

Patient Information

Bariatric Surgery

Dietary information for patients following gastric band surgery

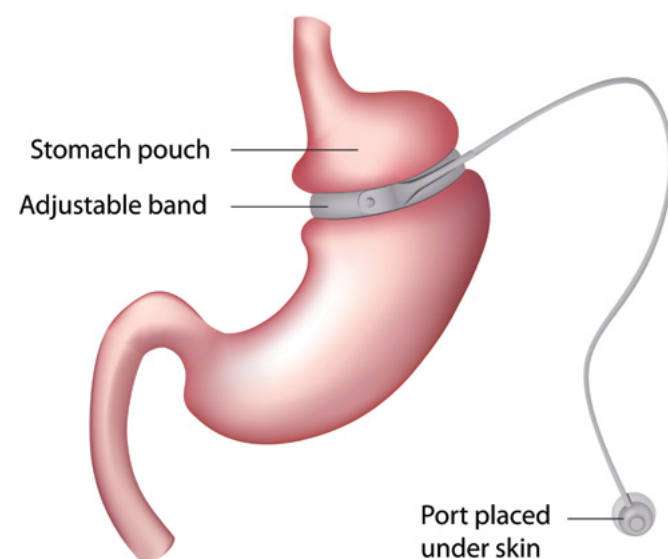


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Introduction

This information is for patients who have had gastric band surgery.



The Gastric Band

The gastric band is a device inserted around the top of your stomach to act as an aid with portion control. As you can see from the picture below it creates a narrowing which means the pouch at the top part of your stomach is easily filled, signalling to the brain that you are no longer hungry. Eventually the food squeezes past the band further reinforcing the feeling of fullness. Once past the band, food is then digested as normal. The band is adjusted through the access port which allows fluid to be inserted or removed to create the desired level of restriction and optimal weight loss.

Having a clear understanding of how the gastric band works is important for weight loss. It is important that you develop a good partnership with your band for success. You need to be clear on your expectations and understanding of the gastric band.

The aim of the band is to make you feel satisfied with less food and to keep you fuller for longer. Receptors which tell your brain you are full are located at the top of the stomach where the band is placed. The intentional delayed entry of food into the stomach and squeezing past the band pushes the receptors and signals to the brain that you are no longer hungry.

Obviously soft foods will easily pass the band whilst firmer foods will be quite tight. It is the firm foods that work best in satisfying the appetite. Think of using firm foods to hit the 'off button', to turn off your appetite and get the full feeling with a smaller meal.

Food is an enjoyable part of life; however we all need to get the balance just right for weight management. There can be a fine line between getting on well with a gastric band and going off certain foods altogether. Unfortunately healthy firm textured foods can often become a problem after the gastric band whilst some foods will never be restricted.

Crisps or biscuits are such an example; they are well lubricated by their high fat content and will easily slip past the band. These foods turn into a smooth liquid like consistency. Obviously no matter how tight you have the band, they will readily pass the band without pushing your 'off button'. We often find some people requesting their gastric band be filled inappropriately to restrict these kinds of liquefiable foods.

Overfilling the gastric band is a bad idea. It is often the healthy foods that become far too difficult to eat, whilst foods high in fats and sugars will still pass easily. Painful heartburn is just one side effect of an overfilled gastric band.

In summary, the key to success is to turn off the appetite sooner rather than later. Firm textured foods are the key to achieving this, you must aim to balance your intake of solid foods and avoid others high in calories with a sloppy smooth texture.

After Surgery Day one onward

When the band is in place a small amount of fluid is inserted, however your first major band fill will be six weeks after surgery. This allows the band time to 'glue' itself into position. During these six weeks you will need to follow a special diet before returning to normal textures. This process protects the band, allows it to settle into place and helps to prevent complications such as slippage.

The diet is set out over four stages:

1. **Fluids:** smooth liquids with no lumps
2. **Pureed food:** smooth consistent texture, no lumps

3. **Soft moist:** soft foods, lumps allowed
4. **Normal textured varied healthy diet**

The morning after surgery you will start on sips of water, if you tolerate this well you will progress to stage one of the bariatric diet. The bariatric clinical nurse specialist, or dietitian will discuss the diet with you before you go home.

Keep in mind that your surgery took place on day one of week one. You should continue each stage of the diet for two weeks unless advised otherwise by your doctor, Bariatric nurse or dietitian. At the end of each two week period you can progress to the next stage if all is well and you are having no difficulties. It is important to follow the food restaging protocol as described below.

Food restaging protocol

Stage one

Weeks one and two
Fluids only. Smooth liquids with no lumps.

This stage of the diet allows your stomach to rest and recover from the surgery. Keep in mind the part of your stomach above the band is about the size of a golf ball. The smooth liquid stage of the diet helps preserve and protect the band.

Stage Two

Weeks three and four

Pureed Food. Smooth consistent textures with no lumps.

This stage continues the gentle progression to normal food textures. You can progress to the next stage at the start of week five.

Stage Three

Weeks five and six

Soft, Moist Foods. Lumps are now allowed.

At this stage you can try soft moist textured foods. With trial and error you will find some foods are more difficult than others. It is very important at this stage to get in the habit of chewing well to avoid discomfort or food return. You should eat slowly and stop eating as soon as you feel full. Aim to eat without distractions and learn to recognise when you've had enough. In reality this may be much less than you would expect.

Stage Four

Week seven and onward

Solid foods, a return to varied textures and a healthy balanced diet

By now you should be able to tolerate a variety of food textures; however there may be certain foods you will struggle with. Now is the time to establish and practice healthy eating practices. Try to avoid the factors that led to your weight gain in the first place. Self monitoring is the key to long term weight loss. Keep in mind this will take planning and focus, however with practice good habits should eventually stick.

