



SOUTHERN **WEIGHT LOSS**
& LAPAROSCOPY

Weight	It's not just the weight you lose. It's the weight that's lifted
Loss	
Surgery	

Introduction to a healthier life

The decision to undergo bariatric surgery should be well informed. The information in this booklet will serve as a guide to developing a better understanding of the benefits and risks of bariatric surgery as a treatment for obesity.

Weight helps to determine your health

Your weight affects much more than just your appearance. Losing weight can help you live a healthier life. A review of studies has shown there are numerous diseases associated with obesity, including:

- Type 2 diabetes
- Joint pain
- High blood pressure
- High cholesterol
- Hypertension
- Stroke
- Heart disease
- Sleep apnoea

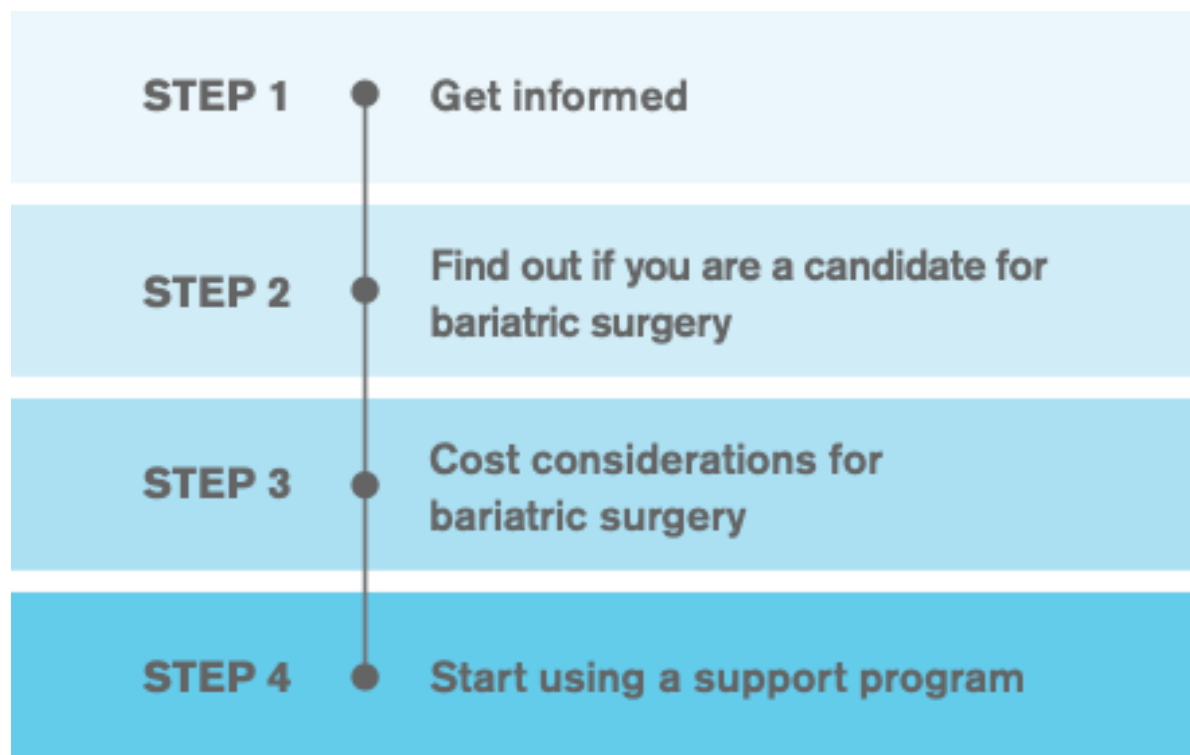
Obesity is a threat to your health. Reducing your weight, however, can help you reduce your risk for and may minimize the severity of other diseases.



Taking the first step

Your interest in this information shows that you want to learn more about living your life at a healthier weight. Bariatric surgery has been proven to help people achieve and maintain a healthier weight when diet and exercise alone have failed.¹

Surgery is a serious decision. Taking certain steps in the right order can help ensure you get all the necessary information to identify the most effective treatment for you. With these steps, you will know how to get started and what to do next. The goal is to have everything in place so you can feel confident with your decision to achieve and maintain a healthier weight. Reducing your weight could help you reduce the risk and impact of other diseases, such as diabetes, hypertension, or heart disease.¹



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STEP 1 – Get informed

So, who are we?

Southern Weight loss and Laparoscopy are Dunedin based surgical practice specialising in weight loss and general surgery, also covering Central Otago and Southland regions.

Our Goal:

Is to improve the understanding and acceptance of the role of that surgery plays in the management of obesity and metabolic disorders. While at the same time helping our patients achieve their goals of a healthier and fuller life.

