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Laparoscopic Gastric Band (LAGB) Surgery

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About the author

Associate Professor Michael Talbot started working as a consultant upper gastrointestinal surgeon in 2003, having completed 10 years of training following his internship in 1992–93. He started performing gastric band and gastric bypass surgery in 2003, and in 2004 was one of the first in Australia to perform sleeve gastrectomy and laparoscopic gastric bypass. Since then he has developed a large practice in bariatric and complex upper gastrointestinal surgery.

The surgical practice he works in is one of few in Australia regularly performing gastric band, bypass, sleeve gastrectomy, endoscopic sleeve gastroplasty and revision/corrective surgery for all procedures.

The practice also offers expertise in gallbladder and hernia surgery, repair of complex abdominal wall defects, endoscopic management of gallstones (ERCP), endoscopic oesophageal and gastric tumour therapy and state-of-the-art Barrett's oesophagus treatments. We have a specialised laboratory for the investigation of complex swallowing disorders and reflux, and are involved extensively in research.

We work with other doctors and health professionals as part of an interdisciplinary team to create a work environment focused on patient care, innovation and excellence. It is clear that patients do best when they have a range of people helping to look after them. This booklet is a document that will change over time as we learn more from our patients and from each other.

Dr Georgia Rigas

Dr Gary Yee

Dr Jason Maani

Dr Vincent Braniff

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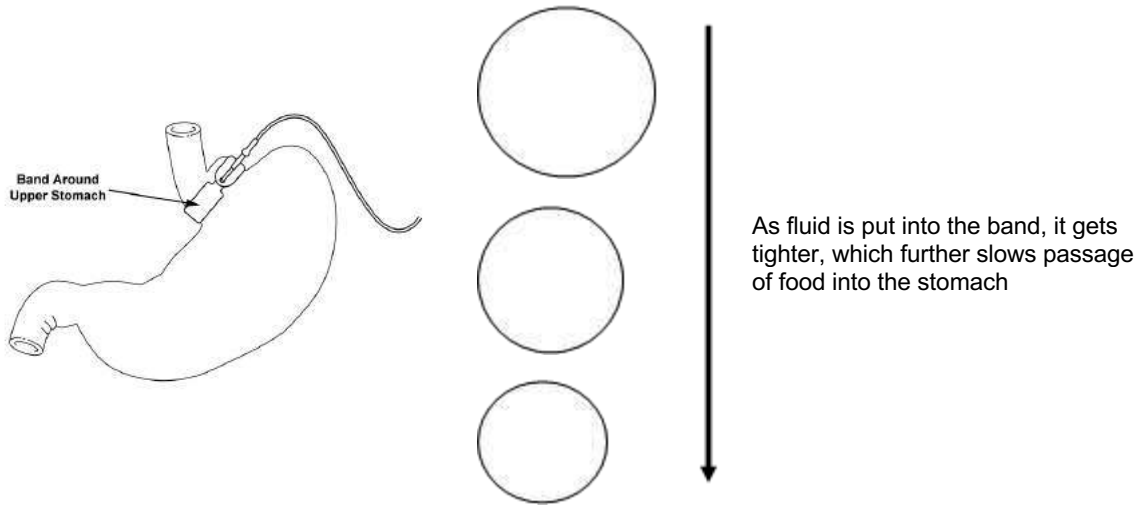
Essential information about this booklet

This booklet is intended to explain the Endoscopic Sleeve Gastroplasty (or ESG) procedure and any issues that you may have before and after the operation. It is not supposed to replace advice given by your doctor or other healthcare professionals, but rather to add to it.

If you have any questions or worries that you wish to discuss with your doctor, please write them down in the space provided. It is important that you understand as much as possible before and after the operation, to aid your weight loss and ensure a healthy lifestyle.

Laparoscopic gastric band (LAGB) surgery

The LAGB is a device manufactured in many different forms but all have a similar underlying design. The band is a silicone ring with a balloon similar to a tyre tube running around the inside of it. This inflatable area is connected by hollow tubing to a port (a disc a bit larger than a 10-cent piece) which sits under the skin of your abdomen. When fluid is put into the port it inflates the balloon, reducing the space for food to pass into your stomach.



The band is designed to slow you down when you eat (so it may take 20 minutes to have half a sandwich) and to suppress your appetite so you can stop eating after a very small amount of food. The band itself does not make you lose weight – the decision to stop eating has to be yours.

When you eat, food moves slowly into the stomach, and food sitting above the band (the amount of stomach above the band is about the size of a thumbnail) stretches some of the nerves that help reduce your hunger.

