

Bariatric Service - Patient Information Sheet

Shrewsbury and Telford Hospital NHS Trust

INTRODUCTION

Welcome to the Bariatric Service at the Royal Shrewsbury and Princess Royal Hospitals. Bariatric (weight loss) surgery has proven to produce a substantial amount of weight loss, which can be vital in achieving life-long weight management, reduce the risk of serious health complications and improve quality of life.

Weight loss surgery is a commitment for life. A sustained level of motivation, a combination of healthy eating and long term lifestyle changes are necessary to achieve success.

This information aims to give an insight into Bariatric surgery right from the initial decision to have surgery, to advise on your new life afterwards.

THE BARIATRIC MULTIDISCIPLINARY TEAM

Mr James Rink - Lead Consultant Bariatric Surgeon

Mr Manel Riera - Consultant Bariatric Surgeon

Mr John Loy - Consultant Bariatric Surgeon

Dr Helen Ashby - Consultant Bariatric Physician (Tier 3 Specialist)

Dr Rob Law - Consultant Anaesthetist

Dr Louise Sykes - Consultant Anaesthetist

Dr Hani Shawkat - Consultant Anaesthetist

Dr Chris Mowatt - Consultant Anaesthetist

Mr Sam Adjepong - Associate Specialist Surgeon

Mr Jay Pattar - Associate Specialist Surgeon

Sr Bryony Price - Bariatric Nurse Specialist

Hayley Giang - Bariatric Dietitian

Vivienne Love - Mental Health Dietitian

BENEFITS OF SURGERY

Although temporary weight loss is achievable for many, maintaining weight loss is challenging. Surgery is the most effective method to aid and maintain weight loss long term which is necessary to provide significant health benefits.

Being overweight increases the risk of having many other diseases. Currently 90% of adults with type 2 diabetes are overweight or obese.

Bariatric surgery has been shown to prevent or improve all the following conditions:

- Type 2 diabetes
- Reflux disease
- Joint and back problems
- High cholesterol
- High blood pressure
- Sleep apnoea
- Heart disease
- Asthma
- Infertility
- Stress incontinence
- Depression

Obesity has been linked to numerous cancers, such as breast, colon and uterus.

TYPES OF SURGERY

The main types of Bariatric surgery performed at the Trust are:

- Sleeve gastrectomy
- Laparoscopic Roux en-Y gastric bypass
- Laparoscopic adjustable gastric band
- Intragastric balloon
- Revisional Surgery

PATIENT PATHWAY

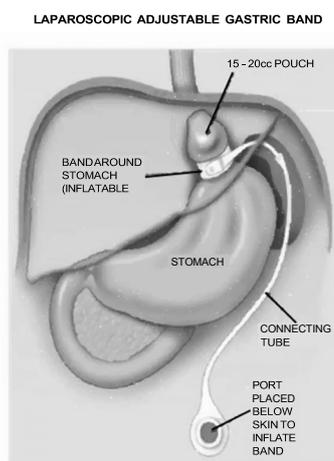
Once you have met one of our Consultants you will be asked to attend two group teaching sessions. These are held at the Princess Royal Hospital and run for about three hours each. We will explain every aspect of the journey including dietary advice, behavior changes and the operations that will help make it all possible.

You will fill in a health and lifestyle form. Thereafter you will meet Vivienne Love, the mental health dietician. You will be able to learn more about your diet and discuss behaviour towards food.

Finally the team will meet you again and discuss your options with you. You will have the opportunity to ask questions, and be involved in the decision process.

SURGICAL PROCEDURES

LAPAROSCOPIC GASTRIC BAND



Gastric banding is carried out by keyhole surgery under general anaesthetic. The operation usually takes around 45 minutes and you will likely go home the same day.

It involves the placement of an adjustable band (made from silicone)

that is placed around the upper part of the stomach. It creates a new smaller stomach pouch, with a small opening that leads to the larger part of the stomach below the band. When you eat you will get a feeling of fullness and, because food is unable to pass quickly into the lower stomach, it slows digestion.

The size of the opening controls the flow rate of food. To change the size of the opening, the inner surface of the band can be inflated with saline via a port that sits on your abdominal wall under the skin. This is called a band adjustment or fill. When first placed the band is empty. Band adjustments will commence at around four to six weeks. Various adjustments will be required, until the band is tight enough to allow steady weight loss, provide a feeling of fullness, whilst allowing adequate amounts of food to pass through the band to meet your baseline nutritional needs.

You must follow a special diet for at least 4 weeks and thereafter adhere to some specific dietary rules that ensure the band works well.

A combination of both healthy eating and exercise will maximise the positive effects of the gastric band.

BENEFITS:

- Maybe done as a day case procedure
- Adjustable and reversible
- The stomach and intestines are not altered so food and medicines are absorbed and digested as normal.
- You are likely to feel satisfied sooner, and stay satisfied for longer.

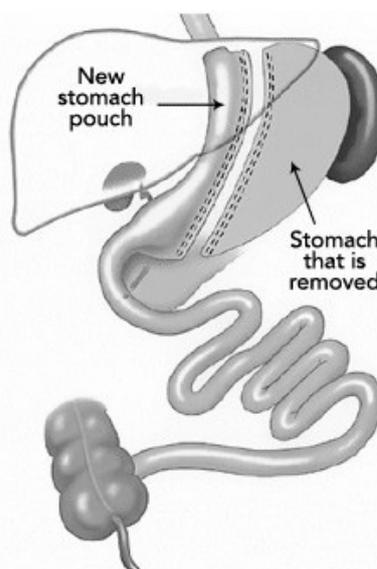
RISKS:

- Mortality less than 0.1%.
- Risks associated with a general anaesthetic and operation – see 'Possible complications'.
- Weight loss will not start until band adjustments start.
- Access port infection.
- Tube leakage, twisting of port, port damage
- Band slippage – 2-5% of cases.
- Band erosion - the band works its way from the outside to the inside of the stomach -1% of cases.
- Stretching of the stomach pouch or oesophagus (food pipe) if you overeat.
- Failure to lose weight and/or weight regain.
- Difficulty getting the correct level of restriction which suits the patient.