Eating well is especially important after weight loss surgery. Aim to follow a balanced varied diet for optimum health. A healthy balanced diet includes a variety of foods from the five food groups. After weight loss surgery your appetite may be considerably reduced, however you should still try to follow the basic pattern of three meals per day.

More information

Each stage of the diet is covered in greater detail on the following pages.

Creating the optimal tightness of the band

After six weeks or so you will have your first band fill. Please keep in mind there is no 'magic amount'. The amount that is just right for one person will be very different for another. Our bodies are all slightly different. After your first band fill you may notice significant restriction. This may be quite alarming, however things will settle over one to two weeks.

A band has the right fill when your appetite is satisfied with just three modest balanced meals daily. Again you should aim to get in the habit of having a regular breakfast, lunch and dinner. This pattern is one of the attributes of successful weight reducers with the band. The effect of appetite suppression is lost if you regularly miss meals. Going long periods without food does not help to achieve or sustain good weight loss; this habit can lead to cravings that are hard to manage.

As already mentioned you should aim to develop a good working relationship with the gastric band. By having regular balanced meals you should find your appetite is easily satisfied and cravings should be well controlled. Please note that it may take a number of band adjustments to reach the optimum balance for weight loss, and enjoyment of a healthy varied diet.

If you are sure that you are working well with the band but still find that you are physically hungry between meals, or can manage big portions, or seek more food after a meal, then you may require another adjustment. This may also be the case if the weight loss has been less than expected.

Before another adjustment a member of the bariatric team will discuss your diet and how you are working with the band. You may feel the answer for further weight loss lies with a tighter band. Keep in mind there are many reasons for unsatisfactory weight loss and you should be very clear on what is holding up your progress. You may be eating outside of physical hunger or bad habits and poor food choice may persist. On the other hand you may simply be choosing soft food textures a little too often.

If you find you are frequently comfort eating then tightening the band is not the solution. This is likely to create more problems such as difficulty swallowing, reflux, heartburn, night cough, and frequent vomiting. You may then go on to develop a reliance on liquid or sloppy foods which are often high in calories and lack nutritional value. It is common that overfilled bands can cause weight regain. In these difficult situations the nurse or dietitian may be helpful to discuss alternative coping strategies instead of using food or looking for further band adjustment.

It is widely accepted that three meals per day helps manage hunger signals and cravings. Optimal weight loss comes from a sufficiently tight band which allows you to feel full after a modest food portion at breakfast, lunch and dinner.

Striking a balance between an adequately inflated band, good food choice and lifestyle is the key to long term success. It may take a while for you to achieve this balance with the band. You will be seen regularly by the bariatric nurse in the first few months after your surgery to ensure the band is working well.

Tolerance problems

Tolerance problems can happen at any time even with a well adjusted band. Typically problems can arise from:

- Eating too quickly
- Simply eating too much: or too large a mouthful in one go
- Firm foods textures not chewed sufficiently
- Drinking too much fluid
- Eating and drinking at the same time
- Introducing solid foods too early
- Hot and cold foods may also be an issue

Don't skip meals

By missing meals you risk slowing your metabolism and stalling your weight loss. People often complain of feeling flat, tired and lethargic after weight loss surgery. This is often the result of eating less than the ideal three small meals daily.

Supplements

During the weight loss phase it is generally recommended to take a complete multi vitamin and mineral supplement once daily for the first year after gastric banding. You can start the supplements in tablet form six weeks after your operation. If you wish you can start earlier with a liquid or chewable supplement such as any of the following: example:

- Centrum chewable
- Bassett's chewable
- Boots own brand chewable
- Forceval soluble

Other medications

All other medications, unless they are tiny pills should be taken in liquid, dissolvable form or crushed until six weeks have passed. Capsules can be opened and added to a small amount of water or other drink to mask the taste. Please check with your GP as some capsules are designed for slow release and this may be an issue. You can get a pill crusher from your pharmacist or ask for one on the hospital ward before discharge. If you are taking multiple medicines you may need to space them at five to ten minute intervals so they are easier to pass. If you have diabetes your medications will need review, please ensure that you speak to a member of the medical team about this before going home. You will also need to make an appointment within six weeks to speak to your GP or practice nurse who deals with your diabetes medications.

Constipation

After gastric banding constipation can be a problem, to avoid this aim to drink enough fluids in between meals during your day. If you are having particular problems then you could try Senakot or Fybogel both of which can be bought at the supermarket or chemist.

Why is this information important?

The texture progression from liquid to solids is important to reduce discomfort or unpleasant side effects and to ensure a good lifespan of the gastric band.

It is important that you eat well after weight loss surgery as it may become a challenge to get enough vitamins and minerals from your diet. The consequences of a poor diet can vary. In the short term this may lead to dry or cracked skin, nails or hair loss. In the long term poor nutrition can lead to increased risk of developing other health problems or even weight regain.

You should talk to your dietitian or clinical nurse specialist if you have any questions relating to the diet or if you experience difficulties.

Dietitian: **020 8725 1022**

Nurse: **020 8725 4238**

Stage One: Fluids – smooth liquids

This information is for patients who have had gastric banding surgery.

How long do I need to be on Stage One of the diet?

You should expect to be on this stage of the diet for two weeks. Please remember your band is still settling into place.

Dietary aim

The aim of each stage is to eat well whilst minimising the possibility of discomfort and side effects. The key thing with this stage is to stick to fluids and ensure a good protein intake.

Suitable fluids

All fluid foods should be completely smooth with no bits or lumps. The liquids you have should be thin enough to pass through a straw. After weight loss surgery your appetite may be greatly reduced and you will only be able to manage small amounts. For this reason it may be a challenge to get enough protein and fluid during the day. It is therefore important to choose nutritious protein rich fluids and drink little and often.