You will be consuming about 600–800 calories per day when losing weight and 1000–1200 calories per day when keeping your weight stable.

History of the LAGB

The LAGB has developed slowly over the last 20 years.

When surgeons began to realise that the majority of patients undergoing gastric partitioning (VBG, or ‘stomach stapling’) eventually suffered staple-line failure, some started to attempt similar operations using the band from their stapling operations but without using the staples themselves. Eventually they discovered that using inert material like silicone reduced infection rates.

Dr Kuzmark from Sweden solved the problem of how tight to make the band when he managed to attach an inflatable silicone band to hollow tubing used for other medical devices. The band could now be put on loose and tightened as needed. Along with the development of laparoscopic (keyhole) surgery, his advance made this type of surgery a reasonable prospect for the first time.

During the early 1990s it was discovered that while the LAGB helped people lose weight, the rate of device failure (band slippage, erosion, and tubing problems) and weight regain was very high. When surgeons (predominantly Australian) moved the band to the top of the stomach rather than midway down, this had the effect of drastically reducing the size of the ‘pouch’ of stomach above the band and drastically reducing the failure rate. This is the operation that is done today.

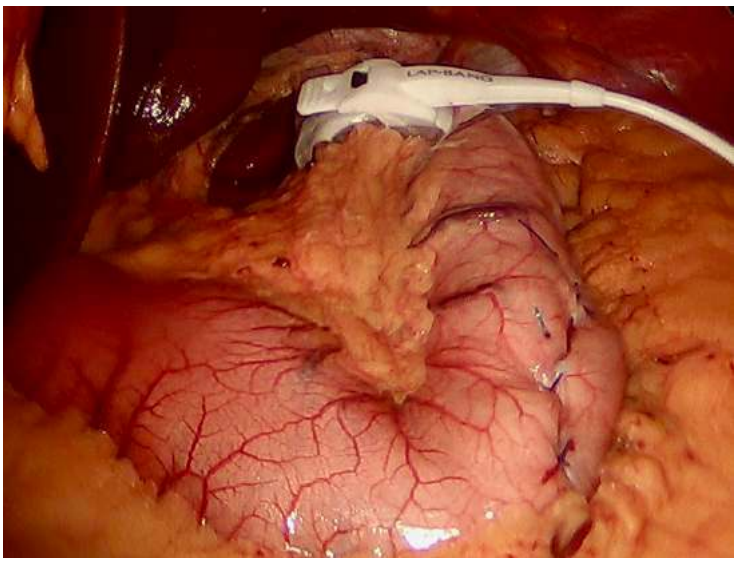
The LAGB is the safest effective long-term weight loss procedure ever developed. Other procedures may have other advantages but they cannot match the safety profile of the band.

More modern version of the band.

The plicated band or I-band.

With a plicated band a standard Lap-band is placed, but then the stomach is freed up from its attachments and plicated with several rows of sutures. This reduces the total gastric volume by about 75%.

The smaller stomach then creates an easier feeling of 'fullness' or satiety when you eat and the band at the top of the stomach helps maintain a level of adjustable 'restriction' when you eat. Because the band doesn't have to be adjusted as tightly the number of food restrictions is less and vomiting/regurgitation is less than a usual lapband.



Gastric Band in place after plication of the stomach.

This new stomach is similar in size to that after Sleeve Gastrectomy.

Who is suitable for these types of surgery?

In general, weight loss surgery is a good option for people who:

- are very overweight
- have medical or other problems caused by their weight
- have tried for several years to lose weight with other methods
- are prepared to go ahead with the follow-up after surgery.

Essentially, the risks of the surgery need to be balanced against the risks of not having surgery. As you are aware, there are many different surgical options available and it would be silly to suggest that one solution will suit everyone. It is important to know about the other options as well to help you make a more balanced decision. Please read the General Information booklet for further details.

Dieting first

You do need to try dieting before undergoing LAGB surgery. This is to help you get an understanding of the energy content of foods and the importance of exercise.

LAGB benefits

- The band is probably the safest effective procedure developed to allow long-term weight loss. Other operations, although also performed by keyhole surgery, are larger and therefore riskier.
- The band will cause scarring around your upper stomach, but otherwise does not change the way your insides are put together.
- The band is easier to remove than prosthetics used in other operations, however removal of the band invariably leads to weight regain.

- The hospital stay and time off work is less than for other weight reduction operations.

