

## Patient Information

# Bariatric Surgery

Dietary information for patients following sleeve gastrectomy or gastric bypass surgery



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# Introduction

This information is for patients who have had the sleeve gastrectomy or gastric bypass surgery.

After both types of surgery you will need to follow a special diet for about six weeks before you return to a normal textured diet. 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**

Your first sips of water will be taken the morning after surgery, if you tolerate this well you will then start stage one of the bariatric diet at lunchtime. The bariatric clinical nurse specialist, ward nurse 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 with each food texture stage for two weeks unless advised otherwise by your doctor 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.

Most tolerance problems typically arise from:

- Eating too quickly
- Simply eating too much: or too large a mouthful in one go
- 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

## Stage One

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

This stage of the diet allows your stomach to rest and recover from the surgery. Keep in mind that the surgery has reduced your stomach size. It is now much smaller than before surgery; it is roughly the size of an egg cup. Go slowly, don't over do it. The smooth liquid stage of the diet helps preserve and protects the new stomach structure whilst it heals.

## Stage Two

**Pureed Food. Smooth consistent textures with no lumps. Weeks three and four.**

Remember your stomach is still healing. This stage continues the gentle process of reintroducing normal food textures. You can progress to the next stage at the start of week five.

## Stage Three

**Soft, Moist Foods. Lumps now allowed. Weeks five and six.**

At this stage you can introduce soft moist textures to your diet. 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. You should eat slowly and **stop eating** as soon as you feel full. The healing process continues. Simply eating too much or too quickly may cause pain and vomiting. This can aggravate your surgical wound. 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

**Solid foods, a normal textured, varied and healthy diet. Week seven onward.**

By now you should be able to tolerate a variety of food textures. Do keep in mind that your stomach may still be sensitive so continue carefully. At some point you may experience setbacks. 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.

Now is the time to establish and reset healthy eating practices. Try to move away from the factors that led to weight gain in the first place. Self monitoring is the key to long term weight loss. This takes planning and focus, but with practice will become second nature.

Good nutrition is important after weight loss surgery. Aim to ensure your diet contains sufficient protein, energy, vitamins and minerals for optimum health. A healthy balanced diet includes a variety of foods from the five food groups. After weight loss surgery you will find your appetite may be considerably reduced, however you should aim to eat a breakfast, lunch and dinner daily. See stage four of this resource for more information on healthy eating.

## More information

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

## Supplements

Weight loss surgery may make it necessary to take a range of vitamin and mineral supplements. Which ones will depend on the type of surgery you have had. Typically you can start the supplements in tablet form after week six of your operation. If you wish you can start earlier with a liquid or chewable supplement for example:

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

## Other medications

All other medications, unless in the form of a tiny tablet should be taken in liquid, dissolvable form or crushed until after week six. 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 softer on the stomach. 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.

## Why is this information important?

The texture progression from liquid to solids is important to reduce discomfort or unpleasant side effects such as vomiting or regurgitation. Without adequate attention to eating well the weight loss surgery may make it 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 health problems or even weight regain. **It is very common to experience hair loss in the first six months after surgery. This is often due to the stress of rapid weight loss or poor nutritional status over the longer term. Your hair will return to normal in time with a healthy diet.**

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 the sleeve gastrectomy or gastric bypass surgery.**

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

With each stage of the diet you should follow the guideline for two weeks.

## 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 drink should be thin enough to pass through a straw. After weight loss surgery your appetite will be greatly reduced and you will only be able to manage small amounts at any one time. For this reason it may become 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. Adding a little milk will improve the protein content. If in doubt of the texture use a blender or sieve.
- **Build Up** high protein powdered soups from Nestle. These can be found in most supermarkets.
- **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 or fat free natural or fruit yoghurts are best. Do avoid the ones with added crunchy toppings.

### Fluids for hydration: drinks included 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?

- Keep in mind you now have a tiny 'new' stomach that is currently healing.
- Avoid drinking too much shortly before a meal. These drinks may fill you up and reduce your capacity for the protein rich choices.
- Your total fluid aim is 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 only 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 suitable container of fluid with you. Remember to take small and frequent sips.

**Please note the amounts suggested are a guide. If you have had a sleeve gastrectomy you may find it particularly difficult. Everyone is different. The key thing is to try little and often and take it at your own pace. If problems persist please call us on 020 8725 1022.**

## 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.
- Any liquid with bits or lumps. This will be too complex at this stage and irritate the healing stomach.
- Fluids with **excess sugar and fats** may make you feel sick or cause excessive bowel motions. Keep in mind that in the long term it is advised to avoid sugar containing drinks.