Quality protein rich liquid choices:

- Milk -semi-skimmed or skimmed. Try to include a pint of milk each day.
- Soups are ideal. Fresh ready made soups are a good choice. There is a good variety of flavours available in most supermarkets. Any supermarket home brand fresh soups will do. You will find them in the chilled part of the supermarket.

Choose high protein soups that contain meats, beans or other pulses. **Blitz them in your blender; you may need to add water or milk until smooth.**

- Creamed soups – cream of tomato, potato and leek or any soup with no bits are a good choice. By adding a little milk you can improve the protein content.
- If in doubt of any texture use a blender or sieve to remove the lumps.
- Powdered cup soups have little nutritional value, however Nestles 'Build Up' products are acceptable, and you can find them in most supermarkets or chemists.
- **Complan** soup or drink products.
- **Ovaltine or Horlicks** made with semi-skimmed milk – be careful how much you use, three teaspoons per mug is a good measure.
- **Slimfast** ready made drinks in the bottle, 330ml.
- Low fat, fat free or fruit yoghurts are also a good choice. Avoid the ones with added crunchy toppings.

Fluids for hydration: drinks to include between meals for keeping hydrated.

- Tea or coffee, with milk. Use sweetener if desired
- Stock cube, Marmite or Bovril in hot water
- Diluted fruit juice (½ juice, ½ water)
- Plain water, flavoured water (sugar free), sugar free jellies or no added sugar squash
- Avoid sparkling water or carbonated beverages

How much and when?

- Avoid drinking shortly before a meal. These drinks may fill you up and reduce your capacity for the protein rich choices.
- Your total fluid aim is around six to eight cups per day. This is equivalent to two litres or four pints. This includes the protein rich liquid meals as well as all fluids for hydration such as water, tea, coffee etc.
- Drink little and often, try to drink 100 to 200mls at least every hour.
- Go slowly, take small sips.
- It is important to take small amounts to avoid stress and discomfort to the stomach.
- **Stop** drinking as soon as you feel full.
- You may find it useful to carry a bottle of water or other drink container with you. Remember to take small and frequent sips.

Avoid these liquids

- Fizzy or sparkling drinks (these can make you feel bloated and uncomfortable)
- Alcohol, as this can irritate the stomach early on. It also contains empty calories and does not help with weight loss.
- Any liquid with bits or lumps. Lumps may be too thick to pass easily at this stage and irritate the stomach and lead to vomiting.
- Fluids with **excess sugar and fats** can make you feel unwell or cause excessive bowel motions. Keep in mind that in the long term it is advised to avoid sugar containing drinks as they will slow your weight loss outcome.

Sample menu

Breakfast

- One small glass (~150mls) of protein rich fluid chosen from the list above
- Sips of fluid for hydration

Mid morning

- One small glass of milk
- Sips of fluid for hydration

Lunch

- One small cup of high protein soup as described above
- Thin yoghurt
- Sips of fluid for hydration

Mid afternoon

- One small glass of milk
- Sips of fluid for hydration

Evening meal

- One small cup of soup, savoury Complan or other protein rich fluid listed above
- Sugar free jelly or thin yoghurt
- Sips of fluid for hydration

Supper

- One small cup of milk or Ovaltine
- Sips of fluid for hydration

When can I move on to Stage Two?

If you are tolerating this diet well and have no complaints, then you can safely progress to the next stage after two weeks.

Questions?

If you have any questions or worries, please call your dietitian.

Telephone: **020 8725 1022**

Stage Two: Pureed foods

This information is for patients who have had gastric banding surgery.

How long will I be on Stage Two of the diet?

You should expect to be on this stage of the diet for two weeks. Please remember your band is still settling into place.

Foods to have

With all food stages, texture is the key consideration. By now the texture should be thicker than stage one

but still without lumps. Add liquids and blend until all foods are smooth.

Suitable foods for this stage (two) are puree in texture and have a consistency of tomato ketchup. You will need to puree your foods at home using:

- a potato masher
- a blender or hand blender
- a food processor

Variety with your diet is important to get all the nutrients you need. As with all stages you should aim for balanced meals, you should include a protein, carbohydrate and vegetable portions at each meal. Suitable foods in each of these groups include:

Protein	Carbohydrate	Vegetables/fruit
<ul style="list-style-type: none"> • Pureed chicken, lamb, beef, turkey, ham, Quorn, soy mince with gravy or tomato based sauce • Fish pureed with a sauce e.g. parsley • Dahl • Pureed beans and pulses, e.g. lentils, kidney beans, baked beans, chick peas or butter beans. • Hummus • Light cream cheese • Cottage cheese • Low fat/ fat free yoghurt or fromage frais • Any protein rich fresh soup from stage one of the diet 	<ul style="list-style-type: none"> • Smooth runny mashed potato • Smooth runny sweet potato • Yam/plantain made smooth and runny • Cassava blended until smooth and runny • Creamed rice • Porridge • Weetabix with plenty of milk • Ready-brek • Pureed pasta 	<ul style="list-style-type: none"> • Any vegetable without skin/pith can be pureed or blended such as carrots, parsnips, sprouts, cabbage, broccoli, cauliflower, spinach, aubergine etc. • Fresh frozen or tinned vegetables are good choices and puree easily • Fruit can also be pureed e.g. banana. Stewed or canned fruit can also be used. Have a maximum of two fruit portions per day

Foods to avoid

- All solid foods and any food that requires considerable chewing
- Tough skin on foods such as tomato or dried fruits
- Sweet corn
- Tomato seeds
- Bacon and meat with 'gristle' and meat that has not been pureed
- Hard cheese
- Potato skins
- Toast, bread, rusks, nuts, seeds

Food preparation tips

- Use a blender or liquidizer to puree your foods.
- Add fluids such as gravy, sauces or water until you reach the desired consistency.
- The food will cool down as you puree. Try reheating a little before serving.
- Puree the food groups separately; meats and vegetables look more appealing this way when not combined together.
- Puree served in bowls often looks better than on a plate.
- Cook fish until flaky.
- Ready prepared fish in sauce is a good choice. Cod in parsley sauce is popular.
- Cook meats until soft and liquidise with a sauce or gravy.
- Food does not have to be bland, try adding herbs and seasoning. Adding condensed soups will also add flavour as well as valuable protein.
- You should still chew your foods, even though it is pureed.