LAGB drawbacks

- The band requires quite significant long-term compliance to achieve and maintain weight loss. This requires a degree of retraining, and if you are not able to retrain you will not lose weight. About 5–20 per cent of people find that they are not able to use the band effectively.
- There will be some foods you will not be able to eat after the operation. These vary from person to person, but typically include white bread, chicken, many red meats, and fibrous fruit and vegetables.
- The band is a mechanical device, and like all mechanical devices it can 'break'. Although the majority of mechanical problems can be fixed, this does mean having another operation. If the band problem is not fixed, about 95 per cent of people will put their weight back on.

Why does the weight return when the band is removed?

Your weight problem is a lifelong illness. If you stop taking treatment (the band), the illness will return. This is similar to other lifelong illnesses, such as asthma or high blood pressure, in that the treatments work only while they are being taken.

Other LAGB risks

- The possibility of allergy to the band is very small, however the band is a foreign object inside your body and all medical prostheses have risks associated with them.
- If infection gets onto the band from anywhere, this can be very hard to get rid of without removing the band itself. Infections occur in a small number of people (about one to two per cent), and they invariably resolve quickly after band removal. Putting another band in after the infection has gone does not usually result in re-infection.
- Movement or slippage of the band occurs in a small number of people. This is probably a reflection of the fact that this part of the body is moving a lot and is often under a lot of stress. Band slippage can be corrected with laparoscopy.
- Erosion of the band into the stomach (or other organs) is another complication, although very uncommon. This is usually not as bad as it sounds, although surgery is needed to fix the problem.
- The band tubing and access port can break or twist. This is usually a straightforward thing to fix.
- The risk of 'device' problems requiring re-operation is probably in the order of two to four per cent each year, but people who stress their band by vomiting frequently (more than a couple of times a week) or who have the band too tight in order to 'stop them from eating' will have a higher risks of 6–10 per cent per year.

Before the operation

Tests and consultations

After an initial consultation you will have some blood tests done, so we can assess your sugars, thyroid, blood count and vitamin levels. You will then need one or more further consultations, depending on how you feel. We should obtain approval from your general practitioner (GP), as they will wish to be involved in your post-operative care. Even if you are unsure about whether your GP supports your decision to have weight loss surgery, you should discuss it with them first. Patients with a good support team do the best, and a GP, spouse/partner, friends and family who are all supportive are invaluable. Patients who choose to go it alone will not fare so well.

We will talk about your dieting history and assess any medical problems you have. Some medical problems may require further assessment and treatment to make you as fit as possible before your operation. In general I prefer a patient to have at least two consultations with me or my colleagues prior to surgery.

After we have booked a date for your surgery you will need to go on a very low calorie diet for 2–4 weeks before the operation. During this time you should lose about 2–4 kg per week.

Very low calorie diet

The very low calorie diet consists of three liquid meal replacements per day. This gives your body the minimum energy it needs but has all the nutrition of a balanced diet: macronutrients (carbohydrates,

protein, essential fat) and micronutrients (vitamins and minerals). Suitable brands include Optifast, Slimfast, Tony Ferguson etc. and are available from your local chemist. We will give you instructions about other foods to consume with the program.

Purpose of the diet

There are three benefits to the pre-operative diet:

- Most of the fat tissue you lose first with these diets comes off your liver and from around your internal organs. Losing this fat makes the operation faster, safer and significantly less painful. Weight loss of just 10 per cent leads to a reduction in medical risks of 50 per cent and significantly improves your fitness which aids in recovery.
- Weight loss reduces the severity of weight-related illness very quickly. This makes the anaesthetic safer.
- The diet will accustom you to the post-operative liquid diet. Having this diet before the operation allows you to find low-calorie drinks you like while you're in a less stressful situation.

Choice of diet drinks

If you don't like a particular diet drink, try a different brand or switch to milkshakes, soups, bars or desserts. In general the brands with the greatest range of flavours seem to be more popular. If you cannot find something you tolerate you should discuss other short-term or rapid weight loss options with our dietitian.

Seeing a dietitian

You need to see a dietitian before the surgery. Changing how you eat is central to weight loss, and often people can be confused by the different advice they have received in the past. A dietitian is available to see you before and after the operation, and most people get significant benefit from seeing her. A dietitian can help you set and work towards weight loss goals through meal planning, education on the right eating practices, portion control and exercise.

Who else should I see before surgery?

You need to get the go-ahead from your GP before the operation, to ensure your body is healthy enough for the strain of the operation and beyond.