Common complaints	Common causes
<ul style="list-style-type: none"> <li>• Pain or discomfort</li> </ul>	<ul style="list-style-type: none"> <li>• Drinking too quickly or too much at one time</li> </ul>
<ul style="list-style-type: none"> <li>• Vomiting</li> </ul>	<ul style="list-style-type: none"> <li>• Rich fluids – too much sugar or fats</li> </ul>
<ul style="list-style-type: none"> <li>• Diarrhoea</li> </ul>	<ul style="list-style-type: none"> <li>• Rich fluids – too much sugar or fats</li> </ul>
<ul style="list-style-type: none"> <li>• Constipation</li> </ul>	<ul style="list-style-type: none"> <li>• Constipation can be caused by not getting enough fluids during the day                             <ul style="list-style-type: none"> <li>• Reduced food intake</li> <li>• Symptoms of dehydration include hard stools, feelings of nausea, fullness or loss of appetite.</li> </ul> </li> </ul>

Make sure you drink enough fluids in between meals. You can take stool softeners such as Senakot or Fybogel. Avoid LAXATIVES such as Lactulose as these will not be tolerated well by those having undergone the gastric bypass.

## 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 the sleeve gastrectomy or gastric bypass 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. Your stomach is still healing and your tolerance may vary from day to day.

### 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

A varied 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 group include:

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

### Foods to avoid

- All solid foods
- 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 meats separately to vegetables, this helps the meal look more appealing.
- 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

It is common to experience unsettling discomfort shortly after surgery, keep in mind the following tips:

- 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.
- Try to eat without distractions such as the TV.
- With patience and trial and error you will soon find how to eat without undue discomfort or pain.
- 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. Use a ladle or an empty yoghurt pot (200g) as a guide each time you eat.**

## 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 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 above.
- ½ the meal portion should be a protein food.
- The remaining ½ portion a carbohydrate and vegetable option.

### Suggestions

- Chicken casserole blended with runny smooth mashed potato and vegetables.
- Pork and apple sauce purees well – accompany with a small portion of mash.
- 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/Evening

- 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 the sleeve gastrectomy or gastric bypass 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. Your stomach is still healing.

## 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 cereal with milk. Soft food is not dry or crumbly like biscuits or pastry. Soft food does not have a skin like found in orange segments, peas or sweetcorn. This diet stage introduces foods with a firmer texture than puree. You should not require a knife to eat soft textured foods, you should be able to eat 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.

Don't skip meals – even if you don't feel hungry. The surgery interrupts your appetite; however your body still needs food. You risk slowing your metabolism and stalling your weight loss by missing meals. People often complain of feeling flat, tired and lethargic. This is often the result of eating fewer than the expected three small meals daily.

### Suitable foods are

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

### 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 will make you feel bloated and uncomfortable. Alcohol can 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

It is common to experience unsettling discomfort shortly after surgery. As you progress through this stage and onwards you are quite likely to encounter tolerance problems. This can be very distressing for some. Remember your stomach is still healing. You must be patient to re-learn a new way of eating. Keep in mind the following tips:

- Always measure your meal portion. A 200g empty yoghurt pot is a good guide, you could also use a small kitchen ladle. This will help you to understand exactly what your limits are. This is good practice to reduce the chance of overfilling your stomach that can lead to pain and vomiting.
- At this stage you may notice a slight increase in how much you can manage. Do be careful, eat slowly and stop as soon as you feel full.
- Avoid distractions with the meal and focus on the signals your stomach is giving you. There is a fine line between being comfortably satisfied and over doing it. This can be as little as a single teaspoon! Overfilling will cause pain and may lead to vomiting.
- Take small mouthfuls – eating with a small fork or teaspoon may be helpful. Sit up during meals and for half an hour after to avoid heartburn.
- Slow down. Your stomach is still healing and does not like being stretched. A good guide is the rule of 20's:
  - 20 mouthfuls,
  - Chewed 20 times
  - In 20 minutes. The meal should last no more than 20 minutes
- It is important not to eat and drink at the same time. Fluids can dilute the food in your stomach and allow it to pass through too quickly. This is a common cause of discomfort in the gastric bypass group. A good guide is to wait for 20 to 30 minutes after eating.



**It is not normal to regurgitate or vomit food on a frequent basis. If you are caught in this cycle, you may need to return to stage one of the diet for a day or so. This will help your stomach settle. When things improve you can then progress slowly and with caution. If things don't settle please contact the dietitians.**

## 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 ½ a slice of soft white or brown bread (crust removed). Please note that not everyone can tolerate bread at this stage.

### 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 or a slice of soft white bread (no crust). 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.

### 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 sleeve gastrectomy or gastric bypass surgery.**

## When can I start Stage Four?

By now your stomach should have healed sufficiently to tolerate a variety of foods; however some people will experience pain and discomfort with certain foods and textures. You should only progress to this stage if you have successfully taken food from **Stage three** for **at least** ten days.