Tolerance

- Eat food very slowly, set aside 30 minutes for each meal, don't over do it.
- For good tolerance you may find it helpful to eat with a teaspoon to get the mouthful size just right and to slow things down.
- Sit upright in a chair if possible. Don't lay back on the sofa or chair after a meal, this can lead to heartburn.
- Try to eat without distractions such as the TV.
- If you do suffer any trouble or difficulties then it is well advised to return to the previous texture stage and to eat smaller portions until things improve.
- If your appetite is not good then aim to eat the protein part of the meal first.
- Consume food and fluids separately – wait 30 minutes after eating before you have a drink.
- Remember fluids for hydration taken immediately before a meal may spoil your appetite for something more nutritious.
- Keep in mind that you need to re-learn how to eat and to establish good dietary habits that you can sustain in the long term.
- **Measure your meals. By using a ladle or an empty yoghurt pot (200g or so) you can ensure the same amount is eaten at each meal.**

Fluids for hydration to have between meals

- Do keep your fluid intake up between meals.
- Tea or coffee, with milk. Use sweetener if desired.
- Stock cube, Marmite or Bovril in hot water.
- Diluted fruit juice (½ juice, ½ water).
- Plain water, flavoured water (sugar free), sugar free jellies or no added sugar squash.
- Avoid sparkling water or other carbonated beverages.

Sample Menu

Breakfast

- around 50 grams (one to two ounces) of soft mushy cereal such as one Weetabix or porridge made with semi skimmed or skimmed milk.

Snacks mid-morning and mid-afternoon

- ½ pot of yoghurt, 110mls or ½ tea cup of pureed fruit or ½ tea cup of milk.

Lunch and dinner

- Measure your meal portion as suggested on page 12.
- ½ the meal portion should be a protein food – see the table on page 11.
- The remaining ½ portion a carbohydrate and vegetable option.

Suggestions

- Chicken casserole blended with separate smooth mashed potato and vegetables.
- Pork and apple sauce purees well – accompany this with a small portion of mash potato.
- Blended tinned mackerel or sardines in tomato sauce with runny smooth mashed potato and pureed vegetables.
- Pureed minced beef in gravy with runny smooth mashed potato and pureed vegetables.
- Puree beef bolognese or blended chilli con carne with pureed pasta.
- Soup as per stage one of the diet is also an acceptable option, though do puree/blitz until smooth.

Supper

- 28g (one ounce) pureed fruit with ½ pot yoghurt or ½ tea cup milk.

In addition

- Sip one tea cup ~ 200ml of liquid between each meal or snack. This is important to stay hydrated and avoid constipation.

When can I move on to Stage Three?

If you are tolerating this diet well and have no complaints, then you can safely progress to the next stage after two weeks.

Questions?

If you have any questions or worries, please call your dietitian.

Telephone: 020 8725 1022

Stage Three: Soft textured foods

This information is for patients who have had gastric banding surgery.

How long will I be on Stage three of the diet?

You should expect to be on this stage of the diet for two weeks. Please remember your band is still settling into place.

What is soft food?

Soft food is ordinary food that is not hard or fibrous like nuts or celery. It is not a mixed consistency like minestrone soup, or crumbly like biscuits or pastry.

Soft food does not have a skin or pith such as orange segments, peas or sweetcorn. Stage three introduces foods with a firmer texture than puree but should be soft enough to eat without needing to cut with a knife. You should be able to eat soft foods with a spoon or fork only.

Diet aims

Your meals should be balanced and contain protein, carbohydrate and vegetables. Remember it is important to ensure the foods you choose are nutritious. Aim to have three small meals a day and one of the suggested snacks if you feel hungry between meals.

Foods to avoid

- Any food with a tough skin such as sausages, tomatoes, apple, or rind on bacon.
- Stringy or fibrous vegetables such as celery, asparagus, sweet corn or peas.
- Fizzy drinks -these can make you feel bloated and uncomfortable. Alcohol may irritate the stomach; it is also high in calories and may limit your weight loss.

Fluids for hydration to have between meals

- Remember that constipation is a constant threat. To avoid constipation try to keep your fluid intake up between meals, though avoid drinking shortly before a meal. Fluids may fill you up and reduce your capacity for the protein rich healthy meals.
- Tea or coffee, with milk. Use sweetener if desired.
- Stock cube, Marmite or Bovril in hot water.
- Diluted fruit juice (½ juice, ½ water).
- Plain water, flavoured water (sugar free), sugar free jellies or no added sugar squash
- Avoid sparkling water or carbonated beverages.

Eating for good tolerance: remember the tips on page 12.

Sample menu

When you get up

- Fluid for hydration such as a cup of tea or coffee or glass of diluted fruit juice.

Breakfast

- One Weetabix with semi-skimmed milk or one sachet of instant oats or small bowl of porridge. Other options include soft cooked eggs in any fashion; you may wish to include a peeled tomato and a slice of soft white or brown bread (crust removed).
- Snacks mid-morning, mid-afternoon or supper: ½ pot of yoghurt or fromage frais, ½ tea cup of fruit tinned in natural juice or ½ tea cup of milk, sugar free jelly.