We want you to know that we understand that undergoing weight loss surgery is not an easy decision for you, and that you have tried many diets and exercise programmes with varying success. We are aware that losing weight is a complex and maintaining the loss can be an even more challenging prospect. We will work closely with a talented dietician and psychotherapist to help empower you on your journey to better health and achieve your weight loss goals.

As you are aware living with excess weight has been shown to put your health at risk.² The risk increases sharply as your obesity becomes more severe². Serious health problems may also occur when dieting leads to “weight cycling” (the repeated loss and regain of body weight).³ Bariatric surgery has helped thousands of people discover life at a healthier weight and resolve many of the health risks associated with severe obesity.

But all surgery has risk, so it is critical to have a clear understanding of what this life-changing treatment involves. That starts with getting reliable information.

Meet the team

Our Surgeon

Mr Mark Grant.

MBBS MMedSci FRACS

Mark is an Upper Gastrointestinal surgeon who has a particular interest in the management of obesity and cancers of the stomach and oesophagus.

Currently Mark is the only Upper Gastrointestinal and Bariatric surgeon appointed at Southern DHB; his clinical interests include:

- Laparoscopic surgical procedures for the treatment of obesity and metabolic conditions related to obesity.
- The management of oesophageal and gastric cancers.
- The investigation and management of benign conditions such as gastro-oesophageal reflux disease.
- Laparoscopic treatment of hernias, and gallstone disease.

Mark is pleased to have started consulting out of Suite 6, at the Marinoto clinic, whilst operating at Mercy Hospital.

Mark has always aimed to provide a high standard of care with an informative patient focus. So, our web site has been designed as an educational resource for patients and will regularly updated, so please feel free to check out: www.southernweightloss.co.nz

Our Dietician.

Helen Gibbs

Helen is a NZ Registered Dietitian, who has a specialist interest in weight management and Type 2 diabetes. She is also the owner and principal dietitian in Diet Consulting.
(<https://www.dietconsulting.nz>)

What is obesity?

The World Health organisation defines obesity as a disease in which fat has accumulated to the extent that health is impaired.² It is commonly measured by body mass index (BMI), which calculates the relationship of weight to height. An adult with a BMI of 30 or more is considered obese.^{4,5}

Obesity becomes clinically severe obesity when an adult has a BMI of 40 or more^{3,4} or has a BMI of 35 or more in combination with a health-related condition such as obstructive sleep apnoea or a disease such as type 2 diabetes or heart disease.^{4,5}

Obesity puts your health at risk

Obesity dramatically increases the risk of:

- Type 2 diabetes⁵
- High blood pressure⁵
- High levels of triglycerides (a type of blood fat)⁵
- Heart disease and stroke⁵
- Arthritis⁵
- Obstructive sleep apnoea⁵

Higher body weights are also associated with increased risk of certain cancers and early death.⁵

Options for treatment

Most nonsurgical weight loss programs are based on a combination of diet, behaviour modification, and regular exercise. However, research has shown that these methods rarely resolve severe obesity because they fail to help people maintain weight loss.⁶ In fact, the overwhelming majority of people regain the weight they lose over the long-term.

