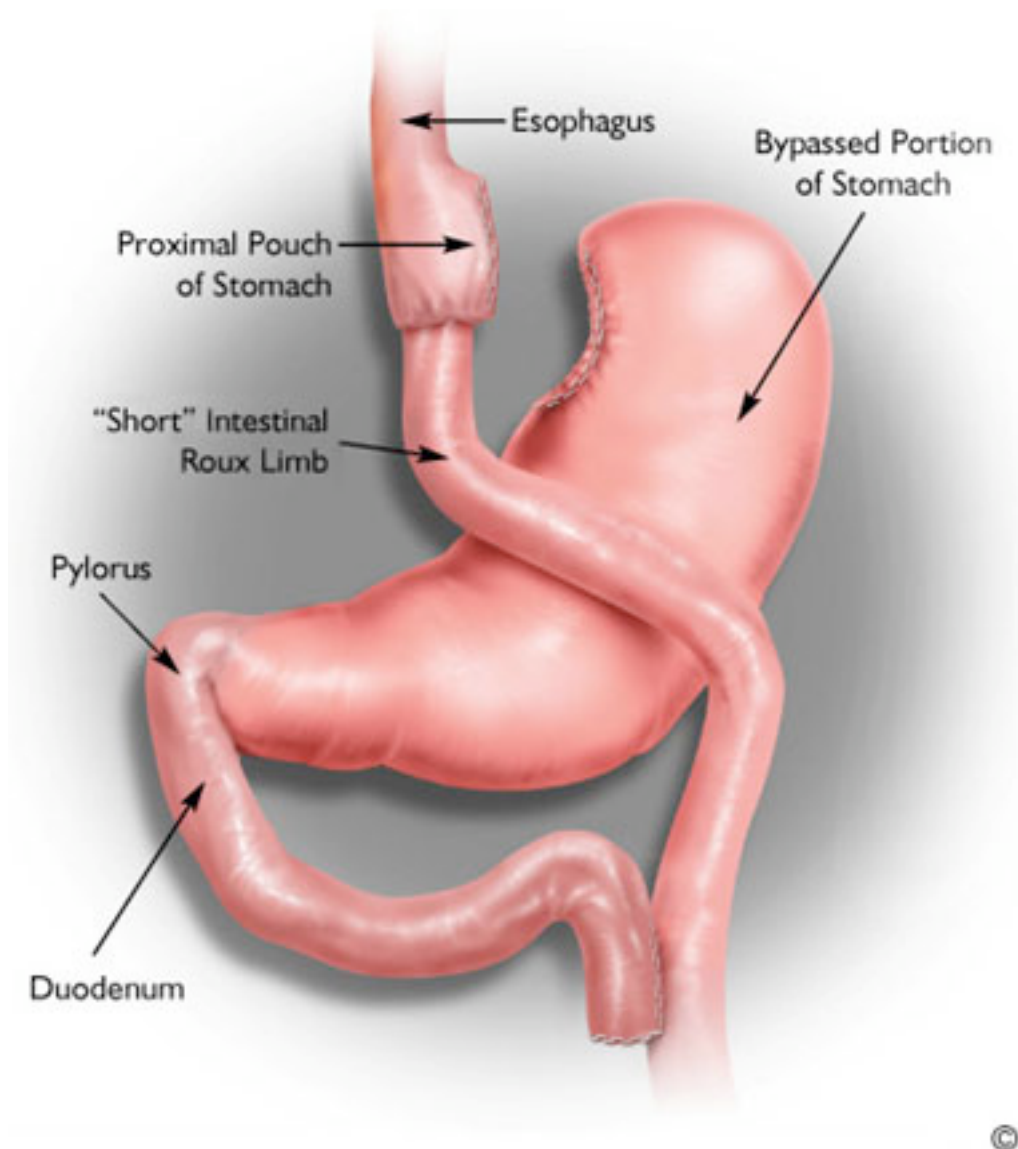


LAPAROSCOPIC ROUX-EN-Y GASTRIC BYPASS



You are considering undergoing a laparoscopic Roux-en-Y gastric bypass for weight loss. The purpose of this information sheet is to provide you with the necessary information to make an appropriate and informed decision as to whether you wish to proceed with a laparoscopic Roux-en-Y gastric bypass. Please read this information carefully and ask about anything you do not understand.