A psychologist is available if you find you have issues that need to be tackled, so don't be afraid to ask. If you have had any psychological illness in the past you will need to let us know, and discuss your decision to have surgery with the person who helps manage this condition. Having surgery is stressful and also may change your requirement for some of your regular antidepressants etc.

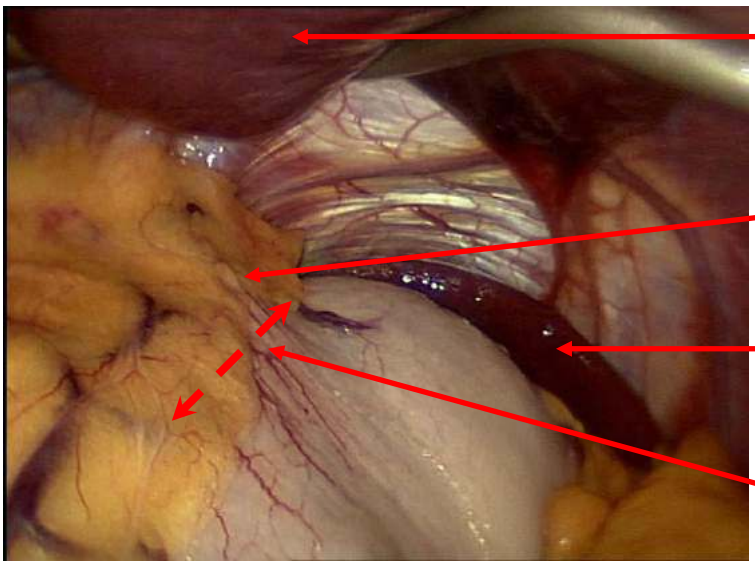
The day of the operation

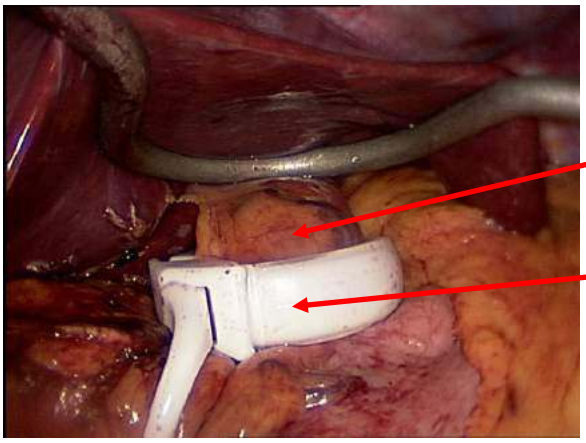
You will probably come into hospital on the day of the procedure, having had nothing to eat or drink for six hours prior to your operation time. A bit of a wait in hospital is to be expected.

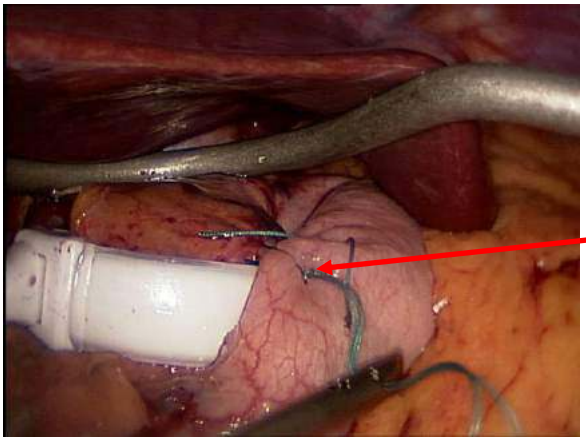
You can have your normal medications with a sip of water at the normal time; however, you will need to stop taking blood thinning medications (Aspirin, Plavix, Asasantin, Warfarin, etc.) five to seven days beforehand. Diabetes medications can usually be taken, but often only half your usual dose.

You should have had some contact with your anaesthetist before the operation, but you probably won't meet them until you have been admitted to hospital. A drip will be put into your arm to give you medications and then you will be wheeled into the operating room. You will see a lot of people bustling around, but don't be concerned as they are there to help you.

Once you are asleep, small incisions (5–15mm) will be made in your abdomen to allow placement of a camera and operating instruments (which look like chopsticks). The band is then placed around the upper part of your stomach.







The access port is then connected to tubing coming off the band and then sutured onto the muscle on your abdominal wall. This requires an incision about 3–5 cm long.

Then we put dissolving sutures in the skin and dressings on the wounds. You wake up in the Recovery Unit around 10–30 minutes after the operation and will feel quite sleepy for a few hours.

Once you are awake and feeling reasonably comfortable, you will go up to the ward for the night. You will be able to have water and painkillers. Injectable painkillers will be available if you need them.

