but they possibly have a place in a defined group of patients – mostly young women, with lower BMIs (around 30kg/$m^2$), who want something that is adjustable and are happy to have repeated adjustments to stay in the correct weight loss zone. Regardless, I am happy to work with your band if you have one; remove your band or deal with the other consequences and problems they can cause; or revise your band to another more effective weight loss operation.

### Advantages

- Small meals & less hunger
- Feel fuller quicker and stay fuller for longer

- Lose 15-20% of total body weight
- Adjustable – can release restriction if wanting to attend a social function for example
- Reversible
- Technically the easiest of operations – a daycase procedure to place.
- Bowel and stomach remain intact and without joins
- No malabsorption

### Disadvantages

- Weight loss slow and less dramatic than other procedures (in 10% is very poor)
- Need adjustments to the band on a regular basis to be effective
- Infection due to accessing the port for the band with a needle
- Leakage is possible leading to failure of the system
- Port can become visible with weight loss
- Band slip can lead to failure or gastric damage
- Band erosion into the stomach
- Dilatation of the pouch above the band or the oesophagus
- Reflux is common in around 10% of patients
- 1 in 5 bands need to be removed and 1 in 7 need a second operation to keep the band working

## Which operation should I have?

As a surgeon I attend conferences dedicated to this question; every surgeon and patient has predetermined preferences. Although the bypasses are associated with the most weight loss they come with higher risks, malabsorption of not just calories but nutrients too and you only really need to lose enough weight to be healthy again and get into good habits – none of the procedures will turn you 'skinny'. What operation suits you and your eating patterns? Most patients fit into one of the following patterns: sweet eaters, snackers, large portion eaters, and skippers (skipping meals). For example, I generally find that sweet eaters do best with a bypass as dumping is an unpleasant a side-effect if you eat sugary foods after this surgery. Similarly, big portion eaters do best with a restrictive procedure such as a sleeve gastrectomy. My problem patients are those that drink a lot of calories either with alcohol, milky drinks or soft drinks and those that binge eat. I will generally work through your story of your weight and dietary pattern and health to determine together what will suit you best.

## Before surgery

Information is really important to make a decision. I do not assume that you understand surgery, but I do want you to come with some research and knowledge to your appointments, as having an operation always carries risks as well as benefits. At your appointment, I will discuss your history of weight gain and loss; your medical conditions if any; and examine you. If surgery is right for you, I will then talk about the types of operation and what I feel would be your best surgical option as well as listen to your preferences. I will finally discuss the general and specific risks and benefits and expectations. Some patients are ready for surgery at this point and others will need more time, more information or more investigations before proceeding.

I cannot operate without your 'informed' consent i.e. you must have capacity and enough knowledge to appreciate the benefits, the risks, the side-effects and are able to balance this information and agree to undergo weight loss surgery. Primary weight loss surgery is very safe but there have been cases worldwide of mortality or development of life-threatening and life-damaging complications and therefore you must agree to any of the risks of undergoing surgery. I encourage patients to have as much information as possible and I am always available to answer your questions. I will ask you to sign an eConsent form that I will send you via email – this is part of your consent but a 'Hospital consent form' will also need to be signed, perhaps on the day of surgery. Secondary or 'revisional' surgery usually carries a higher risk of complications and I will discuss this with you in more detail if this is the case.

## Pre-op Issues

### Smoking

I will not operate on you if you smoke. The risks of complications such of leaks from the bowel joins, ulceration of the joins, as well as general complications such as deep vein thrombosis and pulmonary embolism (DVT/PE), chest infections and pneumonia are all higher in smokers. You need to stop smooking for at least 3 months before surgery.

### Pregnancy

Pregnancy soon after weight loss surgery can endanger both your baby and you, due to the rapid weight loss and changes in your nutritional status. I recommend waiting at least 18 months after surgery before trying for pregnancy. In addition, the oral contraceptive pill may not be as reliable after bypass so I recommend using barrier methods, a coil or depot contraceptives. Your general practitioner should be able to advise you appropriately.  If you do

become pregnant after surgery please let me know so that I can advise you appropriately.

## Worry

All operations carry risk and the next section of this booklet will go through these in detail. Many patients are worried about these and I am happy to discuss your own individual risks with you. The other way to look at risks is to think about how your weight is going to affect you in your future and balance the low short term risks of surgery against the long-term damage that your weight will do to your health.

## Previous surgery

There are very few occasions where I cannot operate due to previous surgery. However, previous abdominal operations can alter which operation you can have and sometimes I am unable to complete your surgery using a laparoscopic approach and you have to have an open operation instead.

## Reversibility

It's best to think of all the operations as irreversible – this should be a permanent change for you. But physically gastric bands can be removed and the bypasses can be reversed. Over time, sleeve gastrectomy reverses itself – the stomach will stretch back to a normal size over 10 years or so. As such, it is vitally important to make long-term lifestyle changes or you could regain weight.