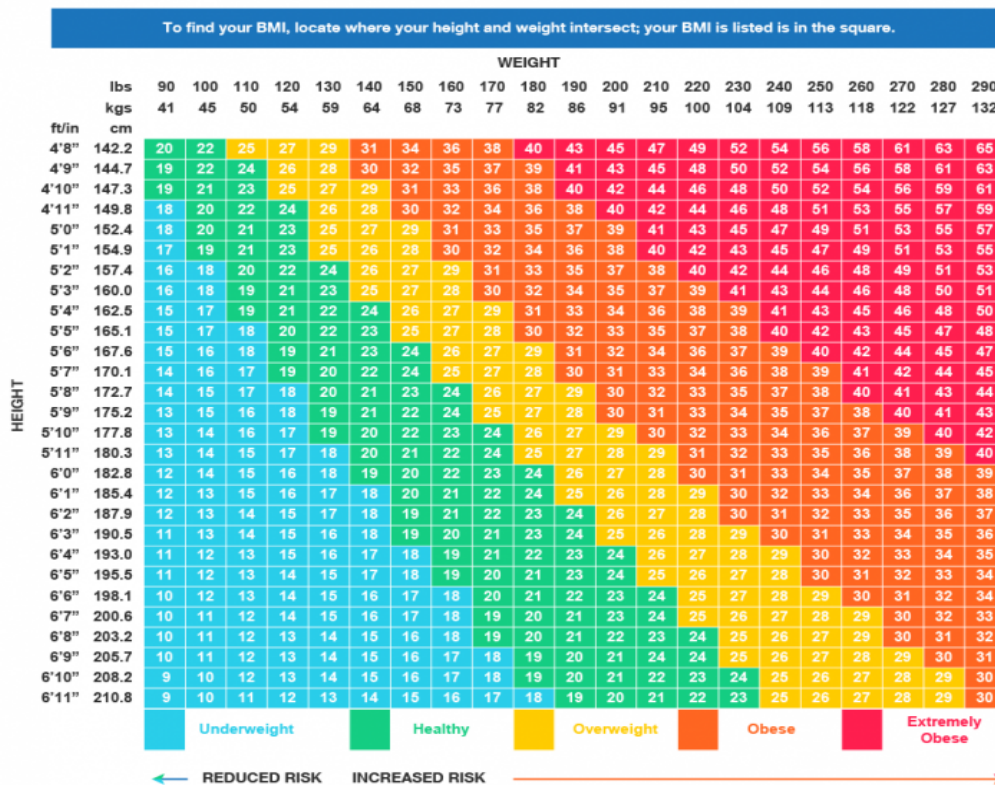
Calculate your BMI

What is the Body Mass Index (BMI)

The body mass index (BMI) generally reflects the amount of excessive body fat an adult has, although there are certain exceptions, such as the BMI of an athlete, a body builder or pregnant woman. BMI does not necessarily take into account a person's distribution of fat (abdominal vs. peripheral)

BMI takes into consideration your height and weight, and is calculated using following formula or the calculator below:

Weight in kilograms divided by Height in meters squared (BMI = kg/m²)



<https://bmiculatornzm.com>

Your body's set point and how it affects your weight

Introducing the theory of weight loss: if you've been trying to lose and maintain weight but you haven't had any luck, you may be fighting against the normal workings of your body. Body weight and fat levels are regulated by a complex system of signals in your body. These signals control your appetite, digestion, energy balance, and metabolism to keep your body weight and fat at a steady level, or "set point".

Your body's set point is part of a basic biological instinct. When body weight and fat levels fall below your set point, your body activates defence mechanisms to maintain body weight and fat in order to prevent starvation, even in people with obesity. Dr. David Katz, the founding director of the Yale University Prevention Research Center, says, "Throughout most of human history, calories were scarce and hard to get, so we have numerous natural defences against starvation. We have no defences against overeating because we never needed them before."

Everyone's set point is different and can be changed. It appears that the body regulates fat set points similarly to how it regulates other body functions such as blood glucose, cholesterol, and blood pressure. Set points are affected by genetic, developmental, and environmental factors. Changes in any of these factors can lead to an elevated set point for body fat storage. For example, changes in the chemicals and nutrients contained in our foods can affect our brains in ways that increase the amount of food we eat and increase our body fat set point.

Additionally, as you gain weight, your set point is increased, and your body works to defend the higher set point. Your body is smart, and it adapts when new things come its way. But sometimes it's not for the better. Your body doesn't realize it's overweight and it continues to store higher amounts of fat than necessary.

Why dieting and exercise may not be enough to fight obesity

Because your body may be working to defend its set point, dieting and exercising are rarely effective in helping people with obesity achieve and maintain a healthy weight long-term. When you go on a diet, your body thinks it's being starved and its survival instincts kick in. As a result, your body stores energy-rich body fat, and you can't lose weight easily. A landmark Swedish study found that, on average, a 100kg patient fighting obesity with diet and exercise alone would only be able to achieve a sustained weight loss of 3 kg over 20 years.⁸

Unfortunately, your body's hormones are working against you

When weight is lost, lower body fat levels trigger hormones that encourage the body to get back to its previous weight set point. A published study showed that while dieters may initially lose weight, their bodies change levels of hormones that encourage weight regain in response to the weight loss. These hormones increase appetite, decrease feelings of fullness, and slow down metabolism. The study also found that these hormones had not returned to pre-diet levels even 12 months after the initial weight loss, meaning their bodies were still encouraging weight regain a year after they stopped dieting.⁹ This is a powerful defence mechanism and may explain why the majority of weight loss attempts fail.

Bariatric surgery may reset your set point

In order for a person with obesity to achieve significant long-term weight loss, the body's weight regulation system must be reset so that the body will stop storing excess fat. By altering the complex relationship your body has with food and its metabolism, bariatric surgery may help to reset your body's ability to effectively manage weight. Research indicates that some types of bariatric surgery (gastric bypass, sleeve gastrectomy) have metabolic impacts that enable a new, lower set point, allowing the body to return to a lower body fat level. By altering the anatomy of the stomach and/or intestine, these surgeries affect

hormonal signals, resulting in decreased appetite, increased feelings of fullness, increased metabolism, and healthier food preferences. These positive changes allow your body to lose weight without the internal fight to return to the higher set point.

Health benefits of bariatric surgery

Without the medical intervention that bariatric surgery provides, many patients with severe obesity are not successful in managing their weight and related health conditions.

