

Bariatric Patient Information

Information for patients

Post-operative diet

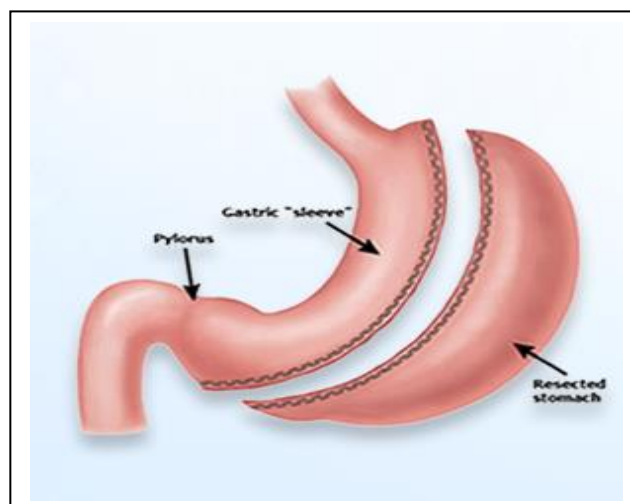
This information is for patients who have had the sleeve gastrectomy or gastric bypass surgery.

Sleeve gastrectomy

The sleeve gastrectomy is a weight loss surgery. The outside part of the stomach is removed which leaves a much smaller stomach pouch. It reduces the size of the stomach by 75%-80%.

The aim of the surgery is to dramatically reduce the amount of food you can eat. The operation will also reduce the hunger hormone ghrelin meaning you may not want to eat as much as you used to. Although the stomach is smaller however your digestion is unaltered.

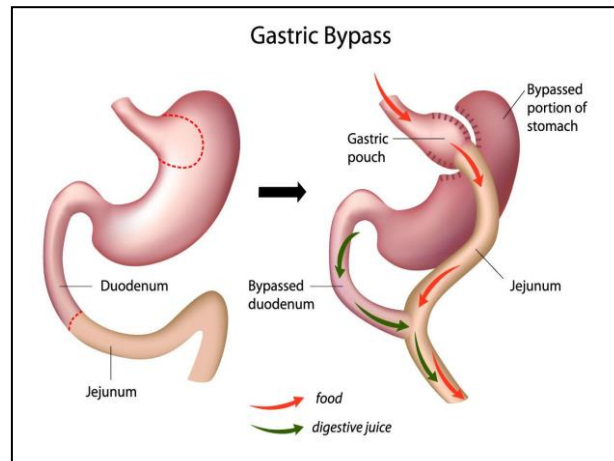
This surgery is a tool to help you to lose weight however you will still need to make appropriate diet and lifestyle choices.



Roux-en-Y gastric bypass

During the gastric bypass surgery, the surgeons use metal staples to divide the top section of the stomach to create a small pouch. This pouch is then connected directly to the small intestine. Food will pass from the top section of the stomach directly to the small intestine bypassing the remaining stomach and duodenum. This is creating a combined restrictive and malabsorptive procedure.

The main effect of this surgery will mean food can only be taken in very small quantities because the stomach pouch is so small. Food will remain in the pouch for longer, making you feel full for longer. The bypass reduces the amount of calories you absorb but may also reduce the amount of protein, vitamins and minerals you absorb.



After your surgery you will need to go through several stages slowly progressing from fluids to solid foods. This is to avoid putting pressure on your wounds as they heal. You will need to follow a modified texture diet for 6 weeks before you can return to a normal diet. The texture progression phases are important to reduce discomfort and unpleasant side effects such as vomiting and regurgitation or pain. It will also help you adjust to your new, smaller stomach. With each stage of the diet you should follow the guidance for two weeks.

The diet is set out over four stages:

1. **Fluids**
2. **Pureed food**
3. **Soft Moist food**
4. **Normal varied healthy diet**

Stage One: Smooth Liquids

The day after your surgery the surgical team will tell you when it is safe to start to begin to sip water. If you tolerate this well you will then start stage one of the bariatric diet. You should continue with each food texture for two weeks and progress the next stage if you are tolerating this well and experiencing no difficulties.

The aim of each stage is to eat well whilst minimising the risk of side effects whilst your stomach heals.

