



SURGERY GOLD COAST

SAFE PROCEDURES . EFFECTIVE RESULTS

Weight loss surgery is a life-changing decision. Once you have made this decision, it is imperative to involve yourself in the experience. Gain as much knowledge as possible, which will enable you to make the active choice to work with your procedure to lose weight, to maintain the weight loss and regain a healthy lifestyle.

I will inform you of the advantages, drawbacks and possible complications relating to bariatric surgery. The results you obtain from your surgery will also be determined by your own motivation to make the necessary changes in your life.

After surgery, there is a commitment on your part to achieve a good sustainable result. My dietitian, psychologist and exercise physiologist will be available to provide support during this time.

I hope the information provided in this handbook will be beneficial in achieving your goal weight.

Jason Free

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Your First Step

At your initial consultation I will refer you to my bariatric support team - dietitian, exercise physiologist, psychologist and physician for assessment of your suitability for surgery. These assessments are to ensure the best possible outcome for you.

The main objective of obesity surgery is to reduce the energy intake. Procedures such as laparoscopic adjustable gastric band, sleeve gastrectomy, and gastric bypass work by reducing the amount of food able to be eaten and have minimal interference with the body's natural absorption of vitamins and nutrients.

Weight loss surgery is performed laparoscopically. Five small incisions are made in the abdominal wall to allow access for the laparoscopic instruments to manipulate the stomach in various ways.

Your Surgical Options

The 3 commonly performed weight loss procedures are Sleeve Gastrectomy, Gastric Bypass, and Laparoscopic Adjustable Gastric Band. All of these are performed via laparoscopy. Some people will be more suited to a particular procedure for various reasons.

Gastric bypass (RYGB) involves dividing the upper part of the stomach to make a small pouch about 20-30mls size. To this the small intestine is attached thus bypassing most of the stomach.

Laparoscopic Sleeve gastrectomy (LSG) requires surgical removal of the left side of the stomach. This results in a stomach being converted from a large sac to a small tube shaped structure decreasing the amount of food that can be eaten.

Gastric Banding (LAGB) involves an adjustable band being placed around the upper part of the stomach, making a small pouch. The tightness of the band can be adjusted via an access port which is placed the skin. This varies the amount of restriction the band places on the stomach.

We will have a thorough discussion regarding the best options for you and the long term effects. You must be aware of the pro's and con's of all the options before considering the surgery.

You can view descriptions and video's of these procedures by clicking on the appropriate link on the website at www.surgerygoldcoast.com.au

Laparoscopic Gastric Bypass

There are various styles of gastric bypass, the most common is the Roux-en-Y gastric bypass. This procedure is the most common procedure worldwide and is gaining popularity in Australia due to its more robust and longer term effect on weight loss. It is the procedure of choice following a failed or complicated gastric band. The procedure takes about 1 to 1 ½ hours for a primary procedure, it takes about 2 hours for a revisional procedure.

The procedure involves dividing the upper portion of the stomach and leaving a small pouch of about 30ml's capacity. This creates a restricting effect and dramatically reduces the amount of food able to be eaten. Part of your small bowel is then attached to this small pouch of stomach, therefore bypassing the majority of the stomach and upper part of the small bowel where the digestive juices are formed. This leads to slightly decreasing absorption of carbohydrates and fat. This procedure has the benefit of providing the most robust long term weight loss and has the greatest effect upon improving diabetes. Some people after a gastric bypass procedure are able to eliminate all diabetic medications within days of the operation.

There are various other types of gastric bypass such as the omega loop bypass, fixed ring bypass, and short limb gastric diversion. These options would be specific to certain patients for various reasons.

It is important to have long term follow up with your surgeon or an appropriately trained associate after a gastric bypass operation.

Laparoscopic Sleeve Gastrectomy

This procedure involves resection of about 85-90% of the stomach, converting the stomach from a large bag into a narrow tube, thus decreasing the amount of food that can be eaten. In many people this procedure also has the effect of reducing appetite. You should feel full after eating only about a cup of food.

This procedure takes about 30-40 minutes.

Since a large part of the stomach is permanently removed, this procedure is irreversible.

A sleeve gastrectomy provides extremely good rapid weight loss. We expect to see about 70-75% excess weight loss. This means if your starting BMI is about 45 and average height, your weight could drop from 135kg down to about 90kg.

Laparoscopic Adjustable Gastric Band

A gastric band involves placing a band around the upper part of the stomach to create a small pouch. This restricts the intake of food to varying degrees depending on how much the band is filled. It is intended on providing a feeling of fullness. The band can be adjusted (increasing or decreasing the volume) to vary the amount of restriction of

food entering the stomach. After the operation we first fill the band about 2-3 weeks following surgery. We then monitor your eating ability and feeling of restriction and adjust the band every few weeks afterwards until an acceptable level is obtained. Every person varies on how frequent and for how long the band needs to be adjusted until a perfect level is achieved.

It is critical to understand for patients undergoing this procedure that the gastric band needs regular attention for it to work properly. Achieving the correct amount of restriction is a fine-tuning process to maintain adequate weight loss without causing too much restriction and leading to problems and a poor quality of life. Having a gastric band requires you have to a life-long commitment to its maintenance.

The benefit of a band is that the stomach is not removed or stapled as with other weight loss procedures.

Revisional weight loss surgery

You may have had a weight loss procedure in the past which has led to insufficient weight loss. Or you may have had a procedure which has led to problems.

We have noticed in recent years that many patients have experienced insufficient weight loss following sleeve gastrectomy and laparoscopic adjustable gastric banding. There are a variety of reasons for this and we thoroughly investigate potential factors and can usually provide further assistance. Sometimes people do require a revisional procedure to ensure optimum weight loss.