If you require any emergency or elective surgery in the future please ensure the surgeon is aware you have a gastric band. It should not need to be adjusted.

LAPAROSCOPIC SLEEVE GASTRECTOMY

The sleeve gastrectomy involves dividing the stomach vertically, thus reducing its volume by



80%. The larger part of the stomach is removed. The gastric sleeve does not involve any surgery in the bowel. After the operation you will need to take vitamins and supplements and attend regular follow up appointments with the team.

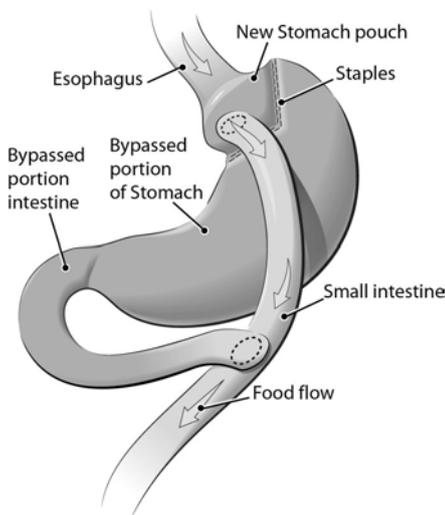
BENEFITS:

- Longstanding maintained weight loss.
- Significant improvement in health and fitness.
- You are likely to feel satisfied sooner, and stay satisfied for longer.
- No need for bowel surgery.
- Weight loss similar to gastric bypass up to five years after surgery.

RISKS AND COMPLICATIONS:

- Mortality less than 0.1%.
- Risks associated with a general anaesthetic and operation - see 'possible complications'.
- Leak and/or bleed from the staple lines.
- Narrowing of the new stomach which can cause problems with eating and drinking.
- Worsening heartburn and reflux.
- Hair loss or thinning in the first six months, this will re-grow.
- Excess skin, very unfortunately this is not routinely funded by the NHS.
- Malnutrition.
- Failure to lose weight in the long term, unless you adhere to long term dietary, exercise and lifestyle changes.

LAPAROSCOPIC ROUX EN-Y BYPASS



The Roux en-Y or gastric bypass is still considered the gold standard operation. It involves surgery in the stomach and the bowel. A small pouch of stomach is created using staplers, and separated from the rest of the

stomach. Then a loop of small bowel measuring 120-150cm is joined to the small stomach pouch. This long loop will be joined to the unused portion of small bowel, where remaining stomach and duodenum are connected. In summary, food travels down the pouch and bypass intestine, joins the unused bowel, which brings bile and pancreatic juices necessary for digestion. Finally they all drain into the common bowel downstream.

BENEFITS:

- Longstanding maintained weight loss.
- This operation has been performed for well over two decades with success.

- Significant improvement in health and fitness.
- 80% of diabetic patients can stop their medication after two years.
- Reduction in the amount that can be eaten.
- You are likely to feel satisfied sooner, and stay satisfied for longer.
- Weight loss starts immediately.

RISKS AND COMPLICATIONS:

- Mortality less than 0.1%.
- Risks associated with general anaesthetic and operation - see 'Possible complications'.
- Leak and or bleed from staple lines at operation sites internally.
- Internal hernia/bowel obstruction.
- Dumping syndrome, after eating sugary or fatty foods, you may feel nausea, vomits, diarrhoea, sweating, faintness and palpitations.
- Late reactive hypoglycaemia (low sugar)
- Vitamin and mineral deficiencies – you will need to take a multivitamin and other supplements for life.
- Malnutrition.
- Risk of inadequate weight loss, or weight regain (patients need to continue to be careful of their diet post-operatively).
- Hair loss (in the acute weight loss phase), this will grow back.
- Excess skin.

INTRAGASTRIC BALLOON

The gastric balloon is a silicone balloon which is fitted in the stomach via the mouth under general anaesthetic. It is

sometimes used to help a patient lose weight to make one of the other operations such as gastric bypass or the sleeve gastrectomy safer. It stays in place for 6 months. On average patients lose 10-20% of their excess weight with the balloon. Unfortunately, patients who take blood thinning drugs, those who have stomach disease such as ulcers or history of bleed and those who had previous stomach surgery cannot have this procedure.



BENEFITS:

- It is an endoscopic procedure, no surgery is involved.
- Helps make further surgery safer by reducing your weight beforehand.

- Reduction in the amount that can be eaten
- Assists in changing eating habits

RISKS AND COMPLICATIONS:

- Nausea and vomits after the procedure. Anti-sickness medication will be given in hospital.
- Balloon rupture within the stomach (it is filled with blue dye so you would know if this had happened because your urine would turn blue/green colour).
- Poor tolerance in up to 20% of patients.
- Worsening heartburn.
- Failure to lose weight.

How much weight can I expect to lose?

You can expect to lose 45-75% of your excess weight in the first 12-18 months depending on which operation you have. Excess weight is deemed as the weight above BMI 25. Most of the weight is lost in the first eighteen months.

So for example a woman that weighs 135kg with a height of 1.65m who has a BMI of 49.6 can expect to lose:

- 60% excess weight= 40.2kg therefore weight would be 94.8kg BMI 34.9.
- 75% excess weight= 50.3kg therefore weight would be 84.8kg BMI 31.2.