Stage One – Smooth liquids (day 1-14)

This stage of the diet allows your stomach to rest and heal from the surgery. It is important to go slowly and adjust to your smaller stomach size. After weight loss surgery appetite will also be

significantly reduced and it can be a challenge to get enough protein and fluid therefore it is important to prioritize liquids that are high in protein before other fluids.

All liquids should be completely smooth with no lumps or 'bits'. Start with small frequent sips and gradually increase the quantity until the sensation of feeling full occurs. It is important to stop as soon as you feel full to prevent pain, nausea or vomiting. The liquids you drink should be thin enough to pass through a straw.

Fluids need to be taken slowly so that you can develop a sensitivity to how quickly they pass into the stomach area and fill the smaller space recognizing when you feel full.

Protein rich liquids:

Aim for 1 pint or 570 ml per day of protein rich liquids

- Skimmed or semi-skimmed milk 19 g protein
- Soups containing meats, bean or pulses. Blitz these until smooth, adding additional milk to achieve the correct consistency also increases the protein content. If in doubt pass through a sieve
- Complan soup 8.7 g Protein
- Complan drinks made up with 200 ml skimmed or semi-skimmed milk 16 g protein
- Slimfast ready-made drinks 15 g protein
- Slimfast powder made up with 250 ml skimmed or semi skimmed milk 14 g protein
- Meritene soup made with 150 ml water 7 g protein
- Build Up high protein soups
- Low fat or fat free natural or fruit yogurts
- Ovaltine or Horlicks made with skimmed milk
- Protein water 15 g protein in 250 ml
- V24 Protein shots 24 g protein per serve

TIP – Use high protein milk (40 g protein per 200 ml serving)

You can use this in all drinks such as soups, tea, coffee, and complan.

Make at home High Protein Milk:

Ingredients

4 tbsp or 60 g Skimmed milk powder
1 pint of skimmed milk

Method

Mix milk powder with 50 ml of the milk to form a paste. Stir in the remainder of the milk and use throughout the day

Liquids for hydration:

- Water
 - Tea or coffee with milk. Use sweetener if required, not sugar
 - Stock cube, marmite or Bovril in hot water
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- No added sugar/sugar free squash
 - Herbal or fruit teas
 - Diluted vegetable juice

Liquids to avoid:

- Carbonated drinks and sparkling water as the gases can make you bloated and uncomfortable
- Alcohol as this is an irritant to the stomach
- Any liquids with bits or lumps
- Fluids with excess sugar or fats which can make you nauseous or cause excessive bowel motions. You are advised to avoid drinks which contain sugar in the long term

Sample meal plan: Phase 1 Liquid diet

Breakfast:	High Protein shake
Snack:	200 ml high protein milk
Lunch:	Homemade soup
Snack:	Slimfast/Complan
Evening meal:	High Protein shake

How much and when?

Remember that you now have a much smaller stomach which is still in the process of healing therefore go slowly. Your total fluid aim is six to eight cups per day this is the equivalent of two litres per day which includes protein rich liquids and liquids for hydration.

- Aim for 100 – 200 ml each hour
- Avoid drinking liquids for hydration before protein rich liquid meals. This will prevent you feeling full up which would limit your capacity for nutritious liquid meals
- Stop drinking as soon as you feel full to prevent stress and discomfort to the stomach

Vitamins

After weight loss surgery it is necessary to take a range of vitamin and mineral supplements. Typically, you would start to take these in tablet form from week six after surgery. If you wish to start this earlier a liquid formulation should be taken.

Medications

It is necessary to take any medications you are prescribed in either liquid or dissolvable form or crushed until week six after your operation. Your ward pharmacist can advise during your inpatient stay. You will need to liaise with your GP for ongoing medications until you can safely reintroduce tablet formations.

Common Problems and Causes in Stage one

- **Pain and discomfort** are frequently caused by drinking too quickly or too much at one time
- **Vomiting and diarrhoea** are often caused by drinking rich fluids too high in sugar or fat
- **Constipation** can be caused by not getting enough fluid throughout the day or reduced intake of liquid foods
- These symptoms can also be experienced by moving to the next phase too quickly

Stage Two: Pureed diet (day 14-28)

You should expect to stay on this stage for two weeks. All food at this stage should be pureed but still without lumps. It is important to complete this stage as your stomach pouch will be very small and tight. Pureed foods are smooth and will pass through your stomach more easily. Suitable foods have a consistency of yogurt. You will need to puree your meal using a blender, liquidiser or food processor.