## Appointments

You have to commit to lifelong follow up for all operations – this does not have to be with me but it is important to have regular checks and blood tests in order to stay healthy. In the first two years after surgery this will be every few months but as time goes by this becomes an annual review. Gastric bands need much more follow up as you need to have this filled and checked around 3-4 times per year if you want a long-term result.

## Cost

You do not need a referral from a GP for private treatment, but it's a good idea to speak to your GP for advice about your weight issues first. Please do as much research as possible before you come to clinic and this will help us have a better discussion about your options or preferences.

The cost in Jersey is not vastly different to the UK except that we cannot do a 'package' of care. This means that what you have, you pay for: every blood test, every staple firing, every night in hospital is charged for by the hospital. I charge a surgical fee and the anaesthetist charges a fee for giving you your anaesthetic. I try to keep your costs down as much as I can reasonably do. One of the ways of doing this is to minimise your hospital stay as every night that you stay in hospital carries a considerable cost. Please read about 'Enhanced Recovery' later in this booklet.

## Treatment Abroad

Some people consider having treatment abroad, where costs can be cheaper. But please be aware that standards may not be as strict in clinics/hospitals outside of Jersey and the UK, and aftercare is not always straightforward. I have had personal experience of some patients who have had surgical disasters when having their surgery abroad. At the moment, the States are supporting me in sorting these unfortunate patients out but the UK NHS is looking to deny patients care who have gone abroad and had complications. If you have had a problem after surgery, then please let me know and I will look into how I can support and help you. If you are thinking of going overseas for treatment then please make sure you weigh up any potential savings against the potential risks

## Snoring

Please let me know if you have had any issues with daytime sleepiness and snoring. These are signs of obstructive sleep apnoea and can be dangerous if not treated before surgery.

## Social aspects

Food is a pleasure to many of us – it is an enjoyable experience to share food with friends and family and is an important part of many cultures and societies. Your diet and pattern of eating is definitely going to change after surgery but that does not take the enjoyment out of food nor the social aspect of eating in company. It's just different. You can still eat your favourite foods but less of them – if you are having this surgery then this aspect of your life has to change to improve your health. You need to commit and accept this change in your lifestyle. Some patients use food as a comfort or a coping mechanism, if this applies to you then you will have to find other coping strategies such as exercise, reading or hobbies. The more preparation for these changes that you make before surgery, then the easier it will be after surgery to adapt. I am

happy to work with you on this and am looking at ways that you can be supported more after surgery and the changes that it brings to your life.

## Exercise

It is no surprise that the more you exercise, the better the result of your surgery will be. It is essential to 'move'. With weight loss, moving and exercise will become easier and can be more vigorous. You wouldn't expect to run a marathon without building up to it with training. So start small but aim high. I strongly advise getting a step counter and aiming for 10000 steps per day.

## Preparing for surgery

You can definitely start making changes to your eating habits BEFORE your operation:

1. Eat slowly – make a meal last a bit longer and taste your food!
2. Chew well – this helps start digestion and will slow you down.
3. Don't mix fluids and food – this is really important after surgery as you often don't have room for both in your smaller stomach or pouch. Try to avoid drinking around 30 minutes before and after eating.
4. Eat regularly – this stops snacking.
5. Eat small portions – try a smaller plate to reduce your portion sizes.
6. Mentally prepare – think about how you eat at the moment – where do you feel hunger – is it in your stomach or your head?

## Pre-op VLCD & the Milk Diet

It is important that you follow a special Very Low Calorie Diet (VLCD) in the two weeks before your surgery. You will lose weight on this VLCD but the real benefit is that it 'shrinks' your liver. It is low in carbohydrates and fat which encourages the body to use up it's stores of glycogen (basically stored in the liver). I will be operating under your liver and many patients with obesity have a large, heavy, solid and fatty liver which reduces this space and increases the difficulty of the surgery. The more difficult the operation, the more risk it carries. By reducing the size of the liver, this increases the space and thus the ease and safety of the operation. But I also like the fact that this helps you to mentally prepare for your dietary journey after surgery. It's an opportunity to remove tempting foods from the house, to get used to taking a multi-vitamin every day, discuss the diet with your family and close friends and plan your future meals and cooking. There are a number of VLCD diets that we can use but the easiest and cheapest is the 'milk diet'. Essentially this involves drinking 2 litres of semi-skimmed milk a day together with a 'salty' drink and a multi-vitamin tablet. But NO food! A small number of patients experience side effects whilst on a VLCD, most commonly constipation, which can be

managed with over the counter type preparations. If you don't like milk then there are a number of other options and you may want to discuss this further with your dietician.

## Pre-assessment Clinic

Approximately two weeks before your surgery you will be invited to a pre-assessment clinic. During this visit you will be prepared for anaesthesia and your surgery by a specialist nurse. You will be accurately weighed and measured, your blood pressure will be measured and blood tests will be taken. Your nose and armpits may also be swabbed to make sure you don't have MRSA.