We are happy to discuss with you your various options amongst our team of experts.

Associated Surgical Risks

General

During your stay you will be cared for by a huge team of people, including the surgeon, anaesthetist, operating theatre staff, ward nursing staff, physiotherapists, dietitians as well as your cardiologist, endocrinologist, and respiratory physician. All of these people are aware of the potential complications of surgery and have the shared focus of preventing problems.

All operations have risks however, and you need to fully understand the consequences of these before having the procedure. Major risks are rare, and occur in less than 2% of patients. I will discuss risks and complications associated with the type of surgery you are undertaking but please make sure you clarify any questions or concerns that you may have before proceeding. Your signature on the consent form indicates your understanding of these matters and the desire to proceed.

Many of the risks during surgery are general rather than weight specific. However, because of your weight you may be at greater risk of suffering complications from the operation. Most adverse effects following the operation are minor and do not affect your recovery or later outcome. We take great care at reducing the likelihood of all risks, and extra measures if there is a specific risk you are more likely to encounter.

Risks associated with the operation are increased with:

- Age
- Weight
- Previous reaction to anaesthesia
- Presence of disease (whether or not this is directly related to your weight problem)
- Heart condition
- Pre-existing lung conditions
- Smokers
- Sleep apnoea
- Diabetes or hypertension

Some risks associated with bariatric surgery include:

- Deep vein thrombosis (pain in calf, swelling)
- Pulmonary embolism (a clot, shortness of breath)
- Pneumonia
- Acute respiratory distress syndrome
- Splenectomy (injury to spleen)
- Post-operative bleeding / infection
- Small bowel obstruction
- Late formation of gallstones
- Nausea and vomiting
- Injury to organs near stomach
- Injury to major blood vessels

Procedure Specific Risks

Risks of Laparoscopic Sleeve Gastrectomy

Laparoscopic Sleeve Gastrectomy is generally very safe and performed extremely commonly in Australia. Nevertheless you need to be aware of it's potential complications. The most concerning few are as follows:

- *Staple line Leak*. The major risk we worry about after a sleeve gastrectomy is a leak at the staple line. This is extremely rare (occurring in less than 1% of

people) after a primary procedure, however it has the potential to cause major problems. Some people referred to us after a leak have spent months in hospital and have required multiple operations and other procedures. It is critical to be aware of this risk and be aware of the potential consequences before having the operation.

- Reflux. Some people experience more reflux type symptoms following a sleeve gastrectomy. It is extremely important to discuss with us if you have reflux before having the procedure.
- Stricture. This involves a part of the sleeve becoming too tight, often as a result of excessive internal scarring. This is extremely uncommon (occurring in less than 2% of people) however it does often require further interventions, usually an endoscopy to stretch open the stricture. Uncommonly it requires a second operation.
- Functional sleeve failure. Occasionally we see people who have had a sleeve gastrectomy and have symptoms of a stricture despite investigations showing no blockage of the sleeve. This can resolve spontaneously however you may require further procedures to resolve your symptoms.

I encourage you to ask questions about these risks when you come in to see us for a consultation.

Risks of Laparoscopic Gastric Bypass Surgery

Gastric Bypass is becoming a much more commonly performed procedure in Australia. It is also generally very safe but has a different risk profile compared to a Sleeve gastrectomy. The concerning risks are as follows:

- Leak. As for any procedure involving stapling the stomach there is a chance of a leak. Compared to a sleeve gastrectomy we have noticed that people who have a leak after a gastric bypass generally do not become as sick. You may still require further operations and interventions however it is uncommon that you would stay in hospital for as long.
- Stricture. Where we join the stomach pouch to the small intestine has the potential to become narrow. This most often requires stretching with an endoscope, and uncommonly requires re-operation.
- Dumping syndrome. This occurs after you have a very sugary meal. The high load of sugar entering the small intestine can cause you to feel flushed, dizzy and have abdominal cramps. This is usually short lived after a meal and over time it tends to go away.
- Internal hernias. Since we divide the small bowel and attach it to the stomach, there are certain gaps in your abdominal cavity in which part of the intestine get stuck in, and can get blocked or twisted. We take care to close these gaps however as you lose large amounts of weight they have the potential to open up again, so at any time following a bypass you are at a small

risk of developing these hernias. Usually these are fixed with another laparoscopy to put the bowel back in it's correct position and repair the gap.

- Marginal ulceration. Some people experience ulcers where we join the stomach pouch to the small intestine. This is uncommon in most people however much more likely if you are a smoker. This can be relieved by taking anti-acid medication, it is extremely rare that a perforation can result from the ulcer. We ask that you take anti-acid medication for a month following the bypass operation. If you continue to smoke after the operation you will need to take it life-long.

I encourage you to ask questions about these risks when you come in to see us for a consultation.

Risks of Laparoscopic Adjustable Gastric Band

Gastric banding is generally very safe since there is no stapling or division of the stomach. It has it's own risks since we're introducing foreign material into your abdomen. The most concerning risks include:

- Infection of the band or port. This is uncommon however often it requires removing the band.
- Gastric slip. Despite fixing the band in position with stitches, sometimes the stomach below the band may slip upwards through the band and cause symptoms such as severe reflux, food intolerance, or pain. This requires an operation to reposition the band or removal. In the worst case the stomach may become completely blocked to the point you cannot tolerate anything orally. This requires an emergency operation. It is extremely rare but possible that the stomach can lose it's blood supply and die, requiring you to have a complete stomach resection and reconstruction.
- Pouch dilatation. The small stomach pouch above the band can stretch over time leading to an enlarged pouch. This is detrimental as it gives poor restriction of food and can lead to vomiting and reflux symptoms. To treat pouch dilatation we release fluid from the band for a period of time. This may give the stomach a chance to relax and recover. If the problem persists after this trial, re-operation with re-positioning of the band is often possible.
- Oesophageal dilatation. Like the pouch dilatation, some people after many years can have their oesophagus distend. Unfortunately we have noticed that this is less amenable to just releasing pressure of the band, as the problem almost always returns. It usually requires removing the band and consideration to convert the band to another weight loss procedure such as gastric bypass.
- Band intolerance. Despite the band being positioned perfectly and having a normal function, some people just can't tolerate the feelings they get. They can get frequent vomiting and reflux with the band and find eating foods difficult much of the time. Multiple attempts at adjusting the band may not

relieve the effect, and ultimately people have the band removed and convert the band to another weight loss procedure.