Morbid obesity is a disease that often has multiple associated medical illnesses and is associated with a significant decrease in life expectancy. Many of these can be reversed with significant long term weight loss. Evidence demonstrates that for the great majority of the morbidly obese, diet/exercise/medications including medically supervised medications/diets have a high failure rate and that bariatric surgery is the most effective long term way to achieve significant weight loss in these patients. The risks of a non-surgical approach to your morbid obesity is a very high failure rate with increased weight gain in the longer term leading to higher risk of obesity-related medical illness and decreased life expectancy.

The laparoscopic Roux-en-Y gastric bypass procedure involves making several small incisions through which laparoscopic instruments are inserted to perform the surgery. The procedure is designed to make a small reservoir or pouch for food at the upper end of your stomach with the capacity of about 30 mL. This pouch is connected to the small intestine by a new anastomosis, or join. The outlet of this join is about 4 cm in diameter. Ingested food therefore bypasses the majority of your stomach which remains alive and undisturbed in the abdominal cavity. Put another way, the majority of your stomach does not have food passing through it. As a result there is an associated prolonged decrease in appetite and sometimes even a temporary aversion to food. This procedure is predominantly a restrictive procedure and achieves weight loss by limiting the amount of food or liquid that can be taken at any time. There is a small aspect of malabsorption which requires you to take vitamins and supplements for the rest of your life. The procedure results in rapid weight loss initially which stabilises over a 12 to 18 month period. In the initial postoperative period it can take some time for you to learn how your new stomach behaves and you can have problems with some discomfort after eating and occasional vomiting.

Following gastric bypass you may experience an intolerance to certain types of food, usually fatty greasy foods, dairy products, and/or sweets (lollies) which may cause unpleasant symptoms similar to sea sickness such as sweating, nausea, shaking, abdominal pain and/or diarrhoea which lasts from a few minutes to an hour. This is known as “dumping” syndrome. Some patients regard this as a useful side effect as it reinforces their inability to consume high calorie foods. I would prefer that you concentrate on developing a healthy dietary intake post surgery.

You will lose a large amount of weight rapidly in the first few months following gastric bypass. Although this is something you are looking forward to, it is important that you lose this weight in a healthy way to avoid side effects such as fatigue and hair loss. It is important that you follow the dietary recommendations given to you by Erin, our Dietician. Your chance of achieving your weight loss goals is enhanced if you follow our bariatric programme after surgery. Like any bariatric procedure, there are ways to defeat the surgery and fail to lose weight or fail to achieve your maximum weight loss. If you overeat on a regular basis you can stretch your pouch or dilate your anastomosis leading to eventual weight gain. It is also possible to consume sufficient amounts of high calorie liquid or food such that you do not lose weight. In general, if you choose a balanced menu, high in protein, eaten at normal times and incorporate regular exercise into your daily routine, the tool that is gastric bypass will allow you to lose weight and keep it off in the longer term.

The Roux-en-Y gastric bypass is a common longstanding procedure performed around the world, particularly in the United States of America. Weight loss with the Roux-en-Y gastric bypass averages between 65 to 75% of excess weight. The health problems associated with excess weight

and quality of life are improved and these benefits can be achieved well before you have achieved your maximum weight loss.

Other bariatric procedures available in the practice including laparoscopic gastric band and laparoscopic sleeve gastrectomy. All of these procedures are designed as tools to help you to lose your excess weight, making you healthier and hopefully improving your quality of life. The gastric band restricts the size of your stomach to about 30 mL with an adjustable silicone band. The band can be adjusted by injecting saline into a port which sits underneath your skin below your breast bone. Weight loss occurs by restricting your dietary intake. The stomach is not altered in any way. It is the safest and least invasive of the bariatric procedures on offer. Weight loss is more gradual than the other procedures and, as with all the procedures, weight loss can be circumvented by consuming sufficient amounts of high calorie liquid or food. In addition, having the band either too loose or too tight can lead to long term problems. When closely monitored and adjusted appropriately, the gastric band can achieve weight loss on the average of 65% excess weight over a two to five year period.