Some patients are deemed to be 'higher risk' than others due to previous surgery, a high BMI (>50) or because of co-existing medical problems. I will discuss this with you if this is applicable to you. This may mean that you have a higher chance of complications, for example, and may need a special assessment prior to surgery, spend your first night in the High Dependency Unit for closer monitoriing or need a longer hospital stay to monitor you safely afterwards. However, most patients will stay in hospital for at most two nights, and I advise that you consider 2-4 weeks off work depending on your job after surgery.

Think about transport to and from the hospital and who will be at home with you for the first two weeks after surgery when you may need some help, especially if you have children. Make plans for your post-operative diet – do you need to buy in some food for when you get home, will you need a blender, can you prepare meals in advance and freeze them? Think about how will you cope with boredom or stress after surgery?

## Admission to Hospital

You will be admitted to Jersey General Hospital. Our dedicated staff are trained to look after patients undergoing bariatric surgery and understand the needs and concerns of larger patients, but you also play a key role in your successful recovery. If you have any concerns while you are in hospital please speak. The ward is equipped with operation gowns, furniture and equipment suitable for larger patients.

You do not need to bring towels into hospital as we have them on the ward. You will need slippers or suitable footwear and nightwear. A few patients have previously recommended 'satin' type pyjamas as they slide around easier in bed to help you move around or turn over after surgery. Avoid tight fitting

clothes or tight elastic around the waist, as these can be uncomfortable after surgery. You will need to bring your own toiletries and may want to bring a dressing gown too. If you use a CPAP machine please make sure you bring it with you and any other items that you feel will aid your recovery. Storage space is always limited so try not to bring in valuables or excess amounts of belongings. The hospital will not accept responsibility for loss or damage of your items. Bring your regular medication with you please – some of these may need to be stopped up to 7-10 days prior to surgery such as blood thinners or anti-platelet agents – please discuss with me beforehand if you have any medication queries.

Please fast from food for at least 6 hours before surgery. You can have small amounts of water (no more than 200ml per hour) up to 2 hours prior to admission and unless told otherwise please take your normal morning medication with a sip of water. I will see you on the ward and you will sign your official consent with me and also be reviewed by a consultant anaesthetist.

When you get to the operating theatre the anaesthetist will prepare you and give you a general anaesthetic. He or she will give you some antibiotics. All operations involve five small incisions being made on your abdomen – three of these are about a centimetre in size and two are 5mm. The operation will take between 1-3 hours for Mr Shenfine to perform. The wounds are closed with dissolvable sutures and local anaesthetic is injected into your abdomen as well as your skin around these wounds to reduce your post-operative discomfort.

You will wake up in the 'recovery' area in theatre and will be kept there until you are stable and comfortable before returning to the ward or to the 'High Dependency Unit' of ICU. You will have a fluid drip, oxygen to breathe and regular monitoring of your vital signs. Some patients need closer monitoring. I do a routine 'leak test' in theatre during your surgery so you will be allowed sips of water to drink almost straight away. If you tolerate this then you can move on to mouthfuls of 'clear fluids' i.e. water. On the day after surgery after you have been reviewed by Mr Shenfine he will let you have 'free' fluids' which is basically anything – coffee, tea, soup or juice but again in small amounts. You must 'sip' fluid not 'chug' - let these sips go down before trying another mouthful of fluid. This is REALLY important – I don't want excess pressure on the staple lines or joins by overfilling your stomach. Because of the small mouthfuls you will need to sips fluids almost constantly to keep your hydration up – otherwise you will feel unwell and get constipated. If there has been concern about the joins or you are having revisional surgery then you may not be allowed to drink until you have had a radiology (x-ray) 'contrast

swallow' test to check the integrity of the new plumbing. I like to keep you on fluids only for two weeks after surgery. This is safer and more comfortable because there is a lot of swelling around the surgery sites as well as having a much smaller stomach and getting used to this without damaging anything inside.

Your pain will initially be managed with a combination of paracetamol and anti-inflammatory painkillers. I try to avoid morphine-type painkillers as these can slow your recovery. Having some discomfort is normal but if you have severe pain then you must let us know. Back on the ward, four to six hours after surgery, you will be sat out in a chair to ensure you are breathing well and will be encouraged to move around your bed area, minimising the risk of breathing complications and the formation of clots in your leg veins. You will be given a blood thinning injection at six hours after surgery and will be wearing special anti-embolic stockings throughout your stay – these need to stay on until you are fully mobile after surgery. Please do not walk unassisted until the staff have told you that you can do this. The day after surgery it is usually possible to remove all the monitoring and drips and most patients are fit for discharge home on the second day after surgery and by this time are mobile and self-caring. Breathing exercises after surgery are encouraged. Take plenty of deep breaths and we recommend holding a pillow or towel over your abdomen to support you when you cough.

