

Department of Nutrition and Dietetics

Diet for gastric bypass and sleeve gastrectomy

Information for patients, relatives and carers

Pre-operative diet for bariatric surgery

What is the aim of the diet?

The aim of this diet is to reduce the glycogen stores in the body especially those in the liver. This results in the liver 'shrinking' in size making it easier to move during surgery.

During laparoscopic or 'keyhole' surgery, the liver has to be lifted out of the way to access the stomach lying beneath it. If the liver is heavy, fatty and immobile, it is harder for the surgeon to see and gain access to the stomach underneath.

To reduce the glycogen stores in the liver, it is necessary to follow a diet that is low in carbohydrate, low in fat and high in protein. Foods high in starchy carbohydrate include bread, rice, potato, pasta and cereals. You will lose weight by following this diet, but more importantly, your liver will shrink and can be moved more easily, making the operation safer.

For the diet to be successful, it is important to stick to it for the full two weeks. There may be a temptation to have a special/larger meal prior to surgery, however, if you do this, this will reverse the liver reducing effects of the diet.

How long will I have to follow this diet?

It is recommended that you **follow this diet for two weeks prior to your surgery only**. It is **not to be continued after** the operation. If you have been asked to follow this diet for longer than two weeks, please contact the dietitians on 020 3312 5688.

How much carbohydrate am I allowed?

The diet is designed to give you approximately 100g of carbohydrate per day. Choose wholegrain varieties of starchy foods as these will help to fill you up more than refined or white bread, rice, and pasta etc. The diet is low in fat (although the extent to which will depend on the foods and cooking methods chosen) and moderate in protein. The energy provided by the diet is approximately 800-1000 kcal.

Menu plan

The following sample menu plan shows you what a typical day's intake may include.

Breakfast: (15g carbohydrate)

- 3 tbsp (20g) of Branflakes™ or Fruit & Fibre™ or
- 4 tbsp (15g) of Cornflakes™ or Rice Krispies™ or
- 1 Shredded wheat™ or
- 1½ Weetabix™ or
- 5 tbsp (35g) of All Bran™ or
- 25g of rolled oats or
- 1 slice medium sliced toast with scraping of spread

Lunch: (15-20g carbohydrate)

- 1 slice medium slice bread or toast or
- 2 ryvitas or
- ½ bagel or ½ pitta bread or ½ bread roll

with

- 2 eggs or
- 50g (1½ oz) cheese (no more than 3 portions per week) or
- 8 wafer thin packet slices of ham/chicken/ turkey or
- 100 g (4 oz) chicken, e.g. a chicken breast without skin or
- 100g (4 oz) meat or
- 100g (4 oz) fish or
- 100g (4 oz) quorn ,/tofu, or pulses or
- 100g (4 oz) pulses

with plenty of vegetables and salad (use lower fat dressings)

Ensure no more than 80g serving of root vegetables per meal such as: turnip, carrots, parsnips, beetroot, swede etc.

N.B. sweetcorn is very high in carbohydrate content so try to avoid or keep to one tablespoon per meal whilst following this pre-operative diet.

Evening Meal: (20g carbohydrate)

- 180g potatoes (boiled/mashed/roast) or
- 3 egg-sized (180g) new potatoes or
- 60g / 2 tbsp cooked rice/pasta (or 40 strands spaghetti (count when raw)

with

- 2 eggs or
- 50g (1½ oz) cheese or
- 8 wafer thin packet slices of ham/chicken/turkey or
- small chicken breast without skin or
- 100g (4 oz) meat or fish or
- 100g (4 oz) quorn, tofu, or pulses

with

plenty of vegetables/salad (use lower fat dressing)

Allowances throughout the day (40g carbohydrate)

- aim for at least 2 litres a day of free fluids i.e. unlimited water, tea, coffee, low-calorie squash, low-calorie fizzy drinks
- two portions of fruit or one portion of 150ml fruit juice.
- 1/3 pint (200ml) of milk for drinks and cereal.
- one small pot (125g) low fat/low sugar yoghurt per day (diet or 'lite' varieties)

Fruit portions list

A serving of fruit is 80g:

- 2 small fruit e.g. plums, apricots, satsumas
- 1 medium fruit e.g. apple, orange, banana
- 1 slice of very large fruit e.g. melon, pineapple
- ½ a grapefruit/avocado
- 1 cupful of berries e.g. strawberries, raspberries or grapes
- 3 heaped tbsp fruit salad (fresh or tinned in fruit juice) or stewed fruit
- 1 tbsp of dried fruit e.g. raisins, sultanas

It is important **not to eat less** than the prescribed portions of carbohydrate as this can make you feel unwell. Other foods on the menu will provide you with protein and fat. Eating these foods means that it should not be necessary for you to take any vitamin or mineral supplements.

Post-Operative Eating Plan

What is the aim of the diet after surgery?

- to help develop healthy eating habits
- to ensure a balanced daily intake of nutrients to minimise the risk of deficiencies.
- to reduce your calorie intake in order to bring about weight loss

One of the most important nutrients to consume is protein. Protein is important to promote wound healing and to help maintain muscle and organ mass.

Vitamin and mineral supplements

It is important to start taking a multivitamin and mineral supplement every day for the rest of your life. The one that is currently recommended and on prescription is Forceval™, one tablet daily. If you find Forceval difficult to tolerate or you cannot obtain it on prescription, then you can take any other **complete** multivitamin and mineral supplement but you will need to take two tablets each day, eg. Sanatogen A-Z Complete, Superdrug A-Z multivitamin & minerals, Tesco A-Z multivitamin & minerals and Lloyds A-Z multivitamin & minerals.

There is also a liquid formulation of Forceval if you are unable to tolerate the capsule.