The next day 95 per cent of patients are feeling well enough to go home. You can expect to be off work for one to four weeks, depending on your circumstances.

Risks of the operation

While the list of potential complications is actually very long, more serious complications are thankfully uncommon. The risk to your life from the operation is around 1 in 2000; the risk of serious (making you sick) complications around 1 in 200; and the risk of relatively minor (and easily managed) complications about 1 in 20. However, no complication feels minor when you are the one who has it.

The post-operative period

After about a week the wounds should be almost healed and the dressings can come off. Swimming should be avoided for another week or two, but light exercise can be started.

Two to three weeks after the operation you will come in for a follow-up appointment and talk about the process of adjusting the band. This process is quite complicated and you will have to be patient.

Immediately after the operation you will find that you have no hunger and just a couple of mouthfuls of liquid or yoghurt is enough to make you feel satisfied and able to stop eating. This feeling changes over days or weeks as bruising around the stomach slowly settles, but basically it is this feeling we are trying to achieve again when the band is tightened.

Band adjustment

Adjusting the band involves injecting a small amount of fluid into the port that was sutured onto your abdominal wall muscles. As there are a lot fewer nerves here than other parts of the body, and the needle is small, there is usually minimal discomfort (half that of a blood test).

After fluid is put into the band you should have a drink of water to make sure your swallowing is OK and have fluids only for the rest of the day.

Once fluid has been put into the band you will often feel that:

- food moves more slowly after you have swallowed it
- you have to take small mouthfuls and take your time eating
- you feel satisfied after small meals and have minimal hunger between meals.

You may also find that some foods become more difficult to eat and you should take note of these. Over the following days or weeks you will feel the sense of restriction diminish and you will feel hungrier, eat faster, and find that your portion sizes go up; you may also find that you are thinking about food more between meals and fighting the urge to snack. This is normal, and is simply a result of the stomach ‘settling in’ around the band. When this starts to happen you should ring up and organise another appointment for a band fill.

Gradually the time between fills gets longer and longer, and the amount of fluid put in with each fill becomes less and less until you reach a state of balance, where you are able to manage your hunger with small meals. This in turn helps reduce your weight.

After a band fill

If the band is too tight, you will hear a gurgling sound when you swallow water. You will also belch with every sip of water, and be unable to finish the glass quickly. If you feel this way and don’t request to have fluid removed, you are **likely to spend the next few days vomiting**.

The band will often get tighter over the first 24 hours after a fill, so please ask for fluid to be removed if you find drinking water a struggle.

If you live a long way from my office you should have a yoghurt or something similar before heading home to reassure yourself that everything is fine.

If the band is too tight to make it easy for solid foods to be swallowed, just stay on liquids for a couple of days, as this sensation will often go away. However, if it doesn’t settle quickly you should ring the office for an appointment, as difficulty in swallowing solid food is a sign that the band pressure is too high. If pressure in the band is too high for too long it will damage your oesophagus, and some of this damage may be permanent.

Another symptom that the band is too tight is reflux. If you get this you may either feel a burning discomfort behind your breastbone that settles with antacids, or a choking sensation when you lie down as fluid comes back up your oesophagus passively. If you get reflux that causes discomfort and is not relieved by simple treatments then you will need fluid taken out of the band.