- Erosion of the band. Rarely the band around the top of your stomach can actually erode into the inside of the stomach. Sometimes people experience abdominal pain with this however surprisingly many people have no symptoms. Because the restriction is lost, often people will regain weight if this occurs. An erosion requires the band and port to be removed and the stomach repaired.

- Leak of the band or port. Sometimes the band or the port may leak, and multiple adjustments to fill the band have no effect. The band or the port will need to be replaced.

- Flipped port. Occasionally the access port flips over and cannot be adjusted, this requires a simple operation to put it back in the correct position under the skin.

It has been noted worldwide in recent years that a large proportion of people are requiring reoperations relating to their band, and are also experiencing poor quality of life relating to the symptoms of the band.

Much of my work recently has involved converting the band to gastric bypass procedure. In 78% of our conversions we are able to perform this as a single stage procedure. Occasionally due to excessive scarring relating to the band it is safer to remove the band and perform the gastric bypass about 8-12 weeks later.

Risks of Revisional weight loss surgery

The risks of converting one type of procedure to another are much higher than a primary procedure. This is due to the scarring caused around the stomach from the previous operation. The specific risks relate to the specific procedure you are converting to, however overall the risks of leak are higher. The increased risk is mainly the complications in the short term.

It must also be understood that a revisional weight loss procedure often does not have as good longer term weight loss than primary procedures.

There are certain procedures which may be impossible or deemed unsafe depending on what problems you have had in the past. Revisional weight loss surgery operations are extremely patient specific and often take slightly longer than primary procedures.

Bariatric Team Members

Carol Newton – Dietitian

Carol will perform a dietary assessment prior to your surgery and will explain the nutritional requirements needed after surgery, give appropriate literature to assist you with your weight loss, and be available to give support and guidance in achieving your ideal goal weight in the critical period following surgery.

Ongoing assessments should be carried out during your twelve month follow up period.

Nathan Reeves – Exercise Physiologist

Nathan is an accredited exercise physiologist who will assess and provide you with tailored physical activities for your individual needs. All essential handouts will be provided to assist you in your ongoing physical activities.

It is recommended that you have a post-operative appointment in one month to review your programme and then a final visit at 10 weeks for an upgrade of your physical activities requirements.

Moyna Glenn-Goold – Psychologist

Moyna is a registered psychologist, a Fellow of the Australian College of Clinical Psychologists, and a Member of the Australian Psychological Society.

Moyna will assess your emotional and motivational readiness to implement a permanent lifestyle change that leads to weight loss.

Post surgery counselling will provide the opportunity for you to address issues that may block progress that previously led to weight gain. These issues may include lack of awareness, low self-esteem, low confidence level, relationship difficulties, addictions, and the use of ineffective coping strategies. Significant behavioural changes require the acquisition of new coping skills to decrease the reliance on food to address emotional needs.

Preparing For Surgery

Two weeks pre-operatively you are required to commence a dietary supplement called Optifast, which can be taken as shakes, soups or desserts.

Optifast will totally replace your normal food intake along with a cup of low-starch vegetables daily and a small pear (optional).

This dietary supplement aids in reducing the liver fat content before your surgery. For the first few days you may feel hungry, then your body will adjust and it will become easier to remain on the Optifast.

Recommended low starch and green vegetables:

Asparagus	Cabbage	Lettuce	Silverbeet
Alfalfa sprouts	Capsicum	Leeks	Snow peas
Beans	Carrots	Mung beans	Spinach
Bok choy	Cauliflower	Mushrooms	Squash
Broccoli	Cucumber	Onions	Tomato
Brussel sprouts	Eggplant	Radish	Watercress
Celery	Garlic	Shallots	Zucchini

Avoid vegetables such as corn, green peas, legumes, lentils, potato, pumpkin and sweet potato.

It is recommended that when preparing your Optifast that you always use chilled water, even adding ice cubes and blend well in a blender to get the “milkshake” effect.

Pre-Admission Clinic

You will be asked to attend Pindara Private Hospital pre-admission clinic 1-3 days preceding your surgical procedure to assess your current health status and to perform any necessary investigations to expedite your recovery and reduce the length of stay in hospital.

This attendance is bulk billed and there is no associated out of pocket expense.

Hospital Admission

Pre-operative fasting (“nil by mouth”) will be required 6 hours prior to surgery (this means you must have nothing to eat or drink, including water).

If you take regular medications, please ascertain whether this needs to be taken on the day of surgery. If essential medications are required, this may be done with a sip of water. Bring all regular medication with you to Pindara Hospital.

You will meet with the specialist anaesthetist, who will do a pre-anaesthetic assessment prior to your surgery being undertaken.

We expect that you would only need to stay in the hospital for 1-2 nights. If there are any problems or concerns you may need to stay longer.

Post-Operative Instructions

Following surgery your abdomen may be tender and bloated, select clothing that is loose around the waist and shoes that can be slipped on to avoid bending over.