BMI at upper limit BMI 25= 68kg therefore excess weight is 67kg.

While every patient may achieve different excess weight loss, it is the positive impact on your health that you will find most beneficial. Finally, it is important to follow the new diet, exercise and lifestyle changes, to achieve success.

Liver shrinkage diet

What is the liver shrinkage diet?

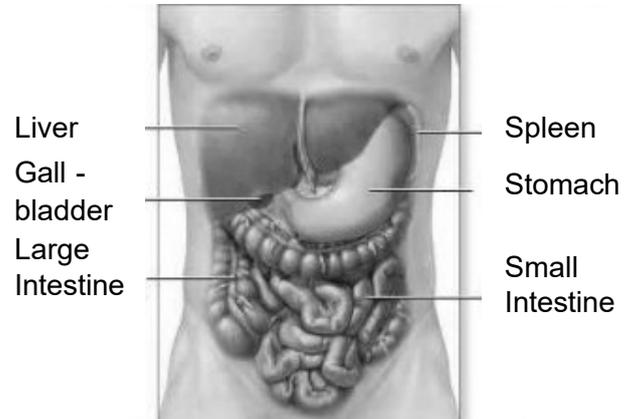
The liver shrinkage diet is a very low calorie diet low in fat, sugar and carbohydrates. We ask that you follow this for 2 weeks prior to your surgery to make the surgery safer. This type of diet helps to shrink the liver by reducing the glycogen stores held within it (glycogen is a form of sugar stored in the liver and muscles for energy).

Why is it important to follow the liver shrinkage diet?

It is important to follow the liver shrinkage diet to make the surgery technically possible. During the surgery your liver needs to be lifted up to allow access to your stomach. If it is too big it is too

dangerous to attempt this and therefore surgery will be abandoned.

The liver shrinkage diet is also a good starting point for you so you can get in the right frame of mind for life after surgery. It also allows you to test out some of your strategies which will help you combat the times when you use food to relieve stress, out of habit or to relieve boredom.



Handy hints

- Please ensure you do your two week trial of the liver shrinkage diet prior to your assessment with Viv Love (Mental health Dietitian). Keep a diary of how you coped and how you felt so you can discuss this with Viv.
- Snack on vegetables such as cucumber, carrots and cherry tomatoes to help get you through the day. Or have a milky tea or coffee to keep you going.
- Keep yourself busy, plan lots of activities/nice things to do during your two week period to keep you occupied.
- Make those around you aware of what you're doing and explain that you're likely to be tired and possibly irritable during these two weeks.



Liver shrinkage diet

Option one:

Breakfast

Small bowl of plain cereal (25g or the size of a small multipack box).

OR

1 medium slice toast with scraping of margarine.

Lunch

1 slice of bread or 2 crisp breads.

AND

salad (no dressings unless just vinegar based without oil).

Small portion of meat or fish (size of pack of playing cards or 100g) or cheese (size of a small matchbox or 30g) or 2 eggs, or 2 tablespoons of baked beans.

Dinner/tea

1 egg-sized potato or 2 tablespoons (30g) of pasta or rice.

AND

vegetables - especially the green varieties. Stick to no more than 1 tbsp. of sweet corn, carrots, peas and beetroot as these contain more starch. Fill up on leafy green vegetables.

AND

small portion of one of the following, meat/fish/cheese/eggs/quorn/tofu (portions as above).

Daily

One third of a pint (190ml) of semi-skimmed milk or skimmed milk over the day for drinks and cereals, soya/rice/oat milk are also acceptable.

AND

Two portions of fruit (a portion is one apple, one pear, one small banana, an orange or a handful of berries).

AND

One low fat, low sugar yoghurt or fromage frais per day.

AND

Water/tea/coffee/low calorie squash/low calorie fizzy drinks allowed freely.

Limit fruit juice e.g. orange/apple/cranberry to one small glass a day (100ml).

Option two

An alternative to the low calorie diet is a very low calorie liquid diet. This would involve x4 Optifast or Slim fast sachets (or supermarket own brand) per day, plus 1-2 litres of calorie free fluids a day



(water or no added sugar squash etc).

Water/tea/coffee/low calorie squash/low calorie fizzy drinks allowed freely. Limit fruit juice e.g. orange/apple/cranberry to one small glass a day (100ml).

Option three

Four cans of low calorie soup such as Weight Watchers or supermarket own brand.

AND

Four low fat and sugar yoghurts such as Muller Light, Weight Watchers or supermarket own brand.

AND

1 pint of semi-skimmed/skimmed milk.



Water/tea/coffee/low calorie squash/low calorie fizzy drinks allowed freely. Limit fruit juice e.g. orange/apple/cranberry to one small glass a day (100ml).

For all options 1-3 you will need to take a multivitamin once a day such as Asda, Tesco own branded multivitamin, or Sanatogen A-Z.

Please note: if you take insulin or medications for diabetes that can lower your blood glucose levels you will need to speak with your GP or Diabetic Nurse prior to starting this diet as it will dramatically lower your blood glucose levels. If you have renal/kidney problems you will also require a slightly different diet please inform your Dietitian if you do.

Side effects

- Constipation - this can occur due to the total amount of fibre in your diet being reduced. To help prevent this drink 2-3 litres a day. If the problem continues take 1-2 sachets of Fybogel a day.
- Ketosis- this side effect is due to the body now burning fat instead of carbohydrate, which results in the body producing ketones. This process can cause unpleasant side effects such as bad breath, headaches, mild dizziness and nausea. Chewing sugar free gum after meals or having sugar free mints between meals can help.