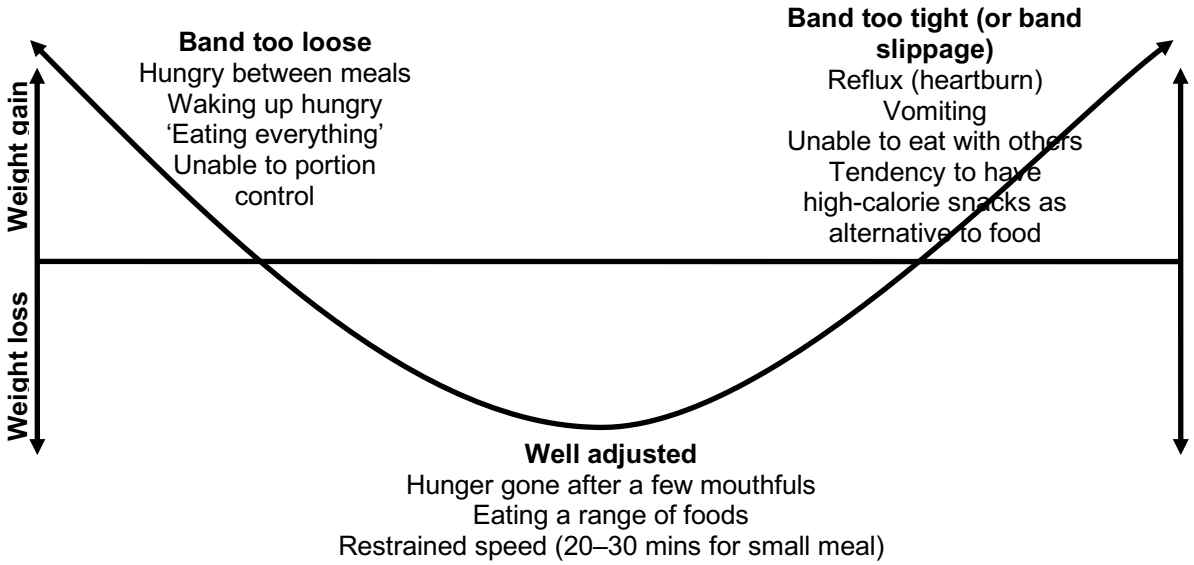
Number of fills

After fluid is put into the band the stomach 'shifts' out of the way, so the band feels looser. Fluid does not leak from the band. The first fill often has no immediate effect, but you will notice it loosening within a few days or weeks.

When the band is close to being fully calibrated, tiny (0.25 cc) changes in the volume will have profound and long-lasting effects, whereas the first couple of fills of 1-2 cc may seem to cause only minor changes in your hunger and capacity.

No-one knows how much you will need. There are several different sized bands and everyone has a different sized stomach. If you want to calculate your progress yourself, the **only** things that matter are **when** you had the last fill and **how much** was put in. Most people need four or five visits in the first four to six months after the operation. Between three and five band fills are average for the first year, two for the second, and about one yearly after that.

When you have appetite suppression, can eat a reasonable range of normal foods, can use 'tricks' like fruit or zero calorie drinks to avoid snacking, and can avoid large meals and snacks.



Come in for a fill:

- when you are losing control of your portion sizes
- when you feel you are eating too much and too quickly
- when simple food distraction techniques, such as having a cup of tea or making a phone call, are not enough to stop the urge to snack.

X-rays

X-rays are not usually done frequently, although check-up x-rays every year or so can be useful. Occasionally it can be hard to find the port with the needle, or hard to judge how much fluid to put in, in which case an x-ray is used, but this is only needed in a minority of cases. Some adjustors (usually non-surgeons) prefer to use x-ray routinely, but I find it gets in the way and I don't like the way it turns band fills from a 'chat' into a 'procedure'.

Speed of weight loss

There is so much variability from person to person for so many reasons that the speed of weight loss is impossible to predict. Remember that 'celebrity stories' in magazines have no relationship to reality,

as only the best results get reported. The actual statistics show that the average maximum weight loss is achieved two to three years after surgery, with a lot of the weight lost in the first 18 months.

It is impossible to say how much weight you will lose. The average weight lost after LAGB is 50–60 per cent of the excess weight that is carried (the Information Booklet you've received explains this more fully), but we know that chance, age, start weight, medical illness, and the ability to exercise all have an effect on the final result. In the end, most people get to a stage where they feel that further weight loss comes at the expense of too much effort and settle at a weight that more-or-less suits them.

Diet after surgery

What to eat is probably the hardest thing to convey to people before and after surgery, and there is no particular diet or type of food that suits everyone. When people are losing weight well (and keeping it off) with a band they all tend to have a similar approach to food, and this approach is the key to success rather than the type of food they eat and how it is prepared.

An extra complicating detail is that during the process of band calibration your tolerance to some foods will change from week to week, but you should not view this as anything more than a settling-in phenomenon. Most things that are complex take a long time to achieve, and for most people losing weight is the hardest thing they have ever done. A band will make this otherwise impossible task achievable – but it will take some effort and persistence.

Diet straight after the operation

What you eat and drink changes over the first few months. Most people have no hunger at all for several days or weeks after surgery and find it hard to even drink large amounts of fluid quickly. While you are satisfied with fluids alone, you should stay on fluids alone. Options include the diet drinks, clear then progressively thicker soups, Weight Watchers or other diet soups, V8 juice or low fat yoghurt or milk drinks.

When fluids are no longer enough then having pureed foods (vegetables, fruit) as well as soups is reasonable, and when this is no longer enough you can start trying soft breakfast cereals (Weetbix, not muesli), overcooked vegetables and pastas, and other soft foods that can be mashed with a fork.