- Pain will be well controlled with painkillers and you will be able to get up and move around a few hours after surgery.
- You are encouraged to walk around as soon as possible after the operation, even the same day after you wake up. You may need some help initially to get out of bed. People after an operation who walk early do tend to have a shorter hospital stay than those who don't.
- On the first day after the operation we ask you to stay nil by mouth. You can have ice to suck after surgery. An x-ray is often organised prior to discharge to assess the anatomy of the stomach after the procedure. This test involves drinking contrast liquid, which shows up as white on a plain x-ray and is non-toxic.
Before discharge you will be seen by the dietitian who will explain to you the post-operative dietary regimen for the next six weeks. Refer to "nutritional guidelines" on **page 15**. We will provide you with written information about your diet for the weeks following surgery.
- As with all laparoscopic surgery, shoulder tip pain can be an issue for some patients. This can be settled with analgesia, peppermint water and heat on the shoulder.
- Prior to discharge your wounds will be checked and any dressings soiled from seepage will be replaced.
- Steri strips will stay in situ for 10 days or until they start to fall off. You may shower with them on but pat dry afterwards.
- You should not drive yourself home from the hospital.
- We encourage you to be as active as possible during your recovery, avoid swimming for 2 weeks and no heavy lifting (weight limit of 3-5 kg) for 2-4 weeks.
- Ring the Practice if you experience high temperatures, shortness of breath, excessive bleeding, redness around the wound site or purulent (pus-like) discharge, pain in calves, an inability to pass urine or are unable to keep fluids down.

After Hours

If you need to present to Pindara Emergency Centre, remember that this is a private emergency centre and a fee will be charged for your consultation. This fee will depend on the length and complexity of the consultation; any associated procedures, investigations, consumables or medications required. A loading also applies after-hours, weekends and public holidays.

Generally, Medicare will cover part of the fee but there is a gap, which you cannot claim back.

Life After Surgery

Post-operative Period

After your operation, your stomach will be swollen and eating will increase gradually to give the stomach time to adjust to the surgery.

With a normal recovery, you should be able to leave hospital 1-2 days following your surgery. You may be off work for 1-2 weeks. If you require a medical certificate, please contact my reception staff.

The ward clerk will make a post-operative appointment for 2-3 weeks at my rooms prior to your discharge.

If you have a gastric band:

At 2-3 weeks, I may perform an adjustment. Adjusting the band is performed without further surgery; simply by inflating or deflating the band with a saline solution via the small 'port' which has been inserted under the skin during surgery.

These adjustments are made to assist you with your individual optimal weight requirements. In some instances, your band may be adjusted under ultrasound or x-ray guidance, this is often the case if your reservoir is difficult to find, or if it has moved slightly.

Following an adjustment you will be asked to drink a glass of water before leaving the rooms to ensure the band is not too tight.

Occasionally patients may experience problems some days after an adjustment and for the next few days may only tolerate liquids, this will settle and you will return to a normal diet. If not you must return to see me, and may need some fluid removed.

The amount you can eat at each meal varies according to how your band is adjusted and depends on your own metabolism. You may even find that this varies between morning and evening. You will soon get accustomed to your new eating habits and find what is best for you.

It is important to:

- Take care when using anti-inflammatory medications. If you feel any stomach pain, stop treatment immediately and tell your GP about it.
- Make healthy food choices – your procedure will help you control your portion sizes, however, the food choices are up to you.

- Maintain fluid intake between meals. Do not drink too quickly and try to avoid alcoholic, carbonated and sweet drinks.

If you experience problems with vomiting or regurgitation one or more of the following may be the cause:

- either eating too much
- too quickly
- bites are too big
- not chewing your food enough
- swallowing too quickly
- band too tight

Should you experience problems with a particular food, try it again before eliminating it as a “difficult” food. Sometimes it can be the way it has been cooked, or the way you have eaten it that has caused the problem.

Finding “difficult” foods will only happen through trial and error, so do not be afraid to experiment with the various foods, just go slowly and take your time. Try to focus on your meal and not be distracted by television or other stimuli.

With blocked food, you may notice discomfort high in the centre of your chest (at the bottom of the sternum or breast bone). Sometimes this can be accompanied by excess saliva in your mouth, both of these symptoms could indicate food blockage.

Your food may go down more easily at certain times of the day. For some people, it is better in the evening than in the morning.

If food keeps coming back up or “gets stuck”, you must return to see me. *If nothing (not even water) goes down, phone the Practice immediately or present to the nearest Accident and Emergency Department after hours.*

NOTE - *if you are not drinking any fluids you can become dehydrated, and urinary output will be decreased. This situation needs to be rectified as soon as possible.*

Late Complications

Patients who have undergone bariatric surgery can experience late complications and it is important that you are aware of them:

- Gallstones can often occur in the obese or following rapid weight loss. Approximately eighteen percent of patients who have not already had a cholecystectomy do so at the time of surgery.
- Hernia - sometimes a hernia can form along the incision line. A hernia is a weakness in the abdominal wall allowing the abdominal organs to protrude. This is correctable by surgery.

- Infection of the wound - this is uncommon and may need treatment via drainage of the infection and antibiotics. Please discuss any of these problems with me.
- Flabby skin - this can occur especially if you have lost a lot of weight or lose it too quickly. It usually occurs on the arms, breasts, abdomen and thighs. Exercising during weight loss can reduce the amount of flabby skin and help tone up your body. About twenty percent of patients have surgery for this condition.

Once your weight loss has ceased, which is usually 2 years after surgery, your weight should remain fairly stable. However, sometimes your weight may start to increase again. This could be due to incorrect eating over a period of time, fluid leak in the case of a band. In the case of a sleeve gastrectomy it may be due to stretching of the stomach over time, and you may require another procedure. In which case, you should consult me if you are concerned about any abnormal weight increase that is occurring.