## Enhanced Recovery

I want to minimise patients stay in hospital. This is for lots of reasons. It's better for you and it also means that we don't have as much pressure on our hospital beds. It means that you can recover in the comfort of your own home away from the hustle and bustle of a busy hospital ward.
This means getting you moving as soon as possible after surgery – this reduces your pain, reduces the risk of shest infections and blood clots (deep venous thrombosis and pulmonary embolism). It is about getting your painkillers right and avoiding opiates which slow you down and cause constipation.
You will be discharged with painkillers – usually paracetamol and codeine and occasionally a short course of an anti-inflammatory medication, an anti-acid medication for the first three months after surgery, some anti-nausea medication and sometimes liquid iron. If you have a high risk for a blood clot I may ask you to give yourself blood thinning injections for a period of time at home – up to 28 days. You will be taught how to do this before you are discharged.
All your stitches are under the skin and will dissolve – there is no need to have these removed. Sometimes you can feel the end of a stitch – if it irritates you

then you can cut this flush to the skin. You will have dressings over your wounds. Please leave these in place for as long as you can – you will get better wound healing if you do. You can shower and pat these dry. If you need to replace a dressing or have a problem with a wound then please let me know.

Make sure someone can pick you up from the hospital and that you have adequate support in place for when you get home. Make sure that you have enough supplies of your regular medications. If you need a sick certificate then let me know and I will write this for you. I generally see you again two weeks after your surgery but
**do not hesitate** to get in touch with me via hospital switchboard if you or your family are concerned about your condition. If you do have a complication then the earlier this is picked up the easier it is to deal with it and stop any long-term consequences. I do not care about being disturbed at any time if you are unwell.

## Risks and complications of Surgery

Weight loss surgery is safe or I wouldn't do it! However, there are always risks with any surgery. Some risks are general and occur with any operation and some are specific to the exact surgery you are having. Also some patients have higher risks due to other medical conditions or by having revisional (secondary) surgery which is always more difficult due to scar tissue and therefore higher risk. Any quoted risk rates are estimates based on the literature.

Although you are unlikely to suffer complications, it is important that you know and appreciate your risk beforehand and I will not only discuss your particular risk profile but also will be happy to answer any questions that you have about this.

### General Complications

All operations and anaesthetics carry a small amount of risk in terms of bleeding, infection, scarring, blood clots, cardiological complications (heart issues) such as heart attack and respiratory (lung) issues such as pneumonia.

### Short term weight loss surgery complications

#### Conversion to an open operation

It isn't always possible to complete the operation using keyhole surgery. This is rare unless you have had previous surgery in this area beforehand. However, your safety is paramount so if there is bleeding during surgery or unusual anatomy or severe adhesions from previous surgery then I may have to convert from a keyhole approach to an open operation. Your operation will not change inside but a larger wound takes more time to recover from and stronger painkillers which will delay your recovery. The risk of conversion to open surgery is around 1 in 250 cases.

#### Anastomotic Leak

Occasionally the join between bowel can leak. This is called an anastomotic leak and occurs in less than 1 in 100 patients. I do a leak test on table with a special dye for the main bowel join to ensure that you do not leave the operating theatre without a watertight join. But leaks can happen afterwards (usually within the first ten days after surgery). If this occurs, bowel content can escape into the abdominal cavity causing peritonitis. You would know if this happened to you. It causes pain and an intense feeling of being unwell. If the leak is small and happens early then rapid re-operation may stop the leak, sometimes small leaks can even simply be treated with antibiotics and time. Large leaks although rare, can become life-threatening and need re-operations and prolonged hospital stays to recover from.

### Wound Infection

Minor wound infections are common and can usually be managed with wound care and sometimes oral antibiotics. Rarely wound infections can be severe and will need daily dressings or even hospital admission and intravenous antibiotics until they heal.

### Bleeding

Significant bleeding after surgery affects 1 in 100 patients. Patients can bleed into the bowel or into the abdominal cavity. If severe you may need a blood transfusion and rarely a re-operation or an endoscopy to stop the bleeding.

### Heart related complication

Heart attack, stroke and other cardiac complications can occur after surgery. The risk is highest in patients with pre-existing problems or vessel related disease. If higher risk you may have to see a cardiologist prior to your surgery. Our anaesthetists are incredibly skilled and experienced and watch every heartbeat during your surgery.

### Chest Infection

Chest infections are really common after any surgery. They are especially an issue with abdominal surgery in bigger patients who smoke. All patients are asked to take deep breaths and mobilise as early as possible after surgery. Chest infections will usually be treated with antibiotics and physiotherapy.