Feel free to experiment with a range of things. It is important not to start eating foods too early, and in general most people wait two weeks until they try this. Some people start earlier, some later.

Things to be careful of

If food gets stuck trying to go through your band you will vomit. If you vomit too much before the band has had a chance to settle in you could make it slip and need another operation to put it back in the right place.

Try to avoid foods that tend to clump or stick together, such as:

- white bread
- chicken breast
- white rice
- oranges and other fibrous fruits
- tabouli.

These should not be attempted for some time. Toast, especially brown bread, is OK for a lot of people, and crackers/Cruskits/rice cakes are very often tolerated well from early on. Many people substitute rice cakes for bread at lunch time and this seems to work.

Problems with vomiting

When both you and the band are well adjusted, vomiting should not be a problem. In some people this process of trial and error can take a little while. People do not actually properly vomit (with the nasty acid and bile); rather, they bring up a mouthful of chewed food and saliva that doesn't have the horrible taste and nasty gagging that we associate with vomiting. Some people call it the 'PBs' (productive burp).

It will help to eat slowly and pay attention. If you are very hungry you may eat too fast and will be more likely to vomit. Having a drink first will lubricate your oesophagus, clear any debris out of the band and settle your hunger a bit.

If you are stressed or in a noisy environment you will be less tolerant to lumpier foods and more likely to vomit. Have soup at restaurants unless you are confident about what you will be served and your ability to pay attention. Do not try too many new foods at restaurants in case you come across something you can't tolerate.

Food habits

Amount

Our modern perceptions about much food you need to eat to be healthy are incorrect. Most of us have greater access to food than any other time in history, and virtually everyone you know overeats most of the time. It is extremely unlikely for someone to starve or become malnourished with a band, but you will have to work hard to manage your own and other people's expectations about how much you should eat. This is the hardest thing that you will have to do, but it is the most important thing also. If you or others believe that you 'must' eat more food then you will simply not lose weight, or will fall well short of your goals. Eating less food may mean you miss out on extra calcium, iron, folate, fibre or other substances but they can easily be mixed in with the diet or supplemented.

Studies of people who have lost weight (by any method) show that successful **maintenance** of lost weight is usually achieved by those who:

- consume 1000–1300 calories a day
- exercise enough to burn off 300 calories a day (in effect giving them a daily intake closer to 1000 calories
- consume a controlled diet with restricted food choices (they say 'no' a lot)
- realise that weight loss is precious, and weight regain difficult to recover from.

Having an operation to lose weight doesn't change the way you lose weight, it only makes it easier because your capacity and appetite are less. If someone maintaining their weight is having ~1000 calories a day, then to lose weight you probably need to eat less than this or do a significant amount of vigorous exercise. It appears that many people losing weight probably eat about 600–800 calories per day.

Frequency

Don't believe the slogan that we need to 'eat little and often'. People with weight problems can manage the 'often' but not the 'little'. Managing portion control is extremely difficult at the best of times, and if you expose yourself to many eating opportunities during the day you will simply expose yourself to more opportunities to make an error. Unfortunately you cannot 'prime' or stimulate your metabolism in any other way than with exercise, and more unfortunately, you will find that as you lose more and more weight, your body will try harder and harder to fight you by hanging on to every calorie you eat as hard as it can. This will have the effect of making your body more efficient or, in effect, slowing your metabolism.

Breakfast

A lot of people do not feel like breakfast after surgery. If you are not hungry in the morning, try to alter your habits so you have your first meal when you actually want it. For a lot of people this is late morning, in which case they have breakfast while others are having morning tea. Another alternative combine this meal with lunch (brunch). Then you can have a snack like a piece of fruit for afternoon tea to tide you over to dinnertime. You should base your meal patterns in the morning on your hunger and routine rather than on tradition. Eating something to stop you from feeling hungry later won't usually work.

Lunch

Lunch should, for most people be an uncomplicated and predictable routine (like breakfast). At work you need strategies to deal with predictable and repeated difficult situations such as cafeterias, lunch trolleys, vending machines and other fast foods. The portion sizes will be hopelessly inappropriate for you, and you will need to either bring food with you (diet drinks and soups are very good for this), plan what to buy before you look at the menu, or be prepared to throw out the some of the food (you

should have half a deli sandwich, or less if it is large). If you do not finish what you order, throw it out or you will end up grazing on it later.