Birth Control / Pregnancy

Following bariatric surgery, many women experience a boost in their fertility and return of ovulation. This renewed fertility increases the chance of getting pregnant. In order to prevent an unplanned pregnancy during the 18 month weight loss period you should also plan for effective reliable contraception.

The reason to wait at least 18 months before getting pregnant is that this period is when most weight loss occurs and the time when consuming adequate nutrition is challenging even without the added concern of pregnancy. Becoming pregnant during this time would not only reduce the weight loss benefits of your surgery but it could potentially jeopardize the health of you and the developing child.

Nutritional Guidelines

The key to successful weight management is a combination of:

- Reduced meal size
- Regular eating plan of 3-4 small meals a day
- All meals should include protein. Reduce your intake of carbohydrates and unsaturated fats in a healthy balance
- Re-education of eating habits to minimize hunger and food cravings and feel satisfied after eating

Bariatric surgery reduces stomach size so the amount of food in each meal is limited. This helps to control feelings of hunger.

The nutrition plan is important in weight loss to ensure all nutritional needs are met and the rate of weight loss is maintained. Be patient as the good eating practices you learn, will promote better health and help you achieve your personal weight goals.

Keep in mind these important points:

- The quantity of food your stomach can hold will be reduced. Your daily meal plan will consist of 3-4 small meals each day.
- Fluid intake is very important so drink water every 1-2 hours. Remember, ½ to 1 cup quantity.

How much?	Small amount - (½ to 1 cup each meal)
How often?	More often - 3 to 4 mini-meals every day

- Choose healthy balanced meals for good nutrition.
- Avoid fried and fatty foods as these contain many calories.
- Have your eating plan and weight progress regularly reviewed by the dietitian to make sure your nutritional intake is adequate and goals are being achieved.

A mistake to avoid - if you puree or blend everything you eat, the food becomes liquid and is not slowed down by whatever procedure you've had. You will not feel full and are able to ingest large amounts of calories. Similarly, if you eat foods such as sweet biscuits, ice-cream, chocolate, cheese or other melt in your mouth foods, the band will not have an effect on these.

Dietary Plan (post- Surgery - first month)

The procedure you've had will restrict the amount of food you can eat. Over the first month, the consistency of the food is altered to allow the body to adjust to the gastric band.

Start with fluids for the first 2 weeks, then between 2-4 weeks you should be consuming soft/pureed foods. After 4 weeks you can progress to normal diet. Good nutrition and balance is very important as the quantity of food is small but you still need to obtain all the nutrients for good health. Make sure to include water between meals and also in small amounts.

Everyday will be slightly different until you are fully healed and find you can tolerate most foods. It is normal for your hunger to return at some point during this recovery phase, before your next appointment for your first band adjustment.

It is essential that you stick to the recommended portion sizes of no more than a cup of food at a time, otherwise you risk stretching your new smaller stomach.

Weeks 1-2

You will start on fluids in ½ cup or 120 ml quantity every 3-4 hours. Proceed slowly at first after the operation to avoid damaging the stomach pouch.

Free Fluids:

1. Free fluids are anything you can suck through a straw.
2. Drink small amounts of water in ½ cup amounts up to 1½ litres a day.
3. This water is important to replace lost fluids. You will go home from hospital on free fluids for the first 2 weeks.
4. Nutritional supplements such as Optifast or hospital Sustagen provide additional vitamins and minerals and are a complete meal substitute.

Weeks 3-4

Thickened foods to include puree, soft or mashed foods. Soft foods like mashed vegetables and scrambled egg are suitable. This will help if you are feeling a little hungry. The quantity remains ½ to 1 cup. Continue with the water.

- Proceed slowly and keep bowl size to ½ to 1 metric cup. Use a small bowl, cup, and plate, so you get used to the smaller size of the meal.
- You should have a good routine of 3-4 small meals a day.
- Choose a variety of nutritious foods. Prepare meals and blend or mash them to a suitable consistency. Refrigerate or freeze left-overs for another meal.
- No fried or crumbed foods.
- Keep up to the 1 litre or more of water daily, in 120 ml serves, between meals. This is very important for hydration.

Week 5

By week 5 you are ready to reintroduce normal foods. The meal pattern of 3-4 small meals should be well established and you can now add more variety.

The amount must continue to be small at about 1 cup quantity for each meal. Balance the meals with protein and small amounts of unsaturated foods (carbohydrates).

MAKE AN APPOINTMENT FOR REVIEW BY THE DIETITIAN

RECOMMENDED DAILY EATING PLAN

- 1 cup amount for 3-4 small meals spread out during the day.
- Water - 1½ litres or more for the day, away from meal times.

BREAKFAST	MID- MEAL	LUNCH	DINNER
1 cup cereal - made soft with milk [weet-bix, Special K, porridge]	½ cup fruit OR ½ cup yoghurt	½ pita bread with filling OR 1 cup soup	1 cup total pasta with Bolognese sauce Chicken casserole and rice
OR 1 cup blended fruit smoothie with yoghurt / milk	OR Small crackers and cheese – cheddar, cream cheese spread	OR Open grill sandwich (grain bread) include protein – salmon, cheese, ham	Thinly sliced lamb with mashed potato and vegetables Fish and vegetables
OR 1 slice of grain toast and avocado and tomato			
Baked Beans			
Egg – poached, scrambled			

Frequently Asked Questions

Your surgeon will determine and explain what you need to do before having obesity surgery as every individual is different. These are answers to some of the more common questions regarding tests and procedures you may be asked to do in preparation for your surgery.

Q: What are the routine tests before weight loss surgery?

A: You may be referred to a Physician or Cardiologist for relevant evaluation and this may include an echocardiogram, stress test and ultrasound. It will be necessary for you to be assessed by a psychologist, exercise physiologist and a dietitian prior to your surgery. Certain basic tests, such as a full blood examination (FBE) and chest x-ray are performed as part of your initial assessment.