The aim as with all stages is to ensure you are getting all the nutrients you need. You should include a protein, carbohydrate and vegetable portion at each meal. Half your meal portion should be from a protein rich food.

Foods to have:

Protein	Carbohydrates	Fruits and vegetables
<ul style="list-style-type: none">• Pureed chicken, lamb, beef, turkey, ham, Quorn, soy mince with a gravy or sauce• Fish pureed with a sauce• Dahl/ lentils/pulses• Baked beans• Hummus• Low fat cream cheese• Low fat/fat free yogurt or fromage frais	<ul style="list-style-type: none">• Smooth runny mashed potato or sweet potato• Creamed rice (smooth)• Porridge• Ready-brek• Pureed pasta• Weetabix with extra milk	<ul style="list-style-type: none">• Any pureed vegetable without skin or pith such as cauliflower, carrots, aubergine, parsnips, broccoli (fresh frozen or tinned)• Fruit such as banana or stewed fruits such as apple or pear

Foods to Avoid:

- All solid foods
- Tough skin on foods such as tomatoes or dried fruits
- Bacon meats with gristle
- Skin on meat, chicken or fish
- Sweetcorn and broad beans
- Tomato seeds
- Bread, toast, rusks, seeds and nuts

Liquids for hydration:

- Continue to keep up fluid intake between meals (aim for 1.5-2 L throughout the day)
- Tea or coffee with milk. Use sweetener if required, not sugar
- Stock cube, marmite or Bovril in hot water
- 'No added sugar'/sugar free squash
- Herbal or fruit teas
- Diluted vegetable juice
- Avoid carbonated drinks and sparkling water
- Avoid alcohol

Sample meal plan: Phase 2 pureed diet

Breakfast:	Readybrek or Weetabix with high protein milk
Snack:	Low fat, high protein yoghurt (1/2 pot) or 3 tablespoons fruit puree
Lunch:	Pureed fish/meat or vegetable in sauce or pureed baked beans or pureed scrambled egg
Snack:	High protein shake or milk
Evening meal:	Pureed chicken casserole or meat stew or pureed lentil dhal

How much and when?

It is common to experience some discomfort after surgery. The following tips can help:

- Eat 3 small meals and 2-3 snacks throughout the day. Start with 2-3 teaspoons and build up slowly
 - Eat food very slowly aim for 20 minutes to complete a meal
 - Sit upright in a chair if possible
 - Consume foods and fluids separately – wait 30 minutes after eating before having fluids for hydration
 - If your appetite is poor, concentrate on the protein containing part of the meal first
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- You should still chew your food even though it is pureed
 - Measure your meals, use a ladle or empty yogurt pot to guide your portion size
 - If you do experience difficulties after introducing pureed diet you may need return to the previous texture and until things improve and then try again in smaller portions
 - It is not normal to regurgitate or vomit food on a frequent basis. If this is happening you may need to return to phase one of the diet until your symptoms settle then progress slowly
 - You should follow the national guidelines for a healthy diet

Sample Menu

Breakfast:	Porridge or Weetabix with skimmed milk
Snack:	200 ml glass skimmed milk or high protein yoghurt
Lunch:	Omelette with low fat cheese and salad
Snack:	High Protein Shake
Evening meal:	Chicken or meat casserole with vegetables

Stage 3: Soft textured foods (Day 28-42)

You should expect to remain on this stage for two weeks whilst your stomach continues to heal. All food at this stage should have a soft consistency, be well cooked and could be easily mashed by a fork. You should not require a knife to eat soft foods.

Your meals should continue to be balanced and contain protein, carbohydrate and vegetables. Aim to have three small meals per day and one to two of the suggested protein rich snacks if you feel hungry between meals. It is important not to skip meals.