Snacks

Morning and afternoon tea is another significant source of empty calories. If you find yourself unable to resist snacking at this time you should plan for it and bring an apple. A fundamental lesson about snack foods that you should learn early is that you will most likely eat every scrap of it if it is put in front of you and you are bored. You should treat these foods as though they were subject to smoking laws; i.e. sometimes people have them but they don't get consumed inside the house. Snack foods are potentially as dangerous to children as cigarettes, so they will also benefit from being shielded from them. Try not to have them in the house.

Dinner

For most of us, dinner is the most important meal of the day. Your other meals should be controlled, boring, and basically designed to keep you healthy but losing weight. At dinnertime you will be sitting down with your family or out with friends, and you should not miss out on the important social and relationship aspects of eating. Your family will be watching what you eat and how you eat it. If you are trying to make up for excess consumption during the day by munching on a celery stick they will not be impressed. It is important that you are able to eat some of the same things that others are eating, otherwise the extra effort required to produce a separate special meal for yourself will eventually become unmanageable. One way to make this meal work is to serve yourself food on a bread-and-butter plate, allowing only a tablespoon or so of each portion and leaving space on the plate between each item. Serve fruit for dessert if you cant break the habit of having something afterwards.

Supper

The after-dinner desire to graze is a tough thing to beat. Often boredom rather than hunger is involved. Try going for a walk or reading a book rather than watching TV or sitting on the computer. People with night-eating disorder eat in response to the stimulation offered by devices like the TV or Computer and will struggle with their weight unless they learn to turn them off earlier in the evening.

Alcohol

Alcoholic beverages are very high in calories. If you drink more than a couple of drinks you will completely negate any good work done during the day. Alcohol is an appetite stimulant and drinking will disinhibit you and make you more likely to eat high-calorie snacks, so a 'big night' once a week or a couple of nights having a couple of drinks will probably stop you losing any weight at all. Try having a large diet drink or soda water before any alcoholic drinks at home or at social events and this will stop you from drinking alcohol quickly because you feel thirsty. If you drink more than a couple of alcoholic drinks more than a couple of times a week, you will struggle to lose weight and keep it off.

Food choice

The band will suppress your hunger, and slow you down, but it won't force you not to eat. Any operation that forces you to stop eating (such as jaw wiring) will fail, as it will not allow you to live and function as a normal person.

It is important to try to control the times that you eat, the speed that you eat and the types of food.

Drinks at mealtime

You should drink before rather than after you eat. Drinking after food will wash the food through and you will feel hungry again. Drinking before you eat will suppress your hunger and make it easier to swallow lumpier things.

Try to develop an eating routine

Our modern eating habits do not work well with a band. You will soon find that you have difficulty eating on the run. Eating and drinking while walking, talking or driving need to become a thing of the past. This has three potential benefits:

1. It limits spontaneous or 'empty' eating between meals.
2. It encourages planning of meal size and composition.
3. It encourages you to take part in the important ritual of sitting down and having a meal.

As you will often have a reasonable routine during the day, you should plan your eating in a predictable way rather than just letting it happen.

Speed

You will find that the speed of your eating slows dramatically, as you have to wait for each mouthful of food to pass through the band. You should use this slow pace to help you savour your food, rather than aiming to eat large portions. Because it takes a longer time to eat, you can therefore use a 'stopwatch' method for choosing how much to eat rather than finishing everything on the plate. Once 20 minutes have passed, or others at the table have stopped eating, you could use this as a cue to stop yourself. Do not save the rest of the food for later.

Food types

This is not a diet. You do not need to eat special foods, although many people substitute some meals for diet drinks or something similar for convenience when they are actively trying to speed up their weight loss.

You should plan to gradually vary the foods you buy and prepare at home, but there is no reason to move away from normal food. As the band is tightened, you will find that eating some foods will become difficult and you will either move away from them or find other ways of preparing them.

Some suggestions:

- Substitute wholegrain toast or rice cakes/dry crackers for white bread.
- Use herbs and spices for flavour and oil spray rather than butter.
- Avoid cream or butter sauces, and use tomato sauces or other alternatives.
- Fish is often easier to prepare for meals than some red meats, although casseroles, mince and rissoles are usually fine.
- Lamb cutlets are also a reasonable meat choice if cooked lightly.
- Fruit may need to be peeled, and some fibrous fresh foods may lose their appeal.

Sometimes having to plan your food is inconvenient, and if you don't have time to deal with this on a regular basis, you will have to avoid the trap of eating pre-prepared or fast foods, as they normally have two to three times the calories and salt than something made at home. Obvious exceptions to this are Weight Watchers™ or other slimmers' meals that you can purchase to have available when food preparation is too onerous.

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Notes and questions