Q: What is the purpose of all these tests?

A: An accurate assessment of your health is needed before surgery to minimise the chance of complications and this will be determined by your surgeon.

Q: What is done to minimize the risk of deep vein thrombosis (DVT) / pulmonary embolism (PE)?

A: Because DVT originates on the operating table, generally, patients are treated with TED stockings, calf pumps and anticoagulants and this therapy will continue throughout your hospitalization. The other major preventive measure involves getting you to walk around as soon as possible after the operation to restore normal blood flow in the legs.

Q: Does laparoscopic surgery decrease the risk?

A: Laparoscopic operations carry the same risk as does an open operation. The benefits of laparoscopic surgeries are typically less discomfort, shorter hospital stay, earlier return to work and reduced scarring. Less pain may decrease the risk of chest infections.

Q: Will I have a lot of pain?

A: Every attempt is made to control pain after surgery to make it possible for you to move about quickly and become active. This helps avoid problems and speeds recovery. Often several drugs are used together to help manage your post-surgical pain.

Q: How long will it take to recover after surgery?

A: Weight loss surgery is performed laparoscopically, and we expect you would spend 1-2 nights hours in the hospital. It takes most patients about a week to return to work and to resume exercising. In the case of open surgery or if there are complications, recovery may take longer.

Q: How soon will I be able to walk?

A: Almost immediately after surgery doctors will require you to get up and move about. Patients are asked to walk or stand at the bedside post-operatively (on the night of surgery), take several walks the next day and thereafter. On leaving the hospital, you may be able to care for all your personal needs, but will need help with shopping, lifting and with transportation.

Q: How soon can I drive?

A: For your own safety, you should not drive until you have stopped taking narcotic medications. Most insurance companies will not cover an accident up to 48 hours after a general anaesthetic. Consult your doctor as to when you are able to drive.

Gastric Bands:

Q: Does a gastric band require frequent follow up visits after surgery?

A: Check-ups are a normal and a very important part of the gastric band follow-up.

Q: How is a band adjusted?

A: The surgeon can make adjustments in an outpatient clinic or office. This involves a fine needle being passed through the skin into the access port to add or subtract saline. This process most often takes only a few minutes and most patients say it is nearly painless. On occasion it will be necessary to carry out adjustments in the X-ray Department of a recommended Radiology Practice. They are carried out there so the access port can be clearly seen.

When x-rays are used, your reproductive organs should be shielded. Sometimes local anaesthesia may be needed.

Q: Do I have to be careful with the access port just underneath my skin?

A: There are no restrictions based on the access port. It is placed under the skin in the abdominal or chest wall, and once the incisions have healed it should not cause discomfort or limit your movements or any physical exercise. The only sensation you may have from the port is when you go in for adjustments. If you feel persistent discomfort in the port area, let us know as soon as possible.

Q: Is it true that the band seems "tighter" in the morning and during menstruation for women?

A: This is a fairly common feeling, there is a high percentage of fluid in the body which gravity sends toward the feet as the day progresses and after laying flat for a few hours it re-distributes the water right through the body making the restriction of the band feel tighter. For women, fluid retention just before or during menstruation has a similar effect.

Q: Will I feel sick a lot with the band in place?

A: The band limits food intake. If you feel nauseated or sick on a regular basis, it may mean that you are not chewing your food well or that you are not following the diet rules properly. However, it could also mean that there is a problem with the placement of the band so you should contact us if this problem persists. Vomiting should be avoided as much as possible. It can cause the small stomach pouch to stretch. It can also lead to slippage of part of the stomach through the band, which would reduce the success of the operation. In some cases, it would also require another operation.

Q: Can the band be removed?

A: Although the band is not meant to be removed, it can be. This is done laparoscopically. The stomach generally returns to its original shape once the band is removed. After the removal, though, you may soon go back up to your original weight or even gain more. Procedures such as gastric bypass can be done when a band is removed to ensure ongoing weight loss.

Q: Is band slippage rare or common?

A: Unfortunately, the frequency of lap band slippage in post-surgery patients may be 2-3 years.

Q: How is a slipped band diagnosed?

A: Diagnosis is made based on the history of the patient. A patient who has been going along fine, with no problems and then suddenly develops reflux symptoms or symptoms of a too-tight band will most likely have a slipped gastric band. This diagnosis is confirmed by endoscopy and barium swallow examination.

Q: How is a slipped band fixed?

A: A slipped Band needs to be fixed with another operation. The gastric band has to be dissected (cut) out, all the sutures (stitches) removed and the position of the stomach made right. The band can either be repositioned or a new band may occasionally need to be put in.

Q: What happens if the band slips again?

A: One could try to fix the slip again by another operation, but most surgeons would agree that, for whatever reason, the band is just not working for that particular patient and should be removed. Procedures such as gastric bypass can be done when a band is removed to ensure ongoing weight loss.

Q: Can I eat anything in moderation?

A: After your stomach has healed, you may eat most foods that do not cause you discomfort. However, because you can only eat a little it is important to include foods full of important vitamins and nutrients such as those recommended by the dietitian. If you eat foods that contain lots of sugar and fat or drink liquids full of “empty” calories, such as milkshakes, the effect of the weight loss operation may be greatly reduced or cancelled.

Q: How much weight will I lose?

A: Weight-loss results vary from patient to patient, and the amount of weight you may lose depends on several things. You need to be committed to your new lifestyle and eating habits. The type of food that patients are able to eat will vary in each individual. Obesity surgery is not a miracle cure, and the kilos will not come off by themselves. It is very important to set achievable weight-loss goals from the beginning. A weight loss of 2 to 4 kg a month in the first year after the operation is very common. Twelve to eighteen months after the operation, weekly weight loss is usually less. Remember that you should lose weight gradually. Losing weight too fast creates a health risk and can lead to a number of problems. Your main goal is to have weight loss that prevents, improves, or resolves health problems connected with severe obesity.