“Bariatric/metabolic surgery is the most effective treatment to date, resulting in sustainable and significant weight loss along with resolution of weight-related health conditions in up to 80% [of people].”¹¹ Bariatric surgery has been shown to help patients resolve diabetes, sleep apnoea, joint pain, high blood pressure, and high cholesterol.

Significant improvement with type 2 diabetes

Evidence suggests that bariatric and metabolic surgery changes the chemical signals between the stomach, intestine, brain, and liver – changing the underlying mechanisms of diabetes. Research from the Cleveland Clinic has shown that intensive medical treatment in conjunction with either gastric bypass or sleeve gastrectomy were more effective than intensive medical treatment alone, with regards to managing uncontrolled type 2 diabetes in obese patients.¹²

The study authors concluded that “bariatric surgery represents a potentially useful strategy for management of uncontrolled type 2 diabetes, capable of completely eliminating the need for diabetes medication in some patients and a marked reduction in need for drug treatment in others.”

Findings indicated that:

- At least 3 times more surgery patients achieved normal blood sugar levels than intensive medical therapy patients.
- T2DM was resolved in 42% of gastric bypass and 27% of sleeve gastrectomy patients compared to 0% for patients who only received medical therapy.
- Bariatric surgery significantly reduced the need for diabetes medications and eliminated the need in more than 50% of patients.

Your pathway to a healthier life

We at Southern weight loss and laparoscopy offer a multi-disciplinary patient focused bariatric program.

If you have decided that you want to consider weight loss surgery, you should see your General Practitioner and ask for a referral to Southern weight loss and laparoscopy.

Why did you need GP referral?

You will have been referred by your GP, who is aware of your medical conditions and previous surgery, as there may be things that may have prohibited you from undergoing weight loss surgery. The referral should also include your weight and

height measurements. This referral must be received at our clinic before your initial consultation appointments can be made. Once the referral is received an information booklet will be sent to you, along with an extensive health questionnaire to help streamline your initial consultation.

The initial consultation with your surgeon.

This will cover an assessment of your general health, specifically looking at any co-morbidities relating to your weight. Mark will outline the different surgical procedures performed at Southern Weight loss and laparoscopy and the risks and benefits of each one. Answer any questions you have about weight loss surgery and which ones may be appropriate for you. We may need to organise further investigations to aid us assess your fitness for surgery. These will typically include blood test, an ECG and possibly a sleep study if there are concerns about obstructive sleep apnoea.

Then you will need to see our dietitian

We recommend a minimum of 2 appointments with Helen after your initial session with Mark.

- This will enable Helen to perform an extensive nutritional assessment for you.
- These will let us identify the reasons you may overeat and discuss what work will be needed to achieve a healthy diet. It will also allow you time to reflect and to problem solve with her on areas you might have found more challenging than you expected.
- Then your pre surgical preparation session, will cover two areas of work and are informed by the information collected in the two previous appointment
 - You will receive the individualised plan for meal replacements needed in the 2-4 weeks prior to surgery. A special very low-calorie diet to help shrink the size of your liver to make the surgery easier and reduce the risk of complications associated with surgery.
 - It will also outline what you will need to do in the first 6 weeks after surgery and give you access to resources on puree and soft meals needed as you transition back to eating real food. Included in this will be an individualised protein target you need to eat daily.

We strongly encourage you to ask questions and we will endeavour to ensure these questions are answered both early and honestly.

During this process we will expect you to also either continue working with your psychotherapist or to meet with our recommend psychotherapist to help address common barriers that may prevent you having a successful outcome from surgery.

Evidence has shown that safe and successful outcomes require a close follow-up program with your surgeon and dietician. So, for the first two post-operative years, all follow-up appointments are included.

These appointments will occur at:

- 4- 6 weeks, then
- 4 months
- 8 months
- 12 months

- 18 months and
- 24 months post-surgery.

How to evaluate your surgical options

As you consider treatment with bariatric surgery, it is important to assess your options using these critical factors: safety, effectiveness, and support.

The safety of a procedure can be indicated by complication rates, mortality rates, or the need for secondary procedures to resolve problems.

The effectiveness of bariatric surgery can be measured in weight loss at 1 year and weight loss at 3 years or more. Most bariatric procedures have 1-year results. However, longer-term results are a better indicator of effectiveness. Improvements in obesity-related health conditions after surgery, such as type 2 diabetes, high cholesterol, high blood pressure, and obstructive sleep apnoea are also good indicators of effectiveness.