Difficulty with eating may continue for some time, up to six months is not uncommon. By going back to stage one, two or three for a day or so you may find things improve. **Please note that if you have persistent troubles then contact a member or the bariatric team:**

- Dietitians: **0208 725 1022**
- Specialist Bariatric Nurse: **0208 725 4238**

## What is Stage Four?

Stage four represents a return to normal, varied food textures; it is **not** a special diet but is a guideline for basic healthy eating principles. Overleaf 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 types and proportions of foods needed for a healthy and well balanced diet.

The eatwell plate applies to most people – whether they're a healthy weight or overweight, whether

they eat meat or are vegetarian, and no matter what their ethnic origin. However, it doesn't apply to children under the age of two because they have different nutritional needs. The principles of healthy eating will help you get the best from your weight loss surgery. You may already be aware of the principles of healthy eating but have struggled to follow this in the past. Weight loss surgery provides a vital opportunity to get things back on track.

## 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 for good and there is always a risk that you may regain weight. Lasting results take commitment and hard work. Some doctors working in Bariatric surgery say that up to half of their patients regain considerable amounts of weight over the years.

To avoid this you need to be very clear on what led to your weight gain as well as the factors that made it difficult for you to keep it off. You must avoid falling back into the habits or situations that led to your weight gain.

Soon after weight loss surgery things will be different; the surgery alters your appetite and your capacity to eat. Over time these effects will diminish as the body adjusts to the surgery. This is where 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 going wrong or where improvements are needed. With that knowledge you can then make a plan, put it into action and monitor your progress, for lasting success. Practice makes perfect as they say, and to sustain changes in habits, you need to keep practising.

### Why is balanced eating so important?

Eating well is important after weight loss 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 weight loss surgery, however do keep trying as things do improve in time. By eating sufficient protein you will retain important muscle tissue and maintain a good 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 into 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.