Lunch

- Cheese omelette made with two eggs and reduced fat grated cheese, one slice of mashed potatoes. You may wish to add some peeled tomatoes or mashed vegetables.
- Or a small portion of lasagne, shepherds pie, cottage pie.
- Try ravioli, or other well cooked pasta such as spaghetti bolognese.
- Corn beef hash and vegetables.
- Fish in parsley sauce and soft cooked vegetables.

Suitable foods are

Protein	Carbohydrate	Vegetables/fruit
<ul style="list-style-type: none"> • Minced chicken, lamb, beef, turkey, ham, Quorn, soy with gravy or tomato based sauce • Flaked fish with a sauce e.g. parsley • Dahl • Beans and pulses crushed with a fork e.g. chickpeas, kidney beans • Cream cheese • Cottage cheese • Reduced fat hard cheeses grated • Low fat/fat free yoghurt/ fromage frais • Protein rich fresh soups, see suggestions from stage one • Scrambled egg or soft omelette 	<ul style="list-style-type: none"> • Mashed potato • Mashed sweet potato • Yam/ plantain • Cassava • Creamed rice • Porridge • Weetabix made with plenty of milk • Readybrek • Well cooked soft pasta • Well cooked soft rice (some people do report problems with rice) • Cous cous, polenta 	<ul style="list-style-type: none"> • Soft peeled fruit • Any vegetables, fresh, frozen or tinned • Be sure to avoid skins, pith • Cook them until soft e.g. Carrots, parsnips, sprouts, broccoli, cauliflower, spinach, aubergine etc. • Fresh frozen or tinned vegetables are good choices and puree easily • Fruit can also be pureed e.g. banana. Stewed or canned fruit can also be used. Have a maximum of two fruit portions per day.

Evening meal

- Minced meat in a tomato sauce with well cooked pasta and mashed vegetables.
- Chicken casserole, mashed potato and vegetables.
- Tinned fish such as mackerel or sardines mixed in tomato sauce. Add mashed potato and vegetables.
- Cauliflower or macaroni cheese.
- Minced beef in gravy with mashed potato and vegetables.
- Beef bolognese or chilli con carne with mashed potato.
- Any thick soups such as pea and ham, potato and leek or lentil soups.

In addition

- Drink tea, coffee, water, low calorie fruit squashes, or flat diet fizzy drinks between meals. Sip one tea cup ~ 200ml of liquid between each meal/snack. This is important to stay hydrated and avoid constipation.

Your dietitian can provide you with further suggestions and help with meal planning.

When can I move on to Stage Four?

If you are tolerating this diet well without complaint, then you can safely progress to the next stage after two weeks.

Questions?

If you have any questions or worries, please call your dietitian.

Telephone: **020 8725 1022**

Stage Four: Solid foods and back to a normal healthy diet

This information is for patients who have had the gastric banding surgery.

When can I start stage four?

By now your band will be securely in place and you should now be able to return to a varied diet of normal texture.

What is stage four? Stage four represents a return to normal, varied food textures; it is not a special diet but a guideline for basic healthy eating principles. On page 19 you will find the eatwell plate which defines the Government's recommendations on healthy diets. It makes healthy eating easier to understand by giving a visual representation of the food groups and proportions of each needed for a healthy and well balanced diet.

The eatwell plate applies to most people – no matter the ethnic origin, whether they are a healthy weight, overweight, eat meat or are vegetarian. It is appropriate for those having the gastric band and those without. The eatwell plate does not apply to children under the age of two because they have different nutritional needs. By applying these principles of healthy eating you will get the best from your gastric band. You may already be aware of the principles of healthy eating but have struggled to follow this in the past. The gastric band provides a vital opportunity to get things on track.

Problem foods

Despite returning to normal texture diet there are likely to be certain foods you will not tolerate with

your band. Everyone is different but the following are quite common and tend to be avoided by most people with a gastric band:

- Bread
- Dry meat (meat is best tolerated when cooked until tender using a moist cooking method such as casseroles or roasting).
- Stringy vegetables e.g. leeks, celery
- Vegetables with tough skins e.g. sweetcorn

Getting weight loss results that last

You should aim to continue as you set out. During the assessment for weight loss surgery the bariatric team would have emphasised the importance of using the surgery as a tool to help you improve your diet and lifestyle for long term success.

As you now know, weight loss surgery is no guarantee that you will keep the weight off and that there is always a risk that you may regain the weight. Lasting results take commitment and hard work. Some doctors' report that up to half of their patients may regain considerable weight over the years after the gastric band.

To avoid this you need to be very clear on what has led to your weight. You must understand the factors that have made it difficult for you to lose weight and keep it off.

You have to avoid falling back into the old habits or situations that led to your weight. Soon after the gastric band things will be different. The band is intended to alter your appetite and your capacity to eat. Over time these effects can diminish a little as the body adjusts to the band. For this reason it can be easy to fall back into old habits. Certain dietary habits will defeat the weight loss surgery for example grazing, sweet eating and high calorie drinks.

Your success relies upon being able to identify where you may be off track and where improvements are needed. With that knowledge you can then make a plan, put it into action and monitor your progress. Practice makes perfect as they say, and to sustain changes in habits, you need to keep practicing.

Why is balanced eating so important?

Eating well is important after gastric band surgery. You need to ensure your diet has sufficient vitamins, minerals and protein for health and vitality. Good weight loss is not your only concern. The long term consequences of not eating well can lead to illness as a result of nutrient deficiencies. That of course depends on the duration of deficiency. Short-term effects may show as dry or cracked skin/nails or hair loss, however long term effects may be:

- Anaemia
- Osteoporosis
- Heart disease
- High blood pressure
- Diabetes
- Loss of teeth
- Depression and a general feeling of being unwell and lethargic.