If your occupation involves heavy manual labour or high levels of concentration then please contact your dietician as the liver shrinkage diet may have to be adjusted to suit your needs.

- Slim fast/Optifast/supermarket own branded weight loss formula.



EATING AFTER SURGERY

Surgery is only a tool to helping you achieve your weight loss; you do need to work with it by changing your eating habits and lifestyle to prevent weight re-gain in the future.

After surgery you will follow the outline below:

- Liquid diet weeks 1-2
- Puree diet weeks 3-4
- Soft diet weeks 5-6
- Reduced fat and sugar diet for the rest of your life.



Note: If you are having a gastric band you will be given a separate diet to follow.

Why is it important to follow the dietary guidelines set out?

During the first few weeks after your surgery you need to follow a liquid and texture modified diet. The reason for this is to prevent pressure on your stitches and to also prevent you from stretching your newly formed stomach pouch.

Please do not try to skip a step or eat solid food until you have progressed on to that stage as it is likely to cause discomfort and/or vomiting.

Aim to eat 3 small meals and 2-3 snacks or nourishing drinks throughout the day. Try to spend no longer than 20-30 minutes on your meals.

Day one post - op

- Day one post op- free fluids (50-100mls every 30 mins-1 hour).
 - Semi-skimmed/skimmed milk.
 - No added sugar squash/ fruit juice diluted with water (50:50).
 - Water/tea/coffee.
 - Ensure Plus Advance (Prescription nutritional drink)

Liquid diet (weeks 1-2)

For the first 3 weeks your diet will be based solely around liquids to allow your stomach time to heal. You will need to invest in a hand blender or food processor to ensure your liquid diet is the correct consistency. There should be no lumps or bumps in the liquid and it should be a thin pouring liquid (it should be able to come up through a straw).

Below is an idea of portion sizes but it does vary from patient to patient.

Sample menu plan

Breakfast: 2tbsps- ½ Weetabix/Ready Brek (mix with plenty of milk to ensure pouring liquid consistency) or 1 glass (200mls) of Slimfast (diluted with milk).

Mid Morning: tea/squash/semi-skimmed/ skimmed milk/water etc/low fat liquid yoghurt/ whey protein shake

Lunch: 1 small cup of meat/bean or lentil soup(200mls) or / Fortimel/Slimfast (diluted with milk).

Mid afternoon: tea/squash/milk/water etc/low fat yoghurt/whey protein shake.

Evening meal: as per lunch.

Supper: 1 small cup of hot chocolate/Ovaltine (low sugar/fat version) or glass of milk or low fat yoghurt.



Liquids to avoid

- Fizzy or sparkling drinks- these will only cause bloating feelings whilst also having no nutritional value.
- Alcohol- this provides no nutritional value and can actually irritate your stomach.

What's the right amount of fluid and when should it be taken?

- Try to aim for 1.5-2L (2 ½ -3 ½ pints) of fluid a day.
- Leave 30 minutes before and after your meals prior to drinking to allow your stomach time to empty and prevent vomiting.
- Carry a bottle of water/no added sugar squash around with you to help you meet your fluid requirements by constantly sipping on it throughout the day.
- Aim for 1 pint of semi-skimmed/skimmed milk e.g. whey protein/glasses of milk.

Why it is important to ensure your meals are nourishing.

- You will typically only manage a few spoons/very small meals to begin with therefore what you to have during your texture modified weeks needs to be very nutritious.
- You will still need 60-80g of protein a day after surgery.

Ideas to help you add extra protein in your meals

- Add 2-4 tbsps. of skimmed milk powder to 1 pint of milk and use throughout the day in tea/coffee/soup/cereals. Examples are five spoons and Marvel or supermarket own branded alternative.
- Add lean mince or beans to soup and liquidise.
- Opt for milky snacks/desserts such as yoghurt and custard (low sugar and fat versions).
- Have three small meals a day with snacks/milky drinks in between.



Puree diet (weeks 3-4)

All food consumed during the puree stage will need to be put through a blender to ensure it is still smooth. It is a similar consistency to baby food. You still need to ensure that what you're eating is nutritious as the nutritional value of a puree diet can be quite low. So still aim for 1 pint of milk a day (semi-skimmed/skimmed). Your portions sizes should be very small aim for 3 tablespoons at each meal so for example one tbsp. of meat/fish/beans/egg, one tbsp. of pureed

potato and one tbsp. of pureed vegetables.

Breakfast: 3 tbsps.- ½ Weetabix/Ready Brek (few tbsps. typically)/scrambled egg.

Mid Morning: tea/squash/milk/water etc./low fat and sugar yoghurt.

Lunch: small portion of pureed meat/fish/vegetarian alternative e.g. Quorn with creamed potatoes/rice or pasta and carrots/omelette/scrambled egg and well cooked baked beans
Pasta with tomato sauce and low fat cream cheese.

Mid afternoon: tea/squash/milk/water etc./low fat and sugar yoghurt.

Evening meal: Pureed stew/as above.

Supper: Stewed apple.

Soft diet (weeks 5-6)

Breakfast: 3 tbsps.- ½ Weetabix/Ready Brek/scrambled egg on toast/ well cooked beans on toast.

Mid Morning: tea/squash/milk/water etc./low fat and sugar yoghurt.

Lunch: small portion of casserole/fish/vegetarian alternative e.g. Quorn with creamed potatoes, carrots and swede/shepherds/cottage pie/crackers with low fat spreadable cheese.

Mid afternoon: tea/squash/milk/water etc/ low fat and sugar yoghurt.

Evening meal: stew/soft cooked pasta with a tomato sauce and low fat cream cheese/ well cooked rice with soft meat/ fish/as above.