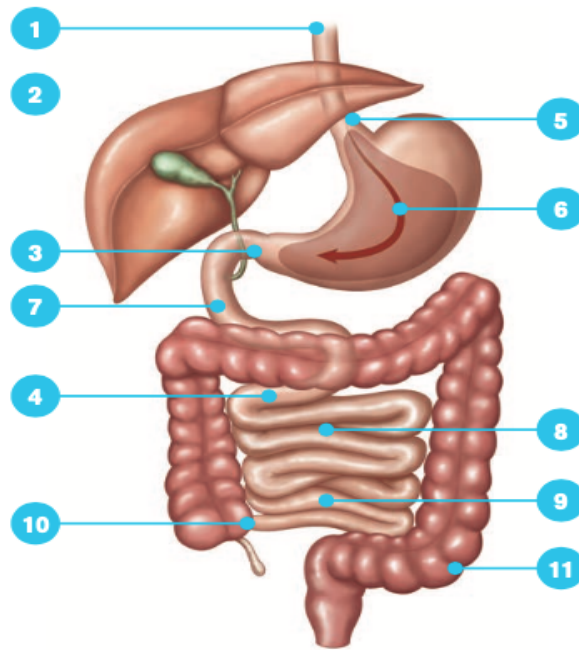
Evidence shows that a 5-10% reduction in weight reduces your risk of developing heart disease and diabetes.³⁴

Experts agree that ongoing support following any procedure is essential to help patients modify behaviours, lose weight, and keep the weight off.

The team assembled by Southern weight loss and laparoscopy will play vital role in providing support before and after surgery. It is also important to speak with your friends and family about their willingness to provide encouragement and support.

Understanding the gastrointestinal (GI) tract

To better understand how bariatric surgery works, it's important to understand what happens during the normal digestive process. The following picture shows how food moves through the GI tract, the stages where various digestive juices and enzymes are introduced to allow absorption of nutrients, and where food material that is not absorbed is prepared for elimination. If you have any questions, please feel free to ask Mark.



The digestive system

1. The oesophagus is a long, muscular tube that moves food from the mouth to the stomach.
2. The abdomen contains all of the digestive organs.
3. The pylorus is located at the outlet of the stomach and it is closed while food is being digested into a more easily absorbed form. When food is properly digested, the pylorus opens and allows the contents of the stomach into the first portion of the small intestine.
4. The small intestine is about 15 to 20 feet long and is where the majority of absorption of the nutrients takes place.
5. A valve at the entrance to the stomach from the oesophagus allows the food to enter, while keeping the acid-laden food from “refluxing” back into the oesophagus, causing damage and pain.
6. The stomach normally holds just about 1500 mL of food from a meal. Here acid and other digestive juices mix with ingested food to help the breakdown of proteins, fats, and carbohydrates into smaller, more absorbable units.
7. The duodenum is the first section of the small intestine and is where the food is mixed with bile produced by the liver and with other juices from the pancreas. This is where much of the iron and calcium is absorbed.
8. The jejunum is the middle part of the small intestine, extending from the duodenum to the ileum; it is responsible for the absorption of nutrients.
9. The last segment of the intestine, the ileum, is where the absorption of fat-soluble vitamins A, D, E and K and other nutrients occurs.
10. Another valve separates the small and large intestines to keep bacteria-laden colon contents from flowing back into the small intestine.
11. In the large intestine, protein and excess fluids are absorbed and a firm stool is formed.

Sleeve gastrectomy

A sleeve gastrectomy is the most common Bariatric procedure performed. It limits the amount of food you can eat by reducing the size of your stomach and involves no reconfiguration of your intestine. Like other metabolic surgeries, it also helps to establish a lower, healthier body fat set point by changing the signals between the stomach, brain, and liver.

Vertical sleeve gastrectomy is usually employed as a single procedure for weight loss but it can also be the first step before other surgical procedures (e.g. gastric bypass)