Furthermore a good diet will help ensure the weight you lose is mainly body fat and not muscle. Protein foods (meat, fish, eggs and beans) are notoriously difficult to tolerate shortly after gastric band surgery, however do keep trying as things do improve in time. By eating sufficient protein you will retain important muscle tissue and maintain a strong metabolism.

Remember, healthy eating after weight loss surgery is not a 'special' diet. You should not feel the need to rely on diet products such as special meals or shakes. Surgery is designed to work alongside basic healthy eating. Follow the principles outlined below and encourage family members to do the same. Incorporating healthy eating principles for the whole family will make it easier for you to stay on track and feel supported.

So just what is a balanced diet?

A balanced diet contains all the vitamins, minerals and nutrients required for good health. To achieve this, you need to include a variety of foods. The eatwell plate below shows the five food groups and depicts the proportions in which the food groups should be included on your plate.

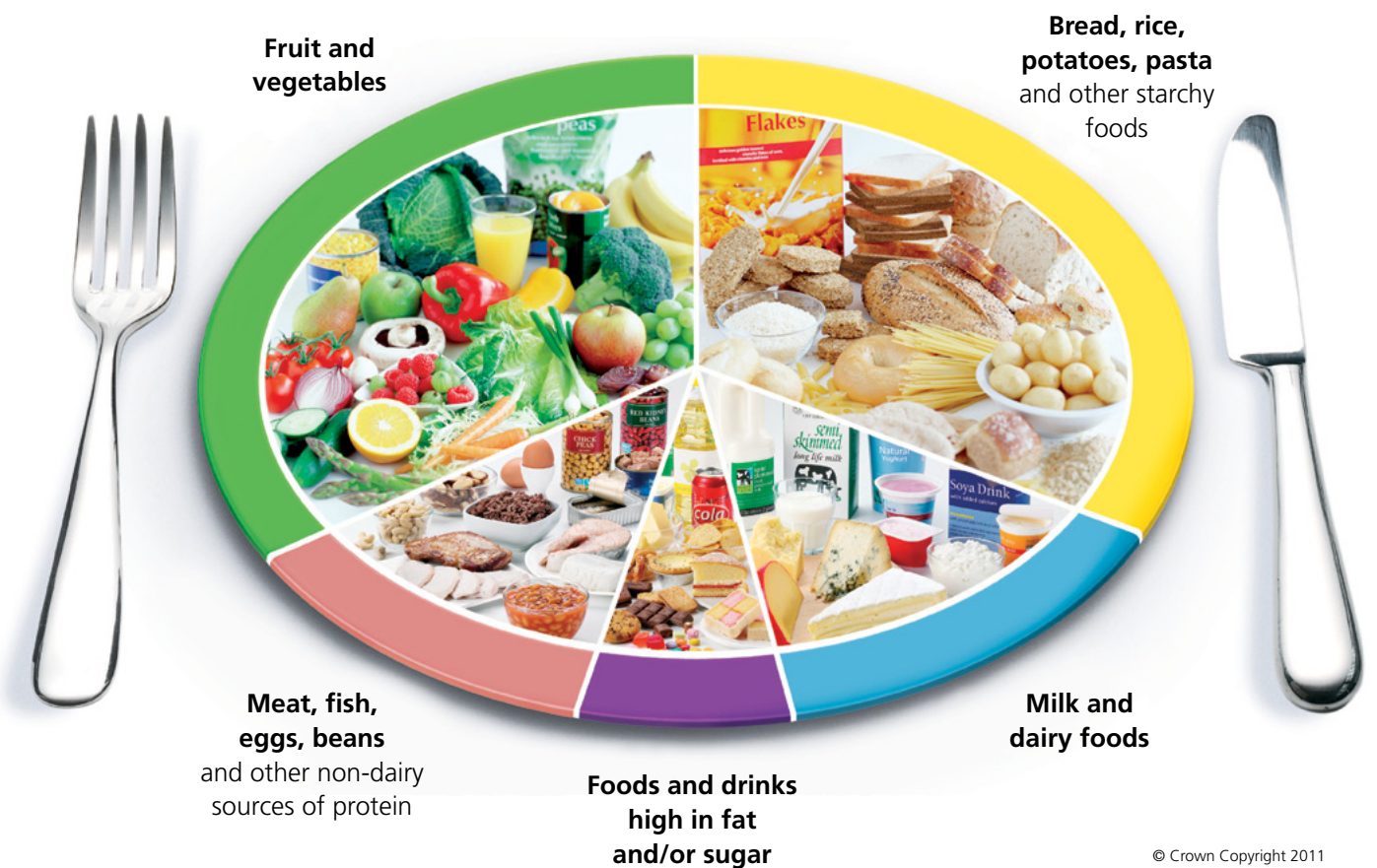
Being nutritious

There are five main food groups. You will find some foods fit into more than one food group e.g. dairy foods are a combination of two food groups or more.

- Protein foods
- Fruit and vegetable foods
- Dairy foods
- Breads, Cereals and other carbohydrate foods
- Fats and Sugars

The Eatwell Plate

Use the eatwell plate to help you get the balance right. It shows how much of what you eat should come from each food group.



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Protein foods

These foods are important for the growth and repair of body tissue. They also contain essential vitamins and minerals including zinc and iron. This is generally considered the most important food group after having weight loss surgery.

You should try to include **two to three** portions of these foods throughout the day. You should also aim to eat the protein part of your meal first, before you are too full up.