Supper: Stewed apple/tinned fruit in natural juice/mashed banana.

Foods to avoid

- Stringy/fibrous vegetables or fruit such as pineapple/sweetcorn and celery.
- Fruit and vegetables with tough skin such as apples and tomatoes.

- Tough or fried meats.
- Alcohol and fizzy drinks as these will irritate and cause uncomfortable feeling in your new stomach.

Handy hints for the puree and soft phase

- Use a tea plate instead of a dinner plate.
- Eating the wrong textured food could cause vomiting so ensure you follow the dietary guidelines set out.
- Take time with your meals, eating too quickly can result in vomiting. It will take you about 20-30 minutes to eat your meals now. You need to chew each mouthful 20 times before you swallow it.
- Start off eating with teaspoons and gradually build up to tablespoons.
- If you can't tolerate meat opt for beans/eggs as your protein source. Fish may be better tolerated as it tends to flake which makes it easier to chew. Also vegetarian alternatives are also a good option as they are soft and moist.
- You must manage three meals a day, after the operation you won't always feel like eating and may sometimes forget as you have no appetite. However in order to ensure the best outcome you must eat regularly.
- Stop eating when you feel full or your newly created stomach could be stretched.

Handy hints to avoid some of the common side effects

Constipation:

- Ensure you're drinking 1.5-2 litres of fluid a day.
- Increase the soluble type of fibre such as porridge, inside of fruits (flesh) and vegetables.

Taste changes

- You may experience some taste changes, these maybe things you really enjoyed beforehand but after the operation you may no longer enjoy them.
- Avoid anything that makes you feel nauseous and re-try later down the line.

Vomiting

- Sit down and take your time with eating, your mouthfuls should be the size of a 20 pence piece.
- Don't take fluids and food at the same time.
- Check portion sizes.
- Be careful with poorly tolerated foods such as red meat and bread.

Hair loss

- Hair loss can result due to the rapid weight loss, the nutrients that you are taking in are needed to keep your vital organs working therefore your hair falls out as the body does not see it as a vital organ.
- It may start to fall out at 6 months and that's because your hair works on 6 month cycles so it may be reflecting what was happening months ago.

Lifelong eating

Below is a sample menu plan for 9-12 months after your operation. You may not manage these portions until later down the line. Everyone is different in terms of portion sizes so it will take you some time to realise what is right for you.

Example meal plan

Breakfast: 50g fruit and fibre cereal with 115ml of semi-skimmed milk or 30g porridge.

Lunch: 2 medium slices of toast with small can of baked beans.

Evening meal: 100g roast/grilled chicken (without) skin, green beans and carrots, 150g boiled new potatoes and 2 tbsps. of gravy.

During this time your eating habits will be changing and it's really important to get into good habits straight away to prevent a relapse/weight gain later down the line. You will still need to eat slowly, chew your meals well and stop when you feel full. It is important to follow a balanced eating plan. If your oral intake is not balanced you are more at risk of vitamin and mineral deficiencies as well as long term health conditions such as osteoporosis.



Balanced eating plan

A balanced eating plan involves 5 different food groups; however the different food groups should be eaten in different quantities. The 5 food groups are:

Protein

Protein is an important part of your diet as it is used as for growth and repair of the body. Protein provides B vitamins, zinc and iron which all have important roles in keeping your body functioning. Your protein intake is especially important whilst you are recovering from surgery as it will ensure your wounds and stomach heal. Choosing the right type of protein is also vital. The right types to choose are lean sources such as chicken and turkey or opting for the leaner cuts of red meat. Fish is also a good source of protein as it tends to be well tolerated as it has a different texture to meat. Vegetarian sources such as Quorn/tofu/ eggs and beans are also good low fat options.

Dairy

Dairy foods provide calcium which is needed to keep your bones strong and healthy, but they are also a source of protein. Opt for low fat varieties such as semi-skimmed/skimmed milk/ low fat and sugar yoghurts and low fat cheese. You need to have 3 portions a day of calcium rich foods, examples include:



- 25g matchbox sized piece of low fat cheese such as reduced fat options.
- 1 small low fat yoghurt (125-150g) low fat and sugar options include Muller light/ weight watchers and supermarket own branded diet yoghurts.
- 1 glass of semi-skimmed/skimmed milk.

Fruit and vegetables

Fruit and vegetables provide vitamins, minerals and fibre which help protect your body against some harmful diseases such as cancer and heart disease but they can also help prevent constipation which is common after surgery. You should include these within your daily eating plan, to begin with while you're recovering from surgery aim to include 3 portions a day but as you progress aim for 5 a day.

One portion is:

- 1 large fruit such as apple, banana, pear, nectarine or orange.
- 2 small fruits such as plums, tangerines and satsumas.
- A small handful of grapes.
- 1 tablespoon of vegetables.



Carbohydrate

Carbohydrate is the body's energy source as well as providing important fibre, vitamins and minerals. It is important to include a small amount of carbohydrate at each meal time. Good sources of carbohydrate include:

- Crispbreads such as Ryvita or supermarket own brand.
- Breakfast cereals such as weetabix, porridge and bran flakes.
- Bread - opt for wholemeal varieties, bread also tends to be better tolerated when toasted. Some people have long term issues with bread, if it causes a problem for you opt for crackers instead.
- The way in which carbohydrate foods are cooked can alter the nutritional content. Adding lots of fat by frying chips or spreading thick butter on toast will only increase the calorie content so opt for low fat options.

Sugary and fatty foods

These types of foods should be kept to a minimum as they will lead to weight gain if eaten in larger quantities and they may also cause dumping syndrome. Examples include:

- Sugar, biscuits and cakes.
- Crisps and chocolate.
- Sweets, ice cream and puddings.
- Pastries and pork pies.
- Salad dressings and mayonnaise.