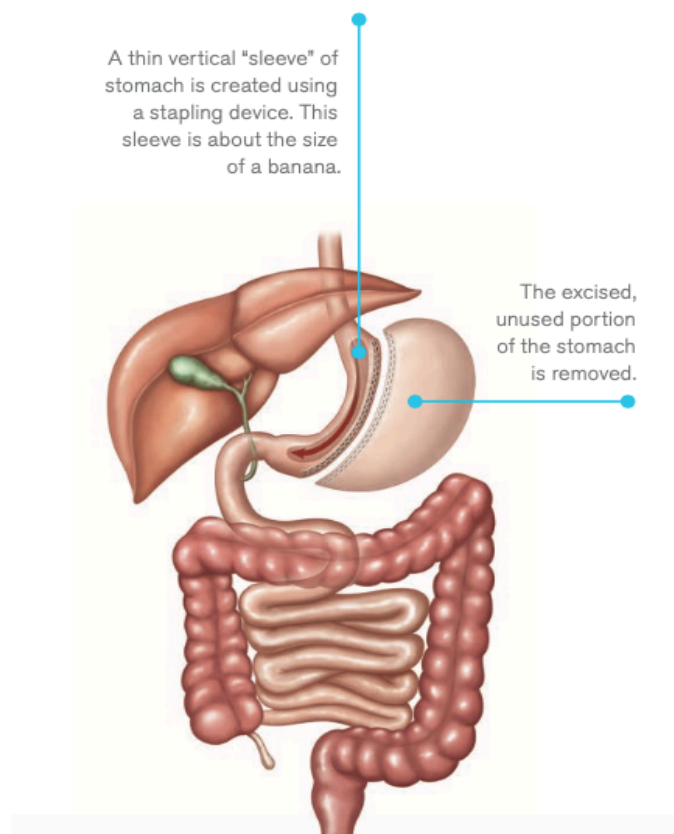
- Using keyhole surgery Mr Grant will create a small stomach “sleeve” using an advanced stapling device. This sleeve will typically hold 50 mL to 150 mL and is about the size of a banana. The rest of the stomach is removed.
- Patients stay in hospital One to two nights and will usually return to work within two weeks.

Weight Loss After Gastric Sleeve Surgery:

After 12- 18 months, weight loss ranges from 60-70% of your excess weight before surgery. So, on average, a typical patient who is 50 kilograms overweight will lose 30 – 35 kilograms.

Currently the published data suggests that the risk of complications with the gastric sleeve is similar to that of the gastric bypass, with evidence that the long-term weight loss is less than that of the bypass.

The procedure



Advantages

- Limits the amount of food that can be eaten.
- Allows the body to adjust to its new, healthier set point.
- Food passes through the digestive tract in the usual order, allowing vitamins and nutrients to be fully absorbed into the body.
- Consequences of not taking vitamin supplementation are not as critical as with a bypass.
- Shown to control type 2 diabetes (45%) and help improve high blood pressure (56%), obstructive sleep apnoea (54%), and high cholesterol (77%).^{1,13,20,21}

Risks

The following are in addition to the general risks of surgery:

- Complications due to stomach stapling, including separation of tissue that was stapled and leaks from staple lines.
- Ulcers
- Oesophageal dysmotility
- Gastroesophageal reflux (up to 1 in 3 people may need to take medication for this)
- Non reversible since part of the stomach is removed

Gastric bypass

How it works to help you lose weight

Gastric bypass surgery has been performed for over 50 years and is the benchmark against which other weight loss interventions are compared. The gastric bypass surgical technique limits food and keeps it from being absorbed completely. This technique alters the complex relationship your body has with food and its metabolism. This change helps reset your body's ability to effectively manage weight. The surgery allows the body to establish a new, lower, healthier body fat set point.

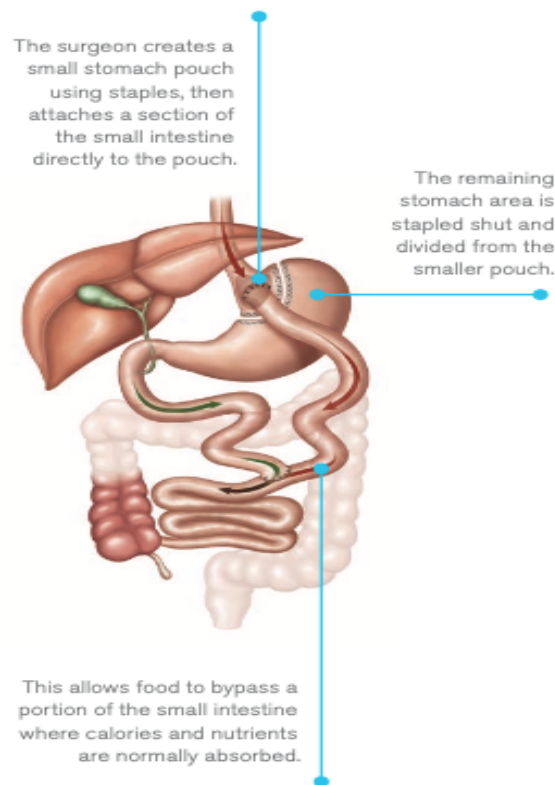
- Using key-hole surgery, a small pouch is formed from the top of your stomach which limits your meal size to about 50mls initially,
- A limb of small intestine is then joined to this pouch, thereby bypassing the rest of the stomach and the upper portion of the small intestine (duodenum).
- The smaller stomach size helps patients feel full more quickly, which reduces food intake.
- Bypassing 100- 150 cm of the intestine limits' your absorption of calories.
- Your digestive enzymes are still able to mix with your food.
- Gastric bypass also produces positive metabolic changes in many organs as a result of surgical anatomic manipulation.¹

Patients stay in hospital one to two nights and will usually return to work within two weeks. However, each patient is different.