Foods to have

Protein	Carbohydrate	Vegetables/fruit
<ul style="list-style-type: none">• Minced chicken, lamb, beef, ham, Quorn, Soy• Flaked fish with a sauce• Dhal• Beans and pulses crushed with a fork• Cream cheese• Cottage cheese• Scrambled egg• Low fat/fat free yoghurt/fromage frais	<ul style="list-style-type: none">• Mashed potato or sweet potato• Creamed rice• Porridge• Weetabix• Ready-brek• Soft well-cooked pasta• Soft well-cooked rice• Cous-cous, polenta	<ul style="list-style-type: none">• Soft peeled fruit, stewed or canned can also be used• Cooked until soft e.g. carrots, parsnips, broccoli, aubergine, spinach

Foods to Avoid:

- Fibrous vegetables such as celery, sweetcorn, peas or asparagus
- Any food with a tough skin such as tomato, potato skin
- Foods with seeds and pips
- Sausages

Liquids for hydration:

- Continue to keep up fluid intake between meals (aim for 1.5-2 L throughout the day) to avoid constipation
- Tea or coffee with milk. Use sweetener if required, not sugar
- Stock cube, marmite or Bovril in hot water
- No added sugar/sugar free squash
- Herbal or fruit teas
- Diluted vegetable juice
- Avoid carbonated drinks and sparkling water
- Avoid alcohol

When and how much?

Eat three meals per day, if you feel hungry then have a protein rich snack. The main focus for your meals and snacks is protein. Half of your plate should be made up with protein rich foods. Start with 3-4 teaspoons and stop eating at the first sign of fullness. As little as one extra teaspoon can cause you to overfill which may cause pain or vomiting. It is not uncommon as you pass through this stage to encounter tolerance problems. It is important to remain patient and remember your stomach is still healing.

- Measure your meal portion. A small empty yoghurt pot or small ladle is a good guide
 - Fill half your plate with protein rich foods
 - Eat slowly and stop as soon as you feel full
 - Follow the rule of 20
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- 20 mouthfuls
 - Chewed 20 times
 - 20 minutes meal time
- Continue to consume food and fluids separately. Aim to leave 20-30 minutes after eating
 - It is not normal to regurgitate or vomit food on a frequent basis. If this is happening you may need to return to phase one of the diet until your symptoms settle then progress slowly

Sample meal plan

At this stage you should aim to balance your meal with half of the meal being the protein, a quarter vegetable and lastly carbohydrates. Choose a breakfast, lunch and one to two snacks

Breakfast ideas:

- Porridge, Oatbix or Weetabix with skimmed milk
- Soft cooked eggs
- Mashed baked beans

Lunch and dinner ideas:

- Minced quorn or soya mince with pasta and vegetables
- Cauliflower cheese (low fat cheese)
- Thick soups with lentils, ham or other protein and potato
- Tinned or soft flaky fish with mashed potato and vegetables
- Chicken or meal casserole with vegetables
- Omelette with low fat cheese

Snack ideas

- Low fat, high protein yoghurts ½ pot
- Soft fruit (portion controlled)
- Protein shake ½ portion
- Sugar free jelly

Regular diet

By this stage your stomach should have healed sufficiently to tolerate a variety of different foods and textures. This stage represents a return to normal foods. You should continue to eat three regular meals throughout the day. Eating well after weight loss surgery is important to ensure your diet has sufficient vitamins, minerals and proteins for health and vitality.

The key points to help you maximise the benefits of your weight loss surgery.

1. Eat three meals per day. Your smaller stomach size and reduction in hunger hormones should mean you are satisfied eating 3 meals a day. You should avoid skipping meals even if you are not hungry.
 2. Eat slowly, chew carefully and stop as soon as you feel full.
 - Take small bites
 - Chew each bite 20 time
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- Wait one minute between mouthfuls
 - Eat at a table without distractions
3. Protein, vegetables, carbohydrates. This is the order in which you should eat from your plate. Protein is the most important component of your meal so eat this first in case you become full.
 4. Eat a healthy balanced diet. Choose lean meat or fish with vegetables as these will remain in your stomach for longer and are more satisfying.
 5. Portions. Your plate should be 'side' plate sized. Half the plate should contain protein rich sources.
 6. Do not graze. Stick to regular eating pattern.
 7. Avoid eating and drinking at the same time. There is not enough room in your smaller stomach for food and drink. Aim to leave 20-30 minutes before a meal and 20-30 afterward before having fluids.
 8. Choose low calorie drinks (non- carbonated) Liquids pass through the stomach quickly, high calorie drinks include alcohol, fruit juices, smoothies, sugar containing squash, sports drinks, milkshakes. Milk is a good source of calcium and protein and low- fat milk in reasonable quantities is acceptable. Avoid all carbonated drinks, the gases can create pressure in the stomach and possibly lead to the stomach stretching.