### Deep Vein Thrombosis and Pulmonary embolism

Blood clots in the veins of the leg are called deep vein thromboses (DVT). The danger with these clots is that they can detach and travel to your lungs. This is called a pulmonary embolism (PE) and can be very dangerous or even fatal. It is best to minimise the risk of this complication by taking preventative steps. It is for this reason that you will wear TED stockings and during surgery you will be attached to a machine to 'pump' your calf muscles. You will also be given some blood thinning injections until you are fully mobile. In some patients we give these injections even after you go home. The risk of a PE is around 1 in 200 patients.

### Death

Worldwide the risk is less than 1 in 200 patients. If you have a higher risk then this will be discussed with you and documented. I has never had a patient mortality with weight loss surgery.

## Longer-term weight loss surgery complications

### Reflux

Acid reflux is really common with 20-40% of the general population experiencing heartburn.  Obesity is a known risk factor for reflux so many patients already have symptoms and about 15% will have a hiatus hernia. Reflux symptoms are very variable after the different weight loss operations. It

is rare for patients to have any reflux at all after a RYGB but 20% of patients after LSG will have symptomatic acid reflux. It is even more complicated after a OAGB as although acid reflux is unusual, bile reflux (which feels the same) is common. I recommends that ALL patients take a Proton Pump Inhibitor tablet (such as pantoprazole or similar) for 3 months after surgery. At this point I will ask you to stop taking this tablet and see what happens. Most patients will have no or minimal symptoms of reflux. Nearly all RYGB patients will be able to stop the medication. Some OAGB patients will need to continue and 5 in 1000 will have severe bile reflux and need a second operation to deal with this. 20% of LSG patients will need to continue the medication and around 4% develop severe reflux and need a second surgery to deal with this. If you have a pre-existing significant hiatus hernia at the time of your surgery then I will repair this. I recommend a follow up endoscopy at 5 years for all weight loss surgery patients – as some patients develop silent reflux that can cause damage to the oesophagus and has been linked to developing cancer of the oesophagus. Although to keep this in perspective, obesity is a far more significant risk factor for cancer than this reflux associated risk would ever be.

### Stomal ulcers

Occasionally, patients can develop ulcers on the join between the stomach pouch and the bowel joined to it. This usually causes pain after eating. It is more common in patients who smoke and those who use anti-inflammatory drugs such as ibuprofen (brufen/nurofen) or diclofenac (voltarol). They heal when you stop the insult i.e. stop smoking and take strong anti-acid tablets. Occasionally they require surgery and rarely can even bleed or perforate and endanger your life. For this reason you must not smoke after gastric bypass and avoid anti-inflammatory drugs.

### Strictures

The bowel joins can narrow after surgery (stricture). This happens in 2 in 100 patients and causes difficulty eating solid foods and vomiting. Treatment is usually by dilating (stretching) the join affected using a special balloon during an endoscopy under sedation. One or two stretches usually cures this but in rare cases multiple dilatations over a few weeks are required.

### Adhesions

Scar tissue inside your abdomen occurs after any surgery but is less common after laparoscopic than open operations. These adhesions can kink or obstruct the small bowel causing abdominal pain.

### Internal Hernia

This complication is peculiar to gastric bypasses and in particular the RYGB. This is due to the fact that we have moved the normal position of your bowel and this leads to ‘holes’ between the loops of bowel that the bowel can twist through. I specifically close these holes during your surgery but with weight

loss a small hole can enlarge and form the hernia. These occur in around 5 in 100 patients. This causes bowel to get repeatedly trapped and released, causing intermittent abdominal pain, bloating, nausea and retching then resolution. A special CT scan may help to check for this if this keeps happening but sometimes a laparoscopy may be necessary to diagnose the internal hernia and to re-close these holes. Rarely the bowel can get trapped and not release, this can lead to strangulation of the bowel – this is a surgical emergency as the bowel can lose it's blood supply. Although rare this can threaten your life. Should you ever get severe abdominal pain after bypass surgery you must go to the hospital and inform them that this may be the cause. They will ring me directly.

## Nutritional deficiencies

Nutritional deficiencies can occur after bypass surgery but they are rare if you have good follow up. You must take vitamin and mineral supplements every day for the rest of your life and have regular (at least annual) blood tests. Nutritional deficiencies can lead to anything from brittle bones or weak muscles to permanent neurological damage but are easy to avoid.

## Dumping

Dumping syndrome is not uncommon after any weight loss surgery but especially after gastric bypasses. This is due to food moving quicker through the upper gut and causing fluid shifts or swings in your blood sugar levels due to too rapid absorption. It makes you feel unwell between 15-20 minutes to an hour after eating: sweating, nausea, dizziness followed by diarrhoea. It is nearly always due to eating something with too much 'sugar' in it. Some sugary things are obvious but there are sugars in lots of food that you may not expect: for example milky drinks, fruit juices etc. By cutting these out of your diet the dumping improves.

## Medications

Most drugs are unaffected by weight loss surgery except for 'slow release' medications. Please check with me if you are on any of these medications.