Weight Loss After Gastric Bypass Surgery:

After 12- 18 months, weight loss ranges from 65-80% of your excess weight before surgery, which in many cases the is well maintained. So, on average, a typical patient who is 50 kilograms overweight will lose 32.5 – 40 kilograms.

The procedure



Advantages



- Limits the amount of food that can be eaten at a meal and reduces the desire to eat.
- Allows the body to adjust to its new, healthier set point.
- Average excess weight loss is generally higher than with a sleeve gastrectomy.
- An analysis of clinical studies reported an average excess weight loss of 62%.¹⁵
- Shown to control type 2 diabetes (68%) and help improve high blood pressure (66%), obstructive sleep apnoea (76%), and high cholesterol (93%)^{1,16,17}
- In a study of 608 gastric bypass patients, 553 maintained contact for 14 years; the study reported that significant weight loss was maintained at 14 years.¹⁸

Risks

The following are in addition to the general risks of surgery:

- Because the duodenum is bypassed, poor absorption of iron and calcium can result and a predisposition to iron deficiency anaemia. Women should be aware of the potential for heightened bone calcium loss.
- Occasionally a narrowing at the join between the stomach pouch and the small intestine may cause eating difficulties and may need an endoscopy to stretch up the join.
- Internal hernias, which may require further surgery, approximate 3% lifetime risk.
- Bypassing the duodenum has caused metabolic bone disease in some patients, resulting in bone pain, loss of height, humped back and fractures of the ribs and hip bones. All of the deficiencies mentioned above, however, can be managed through proper diet and vitamin supplements.
- Chronic anaemia due to vitamin B12 deficiency can occur. This can usually be prevented with vitamin B12 pills or injections.
- When bypassing the pylorus, a condition known as dumping syndrome can occur as the result of rapid emptying of stomach contents into the small intestine. This is sometimes triggered by eating too much sugar. The results can be extremely unpleasant and can include nausea, weakness, sweating, faintness and, on occasion, diarrhoea after eating.
- The published mortality rate is below 1 in 1000
- The risk of severe complications such as bleeding, infections and blood clots is less than 5%.

Comparison of offered bariatric procedures

	Sleeve Gastrectomy	Gastric Bypass
		
Procedure description	During the sleeve gastrectomy procedure, a thin vertical sleeve of stomach is created using a stapling device. The sleeve is about the size of a banana. The rest of the stomach is removed.	In this procedure, the surgeon creates a small stomach pouch and attaches a section of the small intestine directly to the pouch. This allows food to bypass a portion of the small intestine.
How it works to help you lose weight	By creating a smaller stomach pouch, a sleeve gastrectomy limits the amount of food that can be eaten at one time, so you feel full sooner and stay full longer. As you eat less food, your body will stop storing excess calories and start using its fat supply for energy.	By creating a smaller stomach pouch, a gastric bypass limits the amount of food that can be eaten at one time, so you feel full sooner and stay full longer. By bypassing a portion of the small intestine, your body also absorbs fewer calories. As you eat less food and absorb fewer calories, your body will stop storing excess calories and start using its fat supply for energy.
How it affects digestion	Does not significantly affect normal digestion and absorption. Food passes through the digestive tract in the usual order, allowing it to be fully absorbed in the body.	Reduces the amount of calories (in the form of nutrients) that are absorbed.
Total percent excess body weight lost (at 3 years)	66% ²⁹	71% ²⁵
Health benefits shown in clinical trials		
Type 2 diabetes	45% controlled ^{13,23†}	68% controlled ^{13,23†}
High blood pressure	56% resolved ²⁰	66% resolved ¹³
High cholesterol	77% resolved ³⁰	94% resolved [†]
Obstructive sleep apnea	54% resolved ²⁰	76% resolved ²³
Average surgery time	1.5 to 3.5 hours ²⁹	2 to 3.7 hours ²³
Length of hospital stay	2 to 12 days ³¹	2 to 8 days ²³

Life after surgery

Bariatric surgery is an effective treatment for obesity and related diseases. But you have to do your part, too. Understanding and actively engaging in a lifestyle that supports achieving and maintaining a healthier weight is vital for success. Staying connected with your bariatric team is just as important.

Preparing for bariatric surgery

Whichever procedure you choose to have, it is important that you begin your new lifestyle preoperatively. ***Weight loss surgery must be considered as just one of the tools available to help you lose weight.*** Making appropriate lifestyle adjustments is crucial to the success of your procedure.

Work with our team at Southern Weight loss & Laparoscopy to understand what changes you will need to make in your daily routine to help ensure the success of your surgery.

We will help you understand your postoperative dietary requirements, exercise needs, and any other changes you will be making before you receive surgery. It is a good idea to implement these changes as well as any other behaviour modifications preoperatively to help you transition more easily into your new postoperative lifestyle.