The laparoscopic sleeve gastrectomy is a restrictive procedure that involves removing the majority of the stomach, turning the stomach into a thin tube-like structure, thus reducing the capacity of your stomach to approximately 50 mL initially and later to approximately 100 mL. Weight loss with the sleeve gastrectomy is faster than with the gastric band and weight loss of 60 to 70% of excess body weight can be achieved by 12 months. The safety profile of the sleeve gastrectomy lies between the gastric band, which is the safest, and the laparoscopic gastric bypass. Like the gastric band, the sleeve gastrectomy works as a restrictive procedure. Your anatomy is not altered and therefore there is less requirement for you to take any vitamin supplements. Unlike the gastric bypass, your stomach is still accessible by endoscope and you can continue to take oral medications and eat any food. However there is not as much long term data with the sleeve gastrectomy as the other two procedures and there is some suggestion that there can be some weight gain at ten years.

Please carefully weigh up the advantages and disadvantages of each bariatric procedure before you decide which one is your procedure of choice. Where appropriate I will make recommendation of which procedure you should consider as being the most appropriate for your medical condition.

EATING HABITS AND EXERCISE

Studies have shown that on average gastric bypass patients lose their appetite for the first five months after surgery. It is important during this period you take the appropriate amount of calories, protein and vitamins in order to avoid feeling ill, weak and possibly losing some hair. Your goal is to burn fat, not muscle, so taking in protein to maintain muscle bulk is very important. Your best chance of weight loss with the gastric bypass is in the first nine months. To get the most out of your bypass take full advantage of the early period of lack of appetite to get into the right eating and exercising habits. Patients who fail to develop good dietary habits are more likely to regain weight in the longer term. If you go back to high calorie foods such as chips, cookies, soft drinks and do not stay active, then even the best bypass will fail. Your bariatric procedure should be regarded as a tool to aid your weight loss. The importance of behavioural factors cannot be overemphasised. It is therefore very important that you participate in our Patient Support Group as much as possible and

seek dietary and psychological assistance whenever it is recommended or whenever you feel that you are struggling to achieve your goals. Studies have shown that patients who participate in patient support groups, and have their surgery carried out in the multidisciplinary environment which we have in place at BIOS achieve better results.

UNREALISTIC EXPECTATIONS

Weight loss with the laparoscopic gastric bypass can be very rapid. This ongoing weight loss can be psychologically addictive but ultimately it will slow down after six to nine months so it is best that you are prepared for this event. As has been stated previously, your best chance of weight loss is in the first few months, so this is the period when we recommend you begin your exercise regime with the assistance of Dan, our Exercise Physiologist. As you lose weight your exercise capacity will increase, making you feel better and fitter. The best average result from a laparoscopic gastric bypass is 70% excess body weight over an 18 month period. Bare in mind that the goal of surgery is to make you healthier, improve your life expectancy and decrease the problems suffered by obesity related diseases, it is not to get you down to your ideal weight. The more weight you have to start with, the more weight you will probably lose with surgery and our recommended dietary and exercise regime. Try not to get caught in the trap of comparing your weight loss with others.

If you are a woman you should avoid pregnancy in the first year postoperatively. Periods of rapid weight loss are not the right time to be trying to get pregnant or trying to maintain an existing pregnancy. Also bear in mind that as you lose weight your fertility will increase and you are more likely to become pregnant. Female gastric bypass patients can and do get pregnant and with appropriate support from obstetricians, will have an uneventful pregnancy. Obviously it is important should you get pregnant, that you bring to your obstetricians attention as soon as possible the fact that you have had gastric bypass surgery.