Vitamins and minerals

After having weight loss surgery, it is unlikely that you will be able to get all the vitamins and mineral that your body requires. It is difficult to eat enough of these nutrients with your smaller stomach and it is harder for your body to absorb. You will need to take a multivitamin and mineral supplement, every day. This is a lifelong requirement and essential for good health and should be taken from week 6. If taken in liquid or chewable form, you may wish to start earlier.

Multivitamin and mineral – choose from

- Forceval one capsule per day (this is available on prescription in certain circumstances)
Dose: One capsule per day
- Over the counter supplement such as Sanatogen A-Z, Centrum A-Z (also available in supermarket own brand such as Tesco A-Z, Lloyds A-Z)

Calcium and additional Vitamin D

- AdCal D3 or Desunin
Dose: Two tablets each day

Iron

- Ferrous Fumerate 200 mg
Dose: One tablet each day or two for menstruating women

Vitamin B12

- Three monthly injection
Dose: three monthly injection (1mg) or one tablet each day (1mg). This should be arranged via your GP
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You will need to continue to have regular bloods tests to monitor for any nutritional deficiencies. These blood tests will be made for you at your follow up appointments in the first two years after your surgery. Monitoring beyond 2 years should be arranged annually with your GP.

Post-Operative Complications

Hair loss

During the first 6-9 months you will likely experience rapid weight loss. It is not uncommon for some hair loss to occur. By continuing to eat a healthy and balanced diet and taking your vitamin and mineral supplements this will allow your hair to return to normal in the longer term.

Dumping Syndrome

Dumping syndrome is a common side effect after weight loss surgery. Up to 75% of people who have had a gastric bypass surgery will experience dumping syndrome. This condition occurs if you eat or drink too much sugar, if you eat and drink food together or if you consume large quantities of food.

This can happen during or immediately after a meal within 10-30 minutes of eating or later 1-3 hours after eating. Symptoms include nausea, vomiting, diarrhoea, cramping dizziness, fatigue, fainting and increased heart rate.

Tips to avoid dumping syndrome:

- Avoid sugary foods and drinks, this includes undilute fruit juices
- Avoid eating and drinking fluids for hydration at the same time
- Eat smaller portions and ensure you are chewing your food
- Dumping syndrome can also be experienced when having foods which are high in fat and alcohol

Constipation

The most common cause for constipation is insufficient fluid intake.

Tips to avoid constipation:

- Increase your overall fluid intake
- Ensure you are eating enough high fibre foods such as fruits, vegetables, pulses and wholegrain cereals
- It is important to keep active and mobile to improve bowel function
- It may help to add a laxative if your constipation does not improve with these modifications

Nausea, vomiting and indigestion

Tips to avoid nausea, vomiting and indigestion

- Ensure you are not eating too quickly – remember the rule of 20!
 - Chew all food thoroughly
 - Avoid eating and drinking at the same time
 - Do not lie down too soon after eating or drinking
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Useful Information

- British Obesity Surgery Patients Association www.bospa.org
- British Obesity and Metabolic Surgery Society www.bomss.org.uk
- NHS Choices www.nhs.uk/Livewell/
- British Dietetic Association www.bda.uk.com/foodfacts/home
- Baritastic – app which allow you to track intake, fluid, physical activity. Includes recipes

Please use this space for your notes



Further information and advice can be obtained from:

NHS 111
NHS Choices online

 **111**
www.nhs.uk

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Telephone:  01622 224960 or  01892 632953

Email: mtw-tr.palsoffice@nhs.net

or visit their office at either Maidstone or Tunbridge Wells Hospital between 9.00am and 5.00pm, Monday to Friday.

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