Diet

The changes made to your gastrointestinal tract will require permanent changes in your eating habits that must be adhered to for successful weight loss. Post-surgery dietary guidelines will vary by surgeon.

You may hear of other patients who are given different guidelines following their bariatric surgery. It is important to remember that every surgeon does not perform the same bariatric surgery procedure and that the dietary guidelines will be different for each surgeon and each type of procedure. What is most important is that you adhere strictly to the surgeon's and dieticians recommended guidelines.

The following are some of the generally accepted dietary guidelines a bariatric surgery patient may encounter:

- When eating solid food, it is essential that you chew thoroughly. You will not be able to eat chunks of meat or bread if they are not ground or chewed thoroughly.
- Do not drink fluids while eating.
- Omit desserts and other items with sugar listed as one of the first three ingredients.
- Omit carbonated drinks, high-calorie nutritional supplements, milk shakes, high-fat foods and foods with high fibre content.
- Avoid alcohol.
- Limit snacking between meals.

Birth control and pregnancy

We strongly advised that women of childbearing age use the most effective forms of birth control during the first 12 to 18 months after bariatric surgery. The added demands

pregnancy places on your body and the potential for foetal damage make this a most important requirement.

Long-term follow-up

Nutritional deficiencies that occur over the course of many years will need to be monitored. Over time, you will need periodic checks for anaemia and vitamin B12, folate, and iron levels. Follow-up tests will initially be conducted every 3 to 6 months or as needed and then every 1 to 2 years. Follow-up care is recommended for life with us or with your GP after your 2-year post op follow up comes to an end.

Step 2 – Find out if you're a candidate for bariatric surgery

You may be a candidate for surgery if you meet at least one of the following two criteria:

- Weigh greater than 45kg above the ideal body for sex and height.
- Have a BMI > 40 alone or > 35 if you have obesity associated conditions such as diabetes, high blood pressure or sleep apnoea

And meet the following criteria:

- You have made reasonable attempts at other weight loss techniques
- You are 18 – 65 years old
- You have no psychiatric or drug dependency problems
- You have the capacity to understand the risks of surgery and agree to commit to taking multivitamins

Step 3 – Cost considerations of surgery

Weight loss surgery in New Zealand is not fully covered by your insurance company. This means that there are some out of pocket expenses that you will need to manage.

At Southern Weight Loss & Laparoscopy we believe in be transparent about the costs of surgery and we will discuss these with you. Your package will cover the:

- The surgeon, anaesthetist, and hospital fees
- 1 night's hospital stay
- 2 years of follow-up with your:
 - surgeon
 - dietitian (including your pre-operation dietary education session)

Step 4- Start using a support program

At Southern weight loss & Laparoscopy we recognise that ongoing support before and after surgery is critical for success.

Help to lose weight—and keep it off

Many factors can influence your ability to achieve and maintain a healthier weight. Bariatric specialists have identified several behaviours that are important to maintain weight loss over time. These include:

- Self- monitoring of weight, food intake, and physical activity.
- Long-term use of smaller meals; increased physical activity; and
- Long-term contact with your GP, Surgeon and Dietitian.

Important Safety Information

As with any surgical procedure, bariatric surgery may present risks. One or all of the following conditions and complications are possible following all the bariatric surgery procedures discussed in this booklet as well as for all types of gastric surgical procedures. We can discuss these with you in more detail during your consultation.

Surgical

Perforation of stomach/intestine or leakage causing peritonitis or abscess. Internal bleeding requiring transfusion. Severe wound infection, opening of the wound, incisional hernia. Spleen injury requiring removal. Other organ injury. Gastric outlet or bowel obstruction.

Pulmonary

Pneumonia, Respiratory insufficiency, pulmonary oedema (fluid in lungs). Blood clots in legs/lungs.

Cardiovascular

Myocardial infarction (heart attack), congestive heart failure. Arrhythmias (irregular heartbeats). Stroke.

Kidney and liver

Acute kidney failure. Liver failure, hepatitis (may progress to cirrhosis).

Psychosocial

Anorexia nervosa, bulimia. Postoperative depression, dysfunctional social problems. Psychosis.

Death

Other complications (which may become serious)

Minor wound infection, scarring, and loose skin.
Urinary tract infection.
Allergic reactions to drugs or medications.
Vomiting or nausea.
Inability to eat certain foods.
Acid reflux (heartburn).
Anaemia. Metabolic deficiency (iron, vitamins, minerals).
Temporary hair loss. Constipation, diarrhoea,
Development of gallstones or gallbladder disease.
Stomach or outlet ulcers (peptic ulcer).
Weight regains, failure to lose satisfactory weight.

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