- Protein foods are better tolerated when:
 - Cut thinly /finely** as in sliced ham or turkey breast
 - Minced or ground** as in lamb, beef or chicken mince
 - Stewed/casseroled/slow cooked**
- Eggs are useful for increasing your protein intake. Often you may find that eggs 'stick' in your chest. This is a common feeling, just make sure you cut small and chew well. Scramble your eggs slowly, stop cooking just as they set. If cooked too long they will become quite tough and lead to that 'sticking' feeling.
- Fats and skin on any meats should always be removed before cooking. This will help you to achieve good weight loss and protect your heart health.
- Fish is a good source of protein and is best steamed or poached. White, low-fat sauces may also help improve your tolerance. Fish in parsley sauce is one example. Fisherman's Pie or Mornay is good choices. Seafood such as prawns, squid or mussels may be a little too tough in the beginning and difficult to digest. If having these, mince them or chew very well (at least 20 chews).

- Cheese, milk and yoghurt are nutritious sources of protein. They contain important calcium for good bone health. Choose low fat options where possible.
- Beans and pulses like lentils, chickpeas, Dahl, hummus, kidney beans are all excellent sources of protein, fibre and carbohydrate. This food group is quite convenient as small tins can travel well and make a suitable lunch on the go. Beans and pulses will help you meet both your protein and carbohydrates needs.

Dairy foods

Dairy foods contain protein, vitamins and minerals such as calcium (important for bone health and to regulate your blood pressure). Some dairy foods can be high in fat, choose low fat where possible. Aim for **two to three** servings per day. Choose low-fat, fat free or skimmed options where possible – these generally contain more calcium as well. Changing from full-fat to semi-skimmed milk cuts out the equivalent of 810 teaspoons of fat per year for the average person!

Breads, cereals and starchy foods: carbohydrates

This food group is an important source of fibre, vitamins, and minerals with a small amount of protein. Carbohydrates provide your body with energy and are important for brain, bowel and heart health. They are low in fat until you add butter, oil or margarine so go easy with them.

Where possible choose wholegrain carbohydrates, such as wholemeal bread, or whole-wheat pasta. Wholegrain cereals are fortified with extra vitamins and minerals and are rich in B group vitamins. The carbohydrate food group includes bread, potato, cereal, rice and pasta. Small amounts of these foods, taken at each meal will help to regulate your blood

glucose/sugar level which is important for hunger and appetite regulation and good concentration levels!

Be careful with how you cook and eat the carbohydrate food group especially in the period shortly after surgery. You may face serious difficulties with certain textures. Stodgy carbohydrates such as bread and rice may not go down well. If carbohydrates are under-cooked or not chewed well they often cause discomfort. Your tolerance to carbohydrates will improve in time.

Fruit and vegetables

Fruit and vegetables contain water, fibre, and important vitamins and minerals. They are rich in vitamin C, folate and potassium. Including this food group will help you meet your nutritional requirements along with good weight loss. This food group helps boost the immune system and will help to prevent constipation that can often occur after weight loss surgery. This food group should be included with your meals. They help complete the balance without adding many calories.

You should aim to include at least **three servings** of this food group per day. One fruit and two vegetables is a good portion target. Here is some general advice about fruit and vegetables:

- Skins, seeds and pips on some fruit and vegetables may be difficult to digest unless chewed properly.
- It may be best to avoid those with tough skin or pith (they may not digest properly) such as oranges, pineapple, sweetcorn etc.
- Fruit juices contain good amounts of

vitamins and minerals. However juices are also a concentrated source of fruit sugar (fructose) so may in fact limit your weight loss if had too often. If having juice, have it between meals (not with a meal) and try a small amount only: 50 to 100ml (¼ to ½ cup) diluted with water.

Fats and sugars

Fats such as butter, margarine and oil are very high in calories and should be used in moderation. However, they do contain essential vitamins for good health including A, D and E. Despite the clear health benefits of some fats in the diet, too much will slow your weight loss. **Aim for just four teaspoons** in total added to your meals over the whole day. Choose unsaturated oils such as rapeseed, sunflower or olive.

Some foods contain a lot of 'hidden fats' that lubricate the food allowing it to slide down with ease. You may find you can eat more high fat foods than expected, limiting your weight loss. It is good practice to develop your understanding of hidden fats in foods. Read labels and make sure you understand the information. Ask your dietitian for a leaflet on food label reading if needed.

Sugars like table-sugar, brown sugar and honey add unnecessary calories. Sugars are used in cakes, biscuits, chocolate and sweets (usually with added fats). Do not eat these foods as a replacement for

a meal or snack as this will reduce your weight loss and limit good nutrients. If you do include them, have only a small amount (one square of chocolate, ½ muffin and have with your meal to limit the effect on your blood sugar/glucose levels.

Fluids

Fluids are essential to prevent dehydration. Dehydration can lead to:

- Constipation, headaches
- Impaired body function
- Poor concentration ability

Aim for at least 1500ml (three pints) of fluid each day, taken between (not with) a meal. Fluid easily fills you up and may prevent you eating sufficient nutrients over the day. Limit tea or coffee to a total of four cups per day as it can affect absorption of nutrients from your limited food intake.

You may find fizzy diet soft-drinks or sparkling waters hold too much gas in your stomach pouch which may be quite uncomfortable. There is some evidence to suggest excessive fizzy drink consumption can lead to stretching of the stomach and loss of restriction.

If you do not like water or find it hard to drink, try:

- no added sugar squashes
- sugar free flavoured water
- a squeeze of lemon/lime juice in water
- diluted fruit juice
- still diet drinks

Alcohol

Alcohol can be an enjoyable part of your social life or family meal times, however great care needs to be taken as it can increase your appetite and lower your resolve to avoid high fat snacks such as nuts and crisps.

We would recommend that you drink only one unit of alcohol per day or less. This is less than the national recommendations for alcohol (which is three units per day for men and two units per day for women). Beware that after weight loss surgery alcohol is quickly absorbed so be careful.