To make your surgery technically as safe as possible we will start you on an Optifast diet for at least two weeks prior to surgery. This is designed to shrink your liver and reduce your risk of surgical complications. It also introduces you to the liquid dietary regime you will have in the postoperative period. If your liver is excessively large at the time of surgery, your procedure may be aborted and rescheduled for a later date.

Smoking is a serious problem for bariatric surgical patients. It increases your risk of pulmonary complication and blood clots regardless of the procedure you have performed. I strongly recommend that if you are a smoker, that you try and stop smoking prior to surgery. **Even stopping smoking a week before surgery can be of benefit.**

You will meet our anaesthetists at the time of your gastroscopy prior to your chosen bariatric procedure. This is done to make sure, as best as possible, that you are an acceptable risk of anaesthesia. Anaesthetists may recommend further medical or cardiac investigations at that time. If this is the case your surgery will have to be postponed until these tests have been completed and evaluated by our anaesthetists. The pre-operative gastroscopy is designed as stated previously to introduce you to our anaesthetists but also to ensure that there are no other physical abnormalities which would preclude you from having surgery. In particular, for patients undertaking the laparoscopic gastric bypass, because the stomach is divided and the majority of the stomach is no longer accessible, it is important that this part of your stomach is inspected prior to the surgery. Bear in mind that after the operation, the majority of your stomach will not be accessible by

traditional endoscopy means and it will not be possible to access your bile ducts to remove gallstones using the endoscopic ERCP procedure. Surgery would be required to access your stomach or bile ducts in the future.

General risks which apply to all abdominal surgery include but are not limited to the anaesthetic (greater in the morbidly obese), deep venous thrombosis (DVT), pulmonary embolism, death, infection, bleeding, pneumonia, heart attack, stroke, bowel obstruction, intra-abdominal abscess, damages to intra-abdominal organs, adhesions, wound infections and incisional hernias.

BLEEDING

It is unusual that you will need a blood transfusion as the risk of significant bleeding is less than 1%.

INFECTION

Any surgery carries a risk of infection. The most common types are wound infections, urinary infections and chest infections. More serious types are blood infections, abscess and peritonitis. Although fortunately rare, some of these infections can progress to death, even if the source of infection is corrected and appropriately treated.

CLOTS

Blood clots in the veins in the legs or pelvis (DVT) can migrate to the lung (pulmonary embolism – PE) which can be fatal. These can occur after any type of surgery, and the risk persists after surgery for up to three weeks. The risk of this type of complication after bariatric surgery is less than 1%. However as it is such a serious complication and can result in sudden death, we take a number of steps to try and minimise the risks. You will be given injections to thin the blood, stockings to compress your legs and when you are asleep in the operating theatre, machines will be used to squeeze the blood from your legs. These machines are continued to be used on the ward when you are in bed and we encourage you to get up and walk about the ward as soon as possible. The risk of DVT is about 1:200 and the risk of pulmonary embolism about 1:1000. If you are identified as being a high risk candidate, we may discharge you home on blood thinning injections for up to three weeks in an effort to minimise your risk.

CHEST PROBLEMS

Pulmonary complications such as pneumonia, aspiration and atelectasis (partial collapse of the base of the lungs) can occur after any type of surgery under general anaesthetic. The risk of this complication can be reduced by stopping smoking, early mobilisation after surgery and working with our physiotherapists with chest exercises and incentive spirometry.

INCISIONAL HERNIAS

Incisional hernias are common after open bariatric surgery but thankfully rarer after laparoscopic bariatric surgery. The risk is approximately 1% and if they do occur they tend to be small and easily repaired at a later date.

SMALL BOWEL OBSTRUCTION

The small intestine can get blocked by twists around scar tissue (adhesion) inside the abdomen that can occur after surgery. The other less common cause of bowel obstruction is an internal hernia. These types of obstructions can occur at any time and can occur many years after surgery. The rate of bowel obstruction after a laparoscopic gastric bypass is around 5%. If not treated appropriately and quickly, there is the risk of compromise to the bowels blood supply and if the bowel dies this can lead to perforation and serious complications or even death. Most obstructions after laparoscopic surgery can be successfully repaired laparoscopically.