## Alcohol

I would prefer you to avoid alcohol for at least three months after surgery. After this it is safe to drink alcohol but please note that alcohol is absorbed quicker after weight loss surgery and can lead to more rapid effects with a spike in your blood level. I strongly recommend NEVER drinking any alcohol if you are going to drive. There have been cases of even small amounts of alcohol putting patients 'over the limit'.

## Infertility, contraception and pregnancy

Due to the rapid weight loss and changes in your nutritional status in the period after weight loss surgery, I recommend waiting at least 18 months after surgery before trying for pregnancy. In addition, the oral contraceptive pill

may not be as reliable after bypass so I recommend using barrier methods, a coil or depot contraceptives. Your general practitioner should be able to advise you appropriately. If you do become pregnant after surgery please let me or your GP know so that we can advise you appropriately.

### Psychological issues

Some patients suffer psychologically after surgery. You may have 'buyers remorse' immediately after surgery – did you really need an operation to help with your weight, is this really worth it, can I just get this reversed? You may feel down or sad or upset. This is normal and is part of the adjustment period. Equally, if you have used food as a 'comfort' for emotional swings then losing this support can leave you feeling 'lost'. If you need specific psychological help or support please do not hesitate to tell me. I am here to make this a good journey as well as being successful one to improve your health.

### Hair loss

Thinning of your hair is surprisingly common but is rarely discussed! It's probably due to a mixture of rapid weight loss, low haemoglobin, low protein and a 'shock' response of the body. It is most noticeable 3-6 months after your surgery. For this reason it is important to take your vitamin supplements and maximise your protein intake. It's very unlikely that you will become bald! But it can take a while for your hair to thicken up.

### Weight gain

Your weight loss journey is a personal one. Some lose weight faster than others but at some point some weight re-gain is common and normal. This is due to your body adapting to the surgery so it is vitally important to make lifelong lifestyle changes and not to rely on the surgery as a magic bullet to control your weight. It's a tool. And tools work best when they are used the way they were intended. Work with me to set realistic and sustainable lifestyle changes and do not set yourself unrealistic expectations that will ultimately disappoint you.

### Excessive weight loss

I cannot accurately predict how much weight you will lose. Sometimes patients lose more than they expect especially those who re-discover a love of exercise as their weight comes off. If you are worried about how much you are losing then please talk to me about it.

### Re-emergence of medical issues

We talk about diabetes going into remission rather than being cured because we have seen the symptoms of diabetes and other conditions recurring. Again, viewing surgery in conjunction with lifelong lifestyle change is the best way to keep you healthy.

All weight loss surgery patients need regular support and assessment life-long. Feelings of hunger and satiety vary – you may never feel hungry and the feeling of 'full' can be different to previously or 'move' higher up. Overeating can cause unusual symptoms such as sneezing, shoulder pain, excessive salivation or even shortness of breath. It's important to slow down and chew thoroughly. Think about the rule of 20s: 20 chews of food, take 20 seconds with food in your mouth before you swallow and at least 20 minutes to eat your meals. Weight loss can affect lots of aspects of your life in unexpected ways. There are many counselling and patient groups online as well as at least one group on the island that can help support you and your issues. Excess skin tends not to shrink after surgery and you may need surgery to deal with this once your body weight is stable. I do not do this surgery and there is no one operating on the island who does either but I can recommend UK surgeons who do this surgery should you require it.

## At home

It takes about two weeks to recover after surgery and return to normal activity including work unless this is physical. I recommend that you walk as much as possible and increase the distance daily. Regular paracetamol with additional as needed codeine painkillers are usually sufficient to control your discomfort once you are at home.

The first couple of weeks after surgery are a whirlwind of highs and lows. One day you will feel amazing, pleased with your decisions, comfortable and happy and the next day can be one of discomfort, constipation and regret. The liquid diet is boring but important. It allows the joins of the bowel and staple lines to heal up safely and also gives you a chance to reset your brain in terms of your diet, how to eat and how much to eat.

Walking and being active around the home will enhance your recovery, reduce your fatigue and lower the risk of blood clots in your legs. Gradually increase your exercise every day – the distance or the time that you walk depending on your level of comfort. If you have higher risk for blood clots then you may have to have daily injections to thin your blood after surgery when you are at home for 2-4 weeks. If so then during your hospital stay in hospital you will be taught how to give yourself these injections.

Moderate to strenuous activity is best avoided for around 6 weeks after surgery while your wounds are healing to prevent hernias. Avoid lifting more than 10kg.

You shouldn't drive until you are sure that you can do an emergency stop and you should inform your insurance company that you've had surgery before driving. This is normally between 7-14 days.