One unit of alcohol is approximately:

- ½ pint beer or cider (choose a non-fizzy type such as bitter)
- One small glass of wine (ABV 12%)
- One pub-measure of spirits = 25ml

Food servings

Each of the foods listed below equals one serving or portion. The quantities have been adjusted for a diet after weight loss surgery and may be different to normal food portions (promoted to the general public for good health). Please note this is just a guide.

Protein foods (two to three portions per day)

(Foods marked with the * are both protein and dairy foods)

- 40g to 50g (up to 2oz) cooked lean meat, fish, poultry or Quorn
- One egg
- 40g (¼ cup) cottage cheese*
- One small tub / 30g – one ounce of light cream cheese*
- 1/3 cup lentils/beans/legumes (without skin)

Dairy foods (two to three portions per day)

(Foods marked with * are both protein and dairy)

- One cup skimmed milk*
- One small (100g pot) yoghurt *(preferably low fat)
- 1½ slices of cheese*
- One match box portion of cheese*
- ½ cup custard*
- ¼ cup cottage cheese*
- One small tub 30g (one ounce) light cream cheese*

Fruit and Vegetable Foods (three portions per day)

- ½ cup (75g or 3oz) cooked fruit or vegetables
- ½ cup soft fruit such as pear / tinned peaches (in natural juice)/ stewed fruit
- ½ cup (125ml) fruit or vegetable juice – keep to one glass per day

Breads, Cereals, Starchy Foods (two to three portions per day)

- ½ cup (100g or 4 oz) cooked or soft cereal such as porridge
- Two small melba toast /cream crackers
- Four water crackers
- ½ slice well toasted bread
- ½ cup (100g or 4 oz) well cooked rice/pasta/noodles/couscous
- ½ cup (75g or 3 oz) mashed potato
- One egg-sized new potato
- 1/3 plantain/green banana cooked (boiled or steamed)
- ½ slice yam/cassava

Fats and Sugars (three to four portions maximum per day)

- One teaspoon of fat – spread or oil
- One dessert spoon cream
- One teaspoon sugar, fructose sugar or honey (no limit on artificial sweetener)

For example a sample balanced meal plan may include:

Breakfast

- Porridge -½ cup with skimmed or semi skimmed milk
- Or one Weetabix with skimmed or semi skimmed milk, ¼ banana
- Or one small pot of yoghurt
- Or for a savoury breakfast try an Omelette with ham or cheese portion and one slice dried toast

Lunch

- Sliced ham or cheese on whole grain crisp breads
- plus one kiwi fruit or ¼ banana
- plus one small pot of diet yoghurt or drink of skimmed or semi skimmed milk
- Alternatively try ½ shop bought or home made sandwich

Evening meal, these all have a single protein portion or more included:

- One third of a Jacket potato, don't eat the skin, with ½ cup of beans and a little grated cheese.
- Chilli (½ cup cooked) with rice (one cup cooked).
- Spaghetti or couscous (½ cup well cooked) with minced beef or bolognaise sauce and grated cheese.
- Risotto (½ cup) with cooked minced chicken (½ cup) and ½ cup mixed vegetables (no skins, avoid peas and corn for the time being).
- Shepherd's pie (½ cup) with mashed potato or sweet potato/pumpkin (½ cup).

- Tuna Mornay (½ cup) with macaroni in tomato based sauce (½ cup cooked).
- Chickpeas (½ cup) and Mediterranean vegetables (½ cup) with no hard skins. Try tinned, peeled tomato instead of fresh, they are a little softer and may be better tolerated. Add a small amount of feta cheese for extra protein).
- Lentil soup (½ cup) with two Melba toast or whole grain crisp breads.
- Dahl (½ cup) with one slice of toasted whole grain bread, ½ toasted pita or whole grain crisp breads.
- One slice of roasted meat with gravy, one new potato, or one third of a small sweet potato roasted and one small portion of vegetables.
- Stir-fried vegetables (½ cup) with noodles (½ cup) plus minced beef.

The above measures are based on an average tea cup. Please note these are only meal suggestions, this in no way means that you should aim to eat the full amount. Listen to your stomach and stop when full. Some people can easily manage more whilst others cannot. It is good practice to always measure your meal portions to get things right every time because just a slight overfilling of the stomach can lead to great discomfort. A 200g yoghurt pot is a handy guide.

Pregnancy

Pregnancies should always be planned. After weight loss your fertility may increase considerably, for this reason you may need to take appropriate precautions. It is generally advised to avoid falling pregnant in the first 12 months after weight loss surgery. If you are planning a pregnancy or discover you are pregnant you may need extra iron and

folate. On the other hand too much Vitamin A is toxic and may be harmful to your baby so you may need to stop the vitamins and minerals or change the formula. Please talk to your bariatric Doctor, Dietitian, GP or Midwife.

Long term Supplements:

Gastric band surgery can have a profound effect on nutritional status. The gastric band can limit your nutrient intake in the long term especially if your diet is not as good as it could be. That is why it is important to eat well and take vitamin and mineral supplements and particularly so in the first year. After this it is recommended to have your bloods checked annually to screen for potential nutrient deficiencies.

Gastric Band

One of the following per day for first year

- A complete multi vitamin and mineral
 - Sanatogen Gold A to Z
 - Forceval (adult)
 - Centrum 100% complete

Keep in mind that vitamin supplements do not contain protein or energy. If you are feeling tired and lethargic the cause is most likely because you are just not eating enough rather than a lack of vitamins. It is important you eat well and at regular intervals each day to keep energy levels up. Don't fall into the habit of missing meals.

Continue as you set out, eat well, take your supplements and get plenty of exercise if possible. Remember the surgery gives you the opportunity to make permanent diet and lifestyle changes for good health and lasting weight loss.

Further Information

Useful resources



Information on healthy eating and weight loss can be found at:



Information on diet and activity for all ages and abilities can be found at:



Our contact details

Bariatric coordinator: **020 8725 5579**
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