WOUND INFECTION

These can occur with any type of surgery and even in clean surgery they occur in up to 5% of cases. They may require antibiotics, opening and drainage of the wound with packing. These wounds are then allowed to heal over a longer period of time with dressings as an outpatient. Patients who smoke are at increased risk of wound infection.

DAMAGE TO SPLEEN OR OTHER ORGANS

The spleen lies close to the upper portion of the stomach and can be injured during surgery. Fortunately it is very rare to injure the spleen during laparoscopic surgery and the rate is under 1%. If this was to happen you may require conversion to an open procedure and removal of the spleen. This will be avoided wherever possible. Pancreatitis is a rare but reported complication as is liver injury. These rarely require any surgical intervention.

BOWEL INJURY

Rarely the intestines or stomach can be injured at the time of surgery. If this occurs and is recognised, it will be repaired laparoscopically but the operation may be aborted at that point and rescheduled for a later date. If bowel injury was not recognised at the time then there is a risk of developing life-threatening peritonitis requiring further surgery and probable admission to Intensive Care.

DEATH

The mortality rate in gastric bypass is 1:200. You should recognise that although we do everything possible to minimise the risk, it cannot be reduced to zero. By undertaking bariatric surgery you are exchanging your risk of decreased life expectancy from weight loss related illnesses, i.e. approximately four years for an Australia women, for a short term increase in your risk of death during and immediately after the operation. Although the procedure is carried out with keyhole surgery it is still major surgery and you and your family should realise that any complications of this procedure could result in death.

Risks which apply particularly to laparoscopic gastric bypass include all of the above, but there are additional specific risks related to the procedure.

LEAK

The risk of a leak is about 1% and usually occurs in the first few days after surgery. This can lead to peritonitis, intra-abdominal abscess or even death. At the time of surgery a leak test is performed in the operating theatre to confirm that you do not have a leak before you are transferred to recovery. Drains are inserted around the anastomosis and a further x-ray leak test is performed the day after surgery, before the drains are removed.

The key to successful management of a leak is early recognition and appropriate intervention. However it is not always possible to demonstrate a leak with x-ray techniques and it may be necessary to take you back to theatre for further laparoscopic surgery because a leak is suspected but cannot be demonstrated. This is performed on the better safe than sorry basis.

A leak at the anastomosis (where the stomach pouch is attached to the small bowel) is the most common cause for serious complications after laparoscopic gastric bypass surgery. Treatment usually requires a return to the operating theatre, closure of the leak and insertion of drains. A feeding tube is also usually inserted directly into the bowel. These procedures are usually performed laparoscopically but it may be necessary for a more traditional open approach to be used. Typically in this situation, the patient requires admission to Intensive Care and may or may not require a period on a ventilator. Other complications can result from these leaks such as kidney failure requiring dialysis. It may be necessary to transfer you to a large teaching hospital for further care.

IT IS MY POLICY THAT IF I AM UNHAPPY WITH YOUR POST OPERATIVE RECOVERY, I WILL TAKE YOU BACK TO THEATRE FOR A LAPAROSCOPY. THIS MAY MEAN THAT YOU HAVE A 2nd PROCEDURE WHICH SHOWS NO ABNORMALITY. HOWEVER STUDIES HAVE SHOWN THAT EARLY INTERVENTION FOR COMPLICATIONS PRODUCES THE BEST OUTCOMES.

FOR UNINSURED PATIENTS THIS WILL RESULT IN ADDITIONAL THEATRE AND ANAESTHETIC FEES.

INTRA-ABDOMINAL ABSCESS

Occasionally an abscess can develop without any evidence of leak. This may be due to some intra-abdominal fluid from the time of surgery becoming infected, and it usually presents 5 to 14 days postoperatively. This type of situation usually responds to antibiotic treatment but may require drainage of the abscess under x-ray control and occasionally further surgery which is again usually performed laparoscopically.