## Post-op Diet

All weight loss operations have a restrictive component to begin with in that you have a very small stomach pouch to eat into. You simply cannot eat much, feel full quickly and this sensation lasts longer than usual although the sensation may be different to feeling full that you have had before. Be careful not to overeat – this will make you feel uncomfortable and you could vomit. For the first two weeks after surgery I only want you to drink fluids. This allows you to experience some of these sensations without causing any damage as fluid will empty from your stomach or pouch quickly. For the two weeks following this, you will be eating puree, and gradually thickening up your diet as time progresses so that you can experience that full feeling. Some but not all people lose their hunger entirely after surgery and very occasionally some patients feel more hungry! There is a difference between mental or emotional hunger, which may have become engrained over time and true physical hunger. Regular small meals will help to regulate both your emotional feelings of hunger and your energy levels. You can't go back to just one big meal per day with lots of little snacks. Poor weight loss after surgery is often due to high-energy snacking.

## Ten how to eat rules!

Here are ten simple things that are common sense but worth sticking to after your surgery:

1. Set aside time to prepare food and to eat.
2. Protein (meat and non-meat) is really important, it fills you up, helps you to heal and maintains your muscles. Liquid protein (mostly dairy) and protein powder can sometimes make up shortfalls in the immediate period after surgery.
3. Take no more than a tablespoon size mouthful at a time.
4. Slow down and chew well. Chew every mouthful. 20 chews is a good number to remember and put your spoon down between each mouthful. Wait. This allows time for the food to settle in the stomach, before taking the next mouthful.
5. The rule of 20's: Take 20 minutes to eat your meals. Chews 20 times and keep food in your mouth for 20 seconds.
6. If you get pain or discomfort – this is probably because you've eaten too fast or not chewed enough. Your intake will increase a little over time

but you will learn to stop when you are full. Ignoring that feeling will ultimately stretch your pouch and lead to weight re-gain.

7. For any new food, take a very small thin slice or bite. Use your knife to do the work by cutting against the grain of meats and vegetables and taking thin slices. This makes it easier for your teeth to break down the fibres.
8. There will always be some foods you cannot tolerate, but with time and practice, you should be able to eat most things.
9. Ensure you have good fluid intake every day; drink a minimum of 1.5-2 litres. If you don't drink enough then you can get headaches, dizziness and constipation. Sip, sip, sip!
10. Don't drink and eat at the same time. Leave a 30 minute gap between them.

### First 2 weeks after surgery

Fluids only! Limit your portions to ¼ to ¾ of a cup of fluid per meal. No more than 200ml at any time. Try to have six of these fluid meals per day. It's important that you are taking in protein so dairy products like yoghurts and thin custard, and milk are useful as well as protein rich soups. You can use a protein powder to supplement this. This will help to make you feel full and also help you to recover. If you use shakes then make these with skimmed milk rather than water. Between your 'meals' drink lots of water – tea, coffee, juices, diet cordial. It feels strange to drink between essentially fluid based meals but you need to get in at least 1.5l of fluids per day and have to sip slowly so this can take up a lot of time. If you get dehydrated then you will feel awful and become constipated. Avoid fizzy drinks for at least 3 months after surgery, they will make you feel bloated. Don't forget to take your supplements - a good multivitamin, calcium-vitamin D lifelong plus iron for a month and a PPI (pantoprazole or similar) for 6 months.

### Weeks 2-4 after surgery

After two weeks you can introduce thicker fluids – puree and smoothies. The consistency should be like baby food. Do not actually eat baby food though – it's too high in calories. Over time, you can thicken up the puree until it sits like a mound on your spoon. At the end of 4 weeks you can move on to soft foods. Try to progress slowly, if you eat too fast or move on to solid food too quickly then you will feel discomfort and may vomit. Aim for six 'meals' per day, allowing around 20-30 minutes per meal with drinks in between. Don't drink fluids during a mealtime and always stop if you feel discomfort. It's generally best to avoid drinking for 30 minutes before and after eating.

## Wound care

I likes the dressings that I place at the time of surgery to stay on as long as possible. Wounds heal better if left alone. Equally though, don't worry too much if the dressing does fall off. Once they start to get a bit 'peely' then peel them off! All the stitches are dissolvable and under the skin. Sometimes you may see a suture like a piece of cotton thread or fishing line. You can pull this out if it comes easily or cut it flush to the skin. Anything inside you will dissolve safely. Don't worry about getting your wounds or dressings wet in the shower just carefully pat these areas dry. Do not rub your wounds. Avoid any soaking such as a bath for the first two weeks. If there is any redness, swelling, discharge or pain from a wound, let your GP or me know as soon as possible. It is not unusual to have some bruising, lumpiness, numbness or reduced sensation around the wounds. These will all fade and improve over time.

## Constipation

Lots of patients get constipated after surgery. This is because of a mixture of fasting before surgery, the anaesthetic drugs we use and your painkillers and the lack of fibre in the first couple of weeks after surgery. Drink plenty (>1.5l) of fluids very day. Consider adding a fibre supplement to your fluids. Gentle exercise can help as well as simple things like drinking some prune juice. Sometimes some coloxyl and senna , fybogel or lactulose are needed to get things going.