When cooking add small amounts of oil, poach, grill or bake foods. Use a sweetener in tea or coffee rather than sugar and opt for non fizzy diet drinks.

Good sources of protein

Food type	Amount/portion size	Grams of protein
<i>Meat and poultry</i>		
Minced beef/lamb/pork or turkey	100g	18 -20g
Chicken breast (no skin - try with a low fat sauce)	100g	31g
Chicken drumstick (no skin)	1 drumstick	12g
Bolognaise sauce with minced beef	240g main meal	29g
Chilli-con-carne	220g main meal	20g
Chicken curry	200g main meal	25g
Shepherds pie	300g main meal	24g
Irish stew	300g main meal	23g
Lancashire hot pot	300g	22g
Beef lasagne	300g	29g

Food type	Amount/portion size	Grams of protein
<i>Fish</i>		
Canned tuna in brine or water	100g (small can)	26g
Canned sardines in tomato sauce	100g	21g
White fish (go for soft fish with a low fat sauce)	100g	17g
Fish pie	250g main meal	20g

Food type	Amount/portion size	Grams of protein
<i>Pulses/vegetarian sources</i>		
Lentils cooked	50g serving	16g
Chickpeas cooked	100g - 3 tablespoons	7g
Kidney beans	100g - 3 tablespoons	5g
Baked beans	200g - small can	9g
Chickpea dahl	200g/main meal	16g
Tofu/soya beancurd	100g	8g
Macaroni cheese	200g/main meal	13g
Cauliflower cheese	200g/main meal	12g

Food type	Amount/portion size	Grams of protein
Eggs		
Eggs e.g scrambled or poached	1 egg	12g
Omelette	2 eggs	24g

Food type	Amount/portion size	Grams of protein
Dairy		
Milk semi-skimmed or skimmed	200ml glass	7g
Soya milk (make sure you choose a calcium fortified brand)	200ml glass	7g
Skimmed milk powder (add up to 4 tablespoons to 1 pint of milk, add to soups, sauces and custards).	1 dessert spoon	5g
Custard - low sugar/low fat	200g (½ can or carton)	6g
Milk puddings e.g low fat/healthy choice rice pudding	200g (small portion or ½ can)	7g
Cottage cheese (go for low fat versions)	125g (½ carton)	16g
Mini Babybel cheese- light	1	5g
Cheddar cheese - reduced fat	30g (size of a matchbox)	10g
Light cream cheese	40g (sandwich or with crackers)	3g
Cheese sauce - made with low fat milk and reduced fat cheddar	100mls	8g
White sauce made with low fat milk	100mls	4g

Multivitamins and Minerals

Please increase your multivitamins and minerals to twice a day after surgery. At your 6 week appointment you will be prescribed vitamin B12, calcium with vitamin D and in some cases iron.



YOU MUST TAKE THE VITAMINS PRESCRIBED FOR THE REST OF YOUR LIFE, IF YOU DO NOT TAKE THEM THERE COULD BE SERIOUS COMPLICATIONS DUE TO DEFICIENCIES AND MALNUTRITION.

Eating Behaviour

Altering your eating habits is an important step in changing your diet and how you approach food, changing this behaviour starts now to prepare you for life post-surgery. This can be difficult as you will be changing habits of a lifetime. You will also have to follow an altered textured diet for a while after your surgery. Starting to make changes now will help you with this.

People say they sometimes use food as a comfort or as a treat. After surgery you won't be able to do this. Therefore start now to think of and find other ways to treat and comfort yourself for example reading a book or going for a walk.

When speaking with people who request weight loss surgery it's clear that everyone has their own hopes and aspirations for what weight loss will bring to their lives. You will have your own as well.

Surgery will help you lose weight but a healthy and enjoyable diet will ensure you maintain weight in the long term. This is important for maximising your energy levels and your general health. If you're eating habits and food choices do not alter you can re-gain weight even though you have had surgery.

Please see information from teaching session for more ideas.

YOUR HOSPITAL STAY

The surgery is performed at the Royal Shrewsbury Hospital and you will be on ward 33. You may be asked to come in the day before your operation. As you will only be in hospital for 1-3 days we strongly recommend you bring as little as possible – perhaps packing a small case or bag with basic toiletries, nightwear, dressing gown and slippers, something to read and comfortable clothes to travel home in. You should certainly **not** bring any valuables or large amounts of money. You will be asked to remove your jewellery before your procedure so again it is best to wear only *essential* jewellery items.

Medication

Patients with diabetes will notice their requirement for insulin or diabetic tablets falls after the surgery. You will need to adjust your dose or arrange for regular checks at your GP or diabetic clinic after leaving hospital.

If you suffer with sleep apnoea syndrome, you must bring your CPAP breathing machine to the hospital, as you will need it at night.

Patients with high blood pressure may over time note that their requirement for blood-pressure lowering tablets falls after the surgery. You will need to arrange for regular checks of your blood pressure at your GP practice.

Follow-up

One week following your operation the bariatric specialist nurse will phone you, just to check how you are recovering. Around three weeks after your operation the Bariatric Dietitian will phone, again just to see how you are getting on. If you

have any questions or concerns in-between times, please do not hesitate to contact us.

You will be seen again in the out-patients department by your consultant, nurse specialist and dietitian in around 6 weeks to discuss your progress and check your wounds.

What will my scars be like?

You will have a series (usually about 5) of small half inch scars.

If at any stage the wound appears red and swollen, or discharges fluid, this might suggest a wound infection and you should call your GP. This is fortunately not a common problem.