STRICTURES

The stomach pouch outlet is purposely made small in order to limit the amount of food that can get of the pouch at any one time. If the outlet is too large, food passes through the pouch quickly and you fail to gain the sensation of feeling full, resulting in you feeling hungry all the time and consuming more food and thus, not losing weight. Natural healing of this new joint results in some

scar formation and some contraction of the opening. For some people this scarring of the anastomosis can cause it to become too small, leading to a stricture. This usually occurs four to eight weeks after surgery. It leads to difficulty in eating and can cause prolonged nausea or vomiting. This is usually treated via a gastroscopy and burn dilatation as a day case. In 80% of cases only one dilatation is necessary, but a small number of patients may require two or more dilatations. Very rarely a further operative procedure is required to resolve this issue.

ULCERS

These can occur in your pouch but occur most often on the small bowel side of the outlet. These ulcers can cause significant problems including perforation, bleeding or the need to revise your bypass. There are three basic causes of the ulcers:

1. Anti-inflammatory medications such as ibuprofen or aspirin.
2. Smoking.
3. Helicobacter pylori infection.

As a result we recommend that you avoid anti-inflammatory medications as much as possible after surgery, stop smoking prior to surgery and we will test for and treat Helicobacter pylori infections at your pre-operative gastroscopy.

VITAMIN MINERAL DEFICIENCIES

As the laparoscopic gastric bypass does involve a degree of alteration in the normal gut anatomy and some malabsorption, this can result in deficiency of a number of vitamins and minerals. It is therefore important that you take regular multivitamins and that you have your blood checked on a regular basis. It is possible for patients who are compliant with their diet and take supplements to develop vitamin deficiencies. The most common would be iron deficiency anaemia or deficiencies in calcium. More rarely vitamin B deficiency can occur along with vitamin A deficiency. We recommend that your GP perform regular blood tests to check for vitamin deficiency.

HAIR LOSS

It is not uncommon to have some thinning or loss of hair in the first few months after bariatric surgery. This is mainly temporary and is related to inadequate protein intake.

HIATUS HERNIA

A hiatus hernia occurs when part of the stomach slips up through the diaphragm into the chest. It is very common in the obese patient and will probably have been noted at your gastroscopy. At the time of your gastric bypass surgery your hiatus hernia may be repaired with simple sutures to the hiatus. Generally the symptoms associated with a hiatus hernia of heartburn and reflux respond best to weight loss rather than anti-reflux surgery.

GALLSTONES

There is an increased risk of developing gallstones after a Roux-en-Y gastric bypass and obviously it is not possible to carry out an ERCP once you have had a gastric bypass. This means that should

you develop complications related to gallstones, you are more likely to require surgery. Whilst this surgery can usually be performed laparoscopically, there is a small risk that you would require an open procedure.

FAILURE TO LOSE WEIGHT

As has been discussed previously, as this is a predominantly restrictive procedure it is possible to cheat the operation and not lose weight.

DIARRHOEA/CONSTIPATION

Diarrhoea is unusual following laparoscopic gastric bypass but as has been described earlier, can be associated with “dumping” syndrome. Constipation is common after bariatric surgery as patients tend not to drink enough liquid. As your liquid and fibre intake improves your tendency to constipation will settle. If necessary, a gentle laxative such as Movicol can be taken.

LARGE FOLDS OF SKIN

This is always a possibility with significant weight loss. There is no reliable way to determine before surgery how much or any this will occur in your case. Age, exercise, speed of weight loss, elasticity of skin all play a role. Plastic surgery procedures are available to correct excess skin problems and you can be referred to an appropriate plastic surgeon and the plastic surgeon also presents at our Patient Support Group.

CONVERSION

Whilst we will always attempt to complete your operation laparoscopically, as this is easier on you and certainly easier from a surgical point of view, it is occasionally necessary to convert to an open procedure. This is a rare procedure but obviously if it occurs will lead to prolonged time in hospital and a longer postoperative recovery.

Dr Philip Lockie
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