Q: Does weight loss surgery limit any physical activity?

A: There is no affect or hampering physical activity including aerobics, stretching and strenuous exercise.

Q: Will I need plastic surgery for the surplus skin when I have lost a lot of weight?

A: That is not always the case. A good majority of skin will re-shape itself, though this depends on your age, your rate of weight loss and where you were carrying your weight to begin with. It is recommended that you do not consider plastic surgery for the first 2 years following your weight loss surgery. Give your body some time to adjust to the new weight for a period of time. Not everyone will undergo plastic surgery, it is very much an individual choice.

Q: Will I feel hungry or deprived with the band?

A: Weight loss surgery makes you eat less and feel full in two ways – by reducing the capacity of your stomach and increasing the time it takes food to get through the digestive system. After a small meal, the amount of which varies from person to person, you should feel full. If you follow the nutritional guidelines when you choose your food and then chew it well, you should not feel hungry or deprived.

Q: Will I need vitamin supplements after weight loss surgery?

A: It is extremely rare that anyone develops vitamin deficiencies after a weight loss operation. We do encourage you to take multivitamins however as you may dramatically reduce the intake of usual foods which contain the vitamins and minerals you would have previously been eating. We do notice that a large proportion of people we test before a weight loss procedure already are slightly deficient in certain vitamins. There is no harm in taking a daily vitamin supplement.

Q: What about other medication?

A: You should be able to take prescribed medication. You may need to use capsules, break big tablets in half or dissolve them in water so they do not get stuck in the stoma and make you sick. You should always ask the doctor who prescribes the drugs about this.

Q: Will I be able to stop taking some medications after weight loss surgery?

A: You may notice that after a weight loss operation you may need less diabetic and antihypertensive medication. This can occur extremely quickly, such as within hours or days especially with gastric bypass surgery in the case of diabetic medications. You may need to dramatically reduce your diabetic medications, and often eliminate them completely within days. After most weight loss operations you will usually be able to reduce or eliminate the amount of antihypertensive medications you may be taking, this effect usually takes weeks. We will liaise with your GP or specialist dealing with these medications following the surgery.

Q: What if I go out to eat?

A: Order only a small amount of food, such as an appetizer. Eat slowly. Finish at the same time as your table companions. You might want to let your host or hostess know in advance that you cannot eat very much.

Q: What about alcohol?

A: You can drink alcohol, however keep in mind that alcohol is very high in calories and will not be limited by any weight loss procedures. After weight loss surgery most people find that their tolerance for alcohol drops and that drinking a smaller amount has the same effect as if you had drunk more. Alcohol also breaks down vitamins. Carbonated beverages such as beer and sparkling wine will be more difficult to drink as it will expand the stomach slightly giving you a false feeling of being full. An occasional glass of wine or other alcoholic beverage, though, is not considered harmful to weight loss.

Q: Will I suffer from constipation?

A: There may be some reduction in the volume of your stools, which is normal after a decrease in food intake because you eat less fibre. This should not cause you severe problems. If difficulties do arise, let us know as soon as possible. Fibre supplements may be needed.

Glossary Terms

Bariatric Surgery - the word "bariatric" comes from the Greek word baros, meaning weight. Bariatric surgery is another word for weight loss surgery, which is surgery designed to treat severe obesity.

Body Mass Index - also called BMI. It is equal to your weight (in kilograms) divided by the square of your height (in meters).

Deep Vein Thrombosis (also called DVT) - this is another name for blood clots that form in the deep veins of the legs and pelvis. People recovering from abdominal surgery are at increased risk for these clots, as are overweight individuals.

Diabetes - high blood sugar, also called diabetes mellitus. Diabetes can occur when your body doesn't make enough insulin to keep your blood sugar controlled. This is called Type I diabetes. In overweight individuals, diabetes is often caused by insulin resistance, where insulin levels may be elevated, but the body's tissues are resistant to its effects. This is also known as Type II diabetes.

Dumping Syndrome - this occurs to gastric bypass patients after eating sweets or carbohydrates. They may feel queasy and sweaty, and may suffer from diarrhoea afterward. This is an intentional side-effect of the operation which has been called the "post-op police officer," since it discourages sweet eating, and encourages weight loss.

Gastric Banding - a restrictive operation in which a plastic band is placed around the upper portion of the stomach.

Gastric Bypass - also called the "Roux-en-Y Gastric Bypass. (RYGB)" It involves the creation of a small stomach pouch which is connected to a Y-shaped limb of small intestine. It causes weight loss mainly through restriction of food, there is a very small component of malabsorption.

Heart Disease - heart disease takes many forms. Usually, heart disease occurs due to inadequate blood flow to the heart muscle. This occurs when the arteries that supply the heart muscle (the coronary arteries) become partially or completely blocked. Obese people are at increased risk of heart disease due to their higher rates of hypercholesterolemia, diabetes and hypertension.

Hypercholesterolemia - the medical term for high blood cholesterol. Many patients find that their blood cholesterol decreases significantly after weight loss surgery.

Hypertension – the medical term for high blood pressure. Hypertension is associated with severe obesity. Many individuals requiring medication for hypertension are able to decrease or eliminate these medicines after surgically-assisted weight loss.

Incisional Hernia - when an abdominal incision does not heal properly, a defect in the fascia (the strong tissues that surround the abdominal muscles) may form. The intestine, or other abdominal organs, may then protrude through this defect. This may cause pain or discomfort, in addition to a visible bulge. If the intestines become stuck in the hernia, this is called an incarcerated hernia. If the edges of the hernia squeeze the blood supply to the intestine, the intestine can become strangulated; this is a surgical emergency!