These small scars tend to heal well and after a few months should be barely visible. It is important to remember that everyone heals at a different rate.

At Home

We recommend you take 4-6 weeks off work, if you have young children, consider arranging some help from relatives or friends. Once the nausea and discomfort has started to settle you can gradually increase your activity.

Return to work depends upon the type of job you do. This can be discussed with the Nurse Specialist. We are able to provide a sick note which will cover you during your time in hospital.

Should I exercise?

It is important to do as much as you feel able. You must move around/walk at regular intervals in order to reduce the chance of any post-operative complications, e.g. Deep Vein Thrombosis. Exercise needs to be gradual and confined to cardiovascular activity, such as walking in the first few weeks, post surgery. Please avoid abdominal and vigorous exercise at this time.

You will notice that your ability to exercise improves after the surgery. Apart from speeding up the weight loss by burning off more calories, exercise reduces blood pressure and blood cholesterol and improves muscle tone, which may reduce the problems of sagging skin. You will improve your mood and may feel less stressed through exercise.

When can I drive?

You may resume driving after 10 days to 2 weeks from surgery. You need to be comfortable enough so that you are able to make an emergency stop (if necessary) without hesitation. Also, contact your insurance company for further advice.

What if something goes wrong?

Sometimes patients can experience problems after bariatric surgery, and your health and wellbeing is dependant on getting prompt and expert advice and help, no matter where you are. It may be that you only need reassurance or advice, but we are always there to help you.

If you experience any of the following symptoms, you should contact your GP or our hospital **immediately** for further advice:

- Difficulty swallowing
- A feeling that food is stuck
- Vomiting that does not settle
- You are not able to swallow fluids
- Sudden unexpected abdominal pain
- High temperature

Emergency situations may be managed at our hospital under our expert advice. We would not advise you to attend a centre without bariatric facility. If you are too unwell to travel, your local hospital may contact ours. In most situations, we may choose to transport you to our centre in order to receive prompt treatment from one of our own obesity surgeons.

Alcohol

There is no reason not to enjoy a small amount of alcohol, but alcoholic drinks are often energy rich and stimulate appetite. We recommend in the first 6 months while you are recovering from surgery you abstain from alcohol.

Medium white wine contains 94 kcal per 125 ml glass. Glasses are often bigger. A ½ bottle contains 280 kcal. A double whisky contains 110 kcal.

Weighing yourself

Don't weigh yourself too often, as the changes will be small.

Purchase good quality scales with a range to suit your weight, or find High Street weighing scales with a print-out.

Pre-menstrual fluid retention, urine in the bladder and clothing can weigh as much as your weekly loss.

Weigh yourself at the same time on the same day of the week and month.

Mental Health Issues

Bariatric surgery aims to help patients reduce their weight and therefore improve their general health and extend their life expectancy. However,

although many patients do feel happier after their operations, the surgery cannot be guaranteed to solve any existing psychological problems, relationship difficulties or any other mental health issues.

If you are bulimic, if you binge eat or if you regularly overeat in response to how you feel make sure you have discussed this with a health professional before surgery.

If you are receiving care from a community mental health service, letting them know you are about to have bariatric surgery will help you to receive the post-operative support you need

Problems with eating behaviours can come back after surgery and surgery does not change habits driven by emotional problems.

Not being able to use food as a comfort or a treat can be difficult so spend time before surgery developing other ways of treating and comforting yourself.

If after surgery you feel that your mood has dropped or you have become excessively worried about things, talk this through with your GP or one of the team at the hospital.

Can I become pregnant?

Yes hundreds of women have become pregnant after bariatric surgery without complications. It is essential that you inform us. Extra vitamins/mineral supplements are usually necessary.

If you are trying for a baby, we would advise you to wait for at least 12-18 months when your weight becomes stabilized. Becoming pregnant can be easier as you lose weight. Your menstrual cycle may become more regular.

Please be aware you may need to change your contraception if you do not want to become pregnant. It may not be absorbed like it was before.

Patient Support Group

Remember, the surgery is a tool and you will need to learn how to obtain the best results. You will find the patient support group an invaluable resource for learning from other patients and your success will, in turn, inspire other people considering surgery.

We run our own support group at the Princess Royal Hospital. Please look at the Trusts web site for times and dates.

FREQUENTLY ASKED QUESTIONS:

1. I'm vomiting after food what can I do to stop it?

Generally after surgery if you have issues with vomiting it is for one of three reasons:

1. You are eating too quickly.

Make sure you sit down for all your meals with no distractions such as the TV and be careful that if you are sitting opposite someone whilst eating that you aren't trying to keep up with their pace of eating.

Put your knife and fork down in-between mouthfuls and try and aim to stop eating before you get that full feeling (throat filling up for a sleeve or chest pain for a bypass).

2. You're eating too much in one go or drinking with meals.

If you have had a bypass your new stomach will only be able to hold 40-50mls at any one time. If you had a sleeve your new stomach can now hold 125mls. Measure that out and then place it in a cup so you can now see what your new stomach can hold so it will give you a better idea of how much to put on your plate/bowl.

3. Eating foods that are poorly tolerated e.g. bread or red/tough meat.

Avoid poorly tolerated foods such as red meat or bread. Avoid these until at least 9 weeks after surgery. Some people will not be able to tolerate these foods long term.

You may find that you struggle with meat long term after surgery, if you do opt for slow cooked soft meat in a sauce or mince meat e.g. spaghetti bolognese. If you still can't tolerate meat opt for more fish, beans, quorn/ other vegetarian alternatives or eggs.