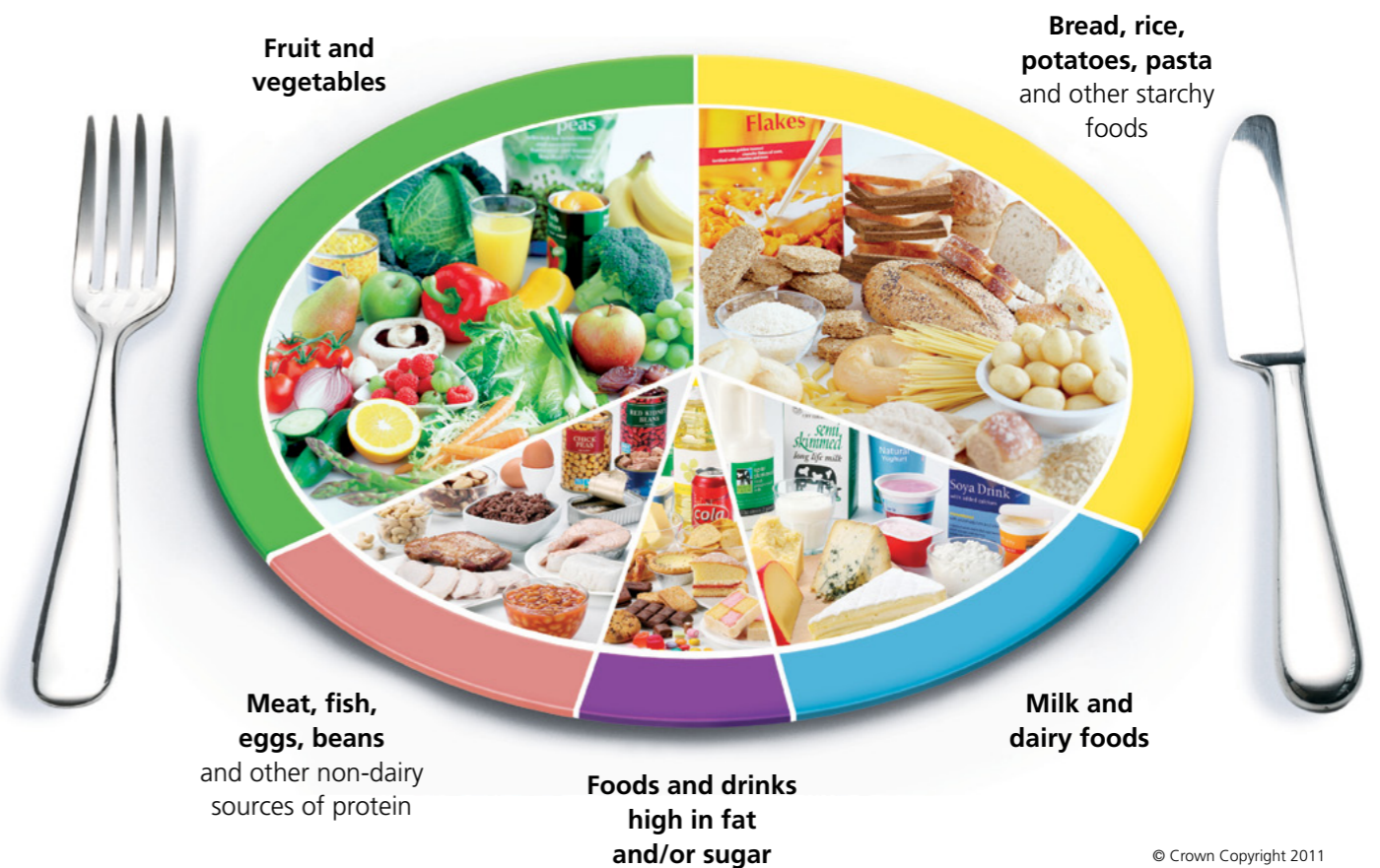
### Being nutritious

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. In the first few months you may find that eggs stick in your chest. This is common, just make sure you cut small and chew well. Scramble eggs slowly, stop cooking just as they set. If cooked too long they will become quite tough and lead to the '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 are 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. 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!

## 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 spreads.

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. **Do not have more than 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, ¼ 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 and dilute with water

### 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 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 bolognese 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 be able to eat the full amount. Some people can easily manage 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**

Weight loss surgery can have a profound implication on nutritional status. The gastric bypass is well known to impair absorption of iron and calcium, however the sleeve gastrectomy may also have a similar effect. If you follow a poor diet after weight loss surgery your risk is greatly increased. That is why it is important to eat well and take vitamin and mineral supplements.

The following outlines the recommended supplement plans:

<b>Gastric Bypass Two each of the following per day for life</b>	<b>Sleeve Gastrectomy and Gastric Band One of the following per day for first year</b>
<ul style="list-style-type: none"> <li>• A complete multi vitamin and mineral                             <ul style="list-style-type: none"> <li>• Sanatogen Gold A to Z</li> <li>• Forceval (adult)</li> <li>• Centrum 100% complete</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• A complete multi vitamin and mineral                             <ul style="list-style-type: none"> <li>• Sanatogen Gold A to Z</li> <li>• Forceval (adult)</li> <li>• Centrum 100% complete</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Calcium &amp; Vitamin D                             <ul style="list-style-type: none"> <li>• AdcalD3</li> <li>• Calcichew D3</li> </ul> </li> </ul>	
<ul style="list-style-type: none"> <li>• Iron &amp; Folate                             <ul style="list-style-type: none"> <li>• Pregaday</li> <li>• Pregnacare</li> <li>• Ferrograd Folic</li> </ul> </li> </ul>	

**Do not take iron and calcium supplements together** as they compete for absorption. Take them at opposite ends of the day. Do not take your supplements with tea as this can also hinder absorption, they are best had with water or diluted juice.

Keep in mind that supplements do not contain protein or energy. If you are feeling tired and lethargic the cause is most likely your diet rather than a lack of vitamins. It is important you eat enough 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 a healthier future.

## Further Information

### Bariatric forums

Some people find discussion with others quite helpful for peace of mind in making the decision to undergo weight loss surgery. The following links will direct you to two UK based bariatric forums. On these forums you will find a mix of both accurate and misleading information shared between bariatric patients and those considering weight loss surgery.

The opinions expressed here are not those of the authors or St George's Healthcare NHS Trust. If you have any doubts feel free to discuss things with a member of your bariatric team to clarify matters.

[www.buddypower.net](http://www.buddypower.net)  
[www.wlsinfo.org.uk](http://www.wlsinfo.org.uk)

### Our contact details

Bariatric coordinator: **020 8725 5579**  
Dietitians: **020 8725 1022**  
Nurses: **020 8725 4238**

### Further reading

**Cut down to size: achieving success with weight loss surgery** by Jenny Radcliffe  
ISBN: 978-0-415-68377-7

### Useful resources



[www.bospa.org](http://www.bospa.org)



[www.wlsinfo.org.uk](http://www.wlsinfo.org.uk)

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



[www.eatwell.gov.uk](http://www.eatwell.gov.uk)



[www.bhf.org.uk](http://www.bhf.org.uk)

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



[www.nhs.uk/change4life](http://www.nhs.uk/change4life)



[www.bariatriccookery.com](http://www.bariatriccookery.com)



Produced October 2012  
Review April 2016

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