Laparoscope - a narrow surgical telescope, usually 5 mm to 10 mm in diameter that can be inserted into the abdomen through a very small incision. A small video camera is usually attached to the outer end of the scope, so that the image may be viewed on a TV monitor.

Laparoscopic Surgery - surgery performed through multiple small incisions (half to 1 cm long) using specially-designed surgical instruments and viewed through a laparoscope, or surgical telescope.

Open Surgery - surgery done through a large incision in the abdominal wall, using traditional surgical instruments. In heavy patients, these large incisions are at risk of infection and hernia formation.

Pneumonia - infection in the lung. Patients who are recovering from abdominal surgery are at risk of this problem. Walking, and the use of breathing exercises, can substantially reduce this risk.

Recommended websites

1. www.health.gov.au - “About overweight and obesity” - Australian Government – Department of Health and Ageing
2. www.ossanz.com.au - Obesity surgical options - Obesity Surgical Society of Australia and New Zealand
3. www.foodtalk.com.au - “The food and nutrition guide for gastric banding” - Wesley Nutrition Centre

Handy Tips

These tips have been assembled by Sarah Fisher, Midband and modified by the Practice

1. Snap lock bags are fantastic to minimise excess waste and can be re-used. These bags freeze well allowing you to purchase meat and other perishables in bulk quantities and distribute into friendly portions to freeze.
2. Use small containers for cooking meals ahead of time and freezing them in ready-to-eat portions. Cooking for one is next to impossible, however, by using snap lock bags and containers, it allows you to minimize food waste (even when cooking in larger quantities) and provides good, healthy meals for those short notice or “no time to cook” moments that can occur.

3. Utilise internet resources. www.taste.com.au have a variety of wonderful recipes. Get to know what types of food suit you and research meal ideas in the various categories.
4. Fruit and vegetables can often be problematic for a large number of patients with the skin being the typical culprit. There are ways to minimize these problems and to enjoy fruit. As with fibrous foods, extra attention needs to be paid to chewing very well.
 - Peel the skin from fruits such as apples and peaches.
 - Melons, such as seedless watermelon and rock melon are usually well tolerated.
 - Cut apples into very thin slices. Apple will keep very well for a whole day in a sealed container.
 - Fruit in natural juices are a very good substitute and can be bought in snack-sized containers
 - Bananas can be quite dense so purchase small sized or lady fingers. Bananas will keep well if refrigerated in their skin.
 - Stone fruit can be difficult so try them slowly.
 - Poached fruit is a great option.
 - Should fresh berries be difficult, try macerated or blended on cereal.
5. Vegetables are an essential part of a healthy diet, however, there are some vegetables that can be quite tough and difficult to break down despite chewing very well.

You may prefer raw and crunchy vegetables whilst others may find it easier to almost overcook the vegetables until they are quite soft.

If cooking fresh vegetables cut up larger quantities of your preferred vegetables and keep for several days in a sealed container in the refrigerator.

Salads take some time to work out what suits you. Start by trying the ingredients separately. Cucumber, capsicum, olives, thinly sliced carrot, mushrooms and avocado are well tolerated.

Choose lettuce leaves that you can chew well, i.e. iceberg or cos.

6. Meat may not digest very well, especially dry, overcooked meats. There are ways to prepare meat to have better success. Bear in mind if you are struggling to eat meat on a regular basis and find you require more protein in your diet, there are other non-meat protein rich foods, i.e. skim milk, cottage cheese, eggs, fish, yoghurt (check label), tofu, nuts, beans, seeds.

Here are some examples:

- Use a slow cooker, not only does it save time cooking in the evenings, but it cooks meat slowly and in a stock that leaves it tender and easy to break down.
 - Cook meat slowly on a low heat and do not over-cook meat, leave it medium-rare.
 - Minced meat is a great option as the meat has already been broken down for you.
 - Slicing meats thinly improves digestibility.
7. You know about the recommendation of not eating and drinking at the same time. However, you may notice that if it has been some time in-between meals, (say greater than 4 hours), you find the first few mouthfuls uncomfortable. If this is the case, your stomach is just quite empty and just needs to be opened up a little to better tolerate your meal. Try sipping a warm drink before eating. This warms up your stomach tissue, lubricates the pouch and opens it up to make eating more comfortable.

There are many beverages / broths that can make up your daily fluid intake. Try for example:

- water with fresh lemon or lime
 - tea (black or white)
 - coffee
 - green tea
 - fruit tea
 - fruit juice (high in sugar, try watering down with still or sparkling water)
 - vegetable juices (freshly juiced)
 - V8 pre-packaged juices
 - Miso soup
8. Many people worry about eating out. The concern is often “what will I eat?”, “what if food gets caught?”, “what if everyone is watching me?” It may surprise you that there is a greater possibility that other fellow diners may have had weight loss surgery and you would never know.
- If you would like a beverage, such as a coffee, order it as soon as you sit down and before you eat. That way you can enjoy your drink.
 - If eating out at shopping centres try Sushi Trains (as you can select small plates), Vietnamese (if you would prefer a light soup), salad bars (pasta, risotto or couscous based salads with vegetables and other ingredients that suit you).
 - If you are unsure, safe options are a coffee, fresh fruit / vegetable juice or a skim fruit smoothie.

- You do not always have to order food at a restaurant. If you are not very hungry, order a beverage or you could share a meal with your fellow companion. It is up to you how much of it you eat.
- When ordering at restaurants select low key meals, i.e. an entree as a main or ask for a main in entree size (if available). Should the meal be too large, ask the wait staff to pack it up for you to take home.