## Weight loss

Most weight loss after bariatric surgery happens within the first 18 months after your operation. This can be rapid in the first 3-6 months, then a little wobbly between 6-12 months then slowing to a plateau by 18 months or so. Sometimes you can lose nothing for weeks then suddenly lose a lot. It is important that in the first two years that you establish your new lifestyle. One that is achievable and sustainable for the rest of your life as this is when you will feel the most motivated and the surgery works best.

## Exercise

Exercise helps to maintain muscle tone, maintain your bone strength, improve your weight loss and increase your confidence and feeling of well-being. Aim to do some activity every day, but don't expect to be running a marathon straight away. It will take time to build up your stamina. We recommend walking to begin with. It's simple and effective. Try to start with a daily walking plan. If you find walking difficult, then once your wounds are secure around two weeks after surgery, water-based exercises such as swimming or water aerobics are another option. Do not lift, pull, push or shove more than

10kg for the first 4-6 weeks after surgery. Sexual intercourse is fine if you feel up to it.

## Pain

You should not experience severe pain after this surgery – if you do, then contact me, your GP or go to emergency. I recommend regular paracetamol for the first few days but you will also have been given some stronger codeine based pain relief tablets which you can use in addition if you need them.
Do NOT take aspirin, anti-inflammatories, drink alcohol or smoke cigarettes after surgery unless you have specifically been told that you can do so. These all cause ulceration which can be life-threatening after this sort of surgery.

## Emotional Eating

Food in many cultures is used to celebrate, and to show love. Most people enjoy eating. However, food can become more than that for some patients: an emotional crutch, giving comfort and making them feel a little better when life is tough and stressful. This leads to eating without physical hunger, to get that brief feeling of warmth. Surgery removes that crutch and some patients then have nothing to fall back on when they do get stressed leading to psychological problems. This can be especially damaging if you weren't aware of how much support you got from food. It is better to put coping mechanisms in place before surgery. Some patients may transfer this emotional crutch to other dangerous pursuits such as alcohol, drugs and gambling. We try to identify patients who need psychological counselling before surgery but there is always help if you need it.

Please think about your relationship with food before you have surgery:

- Where do you eat?
- Do you sit down to eat?
- Do you do things while you eat like watch telly?
- Do you always taste and/or enjoy your food?
- Do you ever eat and not think about the food you are eating?
- When you eat are you always physically hungry?
- How do you feel when you eat?
- Do you eat when it's not a mealtime?
- Does anything trigger this?

## Follow-up

You will be followed up by me regularly for up to two years after surgery. At 2 weeks, 3 months, 6 months, a year and at two years after surgery. It is essential to your future health that you come to all your post-op visits. This will enable me to record your weight journey, the effect of weight loss on your medical conditions, your diet and progression, your vitamin levels and supplements, your activity and exercise, adjust your medications and review any blood results. If everything is well you may be discharged to your own GP and certainly by 2 years post-operatively. I highly recommend dietician support and I also recommend having an exercise plan as these two aspects are most likely to give you the best outcome.

## Notes:

1. Some of your data will be stored on a database unless you actively withhold consent. This is ultimately to improve patient care and ensure that my results are good.
2. I encourage you to check your weight regularly and to attend an annual weight and diet review with a healthcare professional lifelong, this will help to keep you on track and pick up any problems quickly if they ever occur. You must at least have lifelong annual blood tests to make sure your vitamin and mineral levels are good. Vitamin deficiencies can threaten your life or cause life-altering problems.
3. You must take your recommended supplements. Usually a good multivitamin and mineral supplement, vitamin B12 orally or injections every 3 months, a calcium-vitamin D supplement and iron if you still have periods.
4. If you develop retching or vomiting, swallowing problems, or severe abdominal pain then please attend the A&E department urgently.
5. We all need to take responsibility for our own health. The surgery may make you healthier but don't assume that your diabetes, hypertension, obstructive sleep apnoea or your mental health etc. will improve or go away forever. Your medication doses may need to be altered up or down over time or the formulation of your medication changed (liquid versus a tablet for example) and you still need your medical issues monitored even if they do go into remission. I strongly suggest continuing CPAP until your sleep apnoea has been confirmed to have been improved.
6. If you are a woman of child-bearing age then you must avoid pregnancy for at least 12–18 months post-surgery. Because of malabsorption I recommend barrier or depot contraception for this time period.

## Support groups

There are a number of online support groups especially on facebook. The local one can be found at: https://www.facebook.com/groups/JerseyWLSsupport

You can also email them if you have any specific questions or simply to ask to join the group: jerseywlsgroup@gmail.com

## Emergencies?

Complications can happen to anyone. If you are not well then do not hesitate to make your way to the Emergency Department at Jersey General Hospital or call an ambulance or call your GP. You can also call me directly on 07797787703