2. My GP says my bloods are fine so has stopped prescribing my vitamins and minerals.

Although your blood levels may be fine recently after surgery all the evidence shows it is important to take all the vitamins and minerals long term as these deficiencies can happen anytime after surgery. It is better to be pro-active and not allow yourself to become deficient rather than the team having to arrange extra vitamin prescriptions as you have become deficient.

You should all be taking:

- A multivitamin and mineral twice a day. Either Asda or Tesco own branded or Sanatogen A-Z.

- Calcichew D3 1 tablet 2-3 times daily

- Vitamin B12 1 tablet twice a day or injection once every 3 months

You may have also been prescribed extra iron, zinc or copper depending on your blood results.

3. My friend had the same operation as me and has lost a lot more weight.

Over the years we have been involved with weight loss surgery we have found that there is not one rule that fits all. Different people lose weight at different rates and those who lose a lot of weight pre-surgery can find that their weight loss after surgery can come down in more of a step wise manner. Don't panic if you are not losing weight every week, you may find that your weight will come down by 2-3 kgs one week and then you might not lose any weight for another 2-3 weeks. We know that this is frustrating as you want to see the results weekly when you are working so hard but the weight loss will come, it might just come at a different rate for you.

4. I'm constipated. What treatments can I use?

In terms of dietary treatment for this ensure you are drinking at least 1.5L a day and increase this up to 2L a day as tolerated. Try to add soluble fibre into your diet e.g. stewed apple/mashed banana/vegetables with meal or porridge for breakfast.

Increasing gentle exercise will help to get your bowels moving, so try and go for a short walk on a daily basis.

5. I'm feeling tired all the time. What can I do?

You can become tired very quickly when you are only eating very small amounts. It is normal that you will experience this tiredness at some point after surgery. Ensure you are eating 3 regular well balanced meals a day and try to have nourishing drinks in-between meals e.g. milky tea/coffee or an Options or Highlights hot chocolate made with semi-skimmed/skimmed milk.

If you have had an iron deficiency before it may be that your iron levels have dropped again. Or if you are still of menstruating age it could that you

need iron supplements long term to protect your iron levels. We will be checking your blood levels when you come back to clinic so we can keep an eye out for any of these deficiencies.

6. I've noticed I've started snacking on foods that I haven't been bothered about for a long time.

Has anything happened in your life recently that has made you start snacking on these particular foods? Has work become very stressful or have you had a bereavement/family issue? Have old habits started to come back? Has your diet changed over Christmas and you need to get back on track?

Look at your relapse recovery plan for ideas of where you could be struggling and what can help you to overcome these issues. If you feel you need to talk this through with one of the team please contact us via phone or email.

7. My hair is still falling out

Losing your hair is a very common side effect after bariatric surgery. Your body takes all of the goodness from your meals and uses it to keep the essential parts of your body ticking over. Your hair also grows in 6 month cycles, when you have bariatric surgery your body can put your hair in the dormant stage where it doesn't grow. This typically happens about 3-4 months after surgery and generally hair loss doesn't continue longer than 6 months providing you are eating a well balanced diet.

It can be very distressing when/if you lose your hair as it is an important part of our body image. What we tend to find is that only you will notice the hair loss and that other people will not. It is important to ensure you eat your protein part of your meal first to ensure you get enough protein a day to promote re-growth.

8. I'm struggling to eat meat and bread.

It is normal to find issues with these types of foods and you may have issues with this long term. Please see answer to question 1 to find out further information about meat substitutes.

In terms of bread you may never be able to tolerate this after surgery. You may have to opt for crackers or toast instead as these are crunchier textures and they tend to be better tolerated.

9. Is it normal that I only open my bowels every 3-4 days?

As you are eating much less now it is normal that your bowels may not open for 3 or 4 days.

If you are constipated please see answer to question 4.

10. Do I need to have supplement drinks after my surgery?

It is advisable that you aim to take one Ensure Plus Advance drink a day diluted with semi-skimmed or skimmed milk. Please place a 1/3 of the bottle in a glass and top up with milk. Try freezing it in an ice cube tray for a more refreshing option.

If you find you cannot tolerate the supplement drinks at all then please switch it for whey protein shakes, glasses of milk, milky tea or coffee or low fat and sugar hot chocolate such as options or highlights.

11. Why have I got diarrhoea?

If you have recently had surgery then it can be your body getting used to the new way your food is passing through and this can take a couple of weeks to settle down. If you are a few months after surgery and this is something new or it has never settled down you may need to have a Dietetic review.

Make sure you aren't eating any high fat/sugar foods;

Opt for:

- Cheese: choose low fat spreadable options, reduced fat cheddar and cottage cheese.
- Use reduced fat crème fraiche for sauces rather than cream.
- Opt for plain desserts e.g. fruit scone/plain biscuits/low fat and sugar yoghurts e.g. Muller Light or supermarket own branded.
- Poach, steam, bake or boil rather than frying.
- Avoid pastry products.

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Further information is available from

- **Patient Advise and Liaison Services (PALS)**

PALS will act on your behalf when handling patient and family concerns; they can also help you get support from other local or national agencies. PALS is a confidential service.

Royal Shrewsbury Hospital

Tel: 0800 783 0057 or 01743 261691

Princess Royal Hospital

Tel: 01952 282888

Other Sources of Information

- **NHS Direct**

A nurse-led advice service run by the NHS for patients with questions about diagnosis and treatment of common conditions.

Telephone: 0845 4647

Website: www.nhsdirect.nhs.uk

- **Equip**

A West Midlands NHS website which signpost patients to quality health information and provides local information about support groups and contacts.

Website: www.equip.nhs.uk

- **Patient UK**

Provides leaflets on health and disease translated into 11 languages as well as links to national support/self-help groups and a directory of UK health websites.

Website: www.patient.co.uk

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