Post-operative eating plan

There are three stages of texture modification following surgery. This is to minimise pressure in the gastric pouch, to promote healing, and prevent vomiting:

- liquid diet (for 10 days)
- puree diet (for around 3-4 weeks)
- soft diet (for around 6 weeks)

This is followed by a **healthy diet** of a normal texture from 12 weeks onwards for life.

You should always:

- try to identify when you have had enough to eat or drink
- aim to stop eating/drinking when you feel satisfied which is **before** you get a feeling of discomfort or nausea or a wish to vomit

Fluids need to be taken slowly so that you can develop a sensitivity to how easily they pass into the stomach area.

Clear fluids should pass through your gut easily at all times without any difficulty.

If you are having any difficulty with clear fluids you should contact the **Bariatric Specialist Nurse on 020 3312 5689**.

Immediately after the surgery your diet will need to be liquid and taken in small quantities. This will enable the swelling in the tissues to settle and heal. Eating solid foods can put a strain on your newly formed stomach and may cause serious problems.

Day of surgery

After you awake from the anaesthetic you will be able to have sips of fluid and ice to suck. You will have an intravenous drip in your arm and this will provide all the fluid you need. The fluids you take orally at this stage are just to keep your mouth comfortable.

Day 1 post surgery

Continue to drink slowly in small sips and wait in between sips for a minute or two. You can drink milk, tea, coffee or water. You should aim to consume at least 2 litres of fluid in these 24 hours.

The first 10 days—liquid diet

For the first ten days after the operation, aim to have high protein drinks, shakes or soups that are smooth with no lumps regularly spread throughout the day. You can top up with other drinks to meet your body's requirements of at least **2 litres of fluid a day**.

Whilst following a liquid only diet, it can be more difficult to meet your nutritional requirements so you will need to ensure the liquids you do consume contain adequate protein. You can do this by making up your own high protein drinks (see below), or by buying commercial products such as protein shakes and soups. Aim to consume **60g protein and a minimum of 800 calories each day**.

The important thing to remember is to listen to your body and let it guide you. Remember to drink **slowly**, taking small sips and waiting between swallows.

High protein drink recipes

High protein milk

40g protein per pint (14g protein per 200ml serving)

Ingredients

60g (4 tbsp) skimmed milk powder (21g protein)

570ml (1 pint) cold skimmed or semi-skimmed milk (19g protein)

Optional vanilla extract / unsweetened cocoa powder / coffee

Method

Mix milk powder with a little of the milk to form a paste. Stir in the rest of the pint of cold milk.

You can use this high protein milk in all drinks such as tea, coffee, Complan, Ovaltine, and soups and custard.

Fruit smoothie

serves 2 (12g protein per serving)

Ingredients

½ pint (250ml) high protein milk (18g protein)

¼ pint (100ml) low fat yoghurt (6g protein)

3 oz (100g) fresh fruit e.g. bananas or strawberries

Method

Combine all ingredients in a blender and blend until smooth. Serve chilled on ice.

For more smoothie recipes, please see Appendix 1.

Commercial products

If you prefer to buy protein shakes, the following products can be bought from most pharmacies and supermarkets.

We do not recommend any specific protein drinks or powders as all the body's protein requirements can be met via homemade drinks, soups and shakes. The list below gives an example of adequate protein supplement drinks widely available in the UK as of Spring 2019.

You will need to determine whether the price, flavour and texture are agreeable to you.

- **Meritene – 15g protein per serving**
(made with 200ml milk)
- **Meritene -18g per serving**
(ready to drink, 200 ml bottle)
- **Meritene soups™ – 7g protein per serving**
(made with 150ml water)
- **Complan™ – 16g protein per serving**
(made with 200ml milk)
- **Complan soup - 8.7gprotein per serving**
- **Slimfast™ – 15 g protein per serving**
(ready to drink, 325ml bottle)
- **Slimfast™ – 14g protein per serving**
(powder, made up with 250ml milk)
- **UFit Protein Milkshake™ – 22g protein per serving**
(ready to drink , 310 ml bottle)
Lactose free options available
- **V24 Protein Shots™ – 24g protein per shot**
Lactose free
- **Asda Protein Water™ – 15g protein in 250 ml serving**
(500 ml bottle)

Supermarkets and pharmacies may also sell their own brand protein shakes and soups which may also be suitable.

For more commercially available protein shake products, please see Appendix 2.

Lactose free options

If you are intolerant of lactose you can try lactose-free cows' milk or soya milk. Most major supermarkets will sell their own brands.

You can also obtain lactose free protein powder to fortify your drinks and soups, for example Ecomil Soya or Nut Powder, or Aptamil.

Days 11–35—Puree diet (for 3½ weeks)

After 10 days on the liquid diet, you will be able to start to eat foods of a thicker consistency. All foods for the next 3½ weeks will need to be blended to a puree consistency.

Try 1-2 tsp of food at a time to see if tolerated. Each meal should only consist of only 2-4 tbsp. You should always eat the **protein foods first** at each meal.

Keep yourself hydrated, but remember to drink slowly in small sips, waiting in between sips for a minute or two. Drink 20 minutes before eating and wait for about 45 minutes to one hour after eating before you drink again. Overall, you should aim to drink at least 1½ litres (2½ pints) of fluid per day.

The following provides a suggested plan for this period

Menu plan

Breakfast:

½-1 Weetabix™ with high protein milk **or**
1 pot yoghurt or fromage frais **or**
2 tbsp of porridge or Ready Brek™ made with high protein milk

Mid-morning:

200 ml high protein drink

Lunch:

1 cupful of soup made with with fish /meat / beans / pulses and potato **or**
1 scrambled egg **or**
1-2 tbsp pureed fish / pulses / chicken / meat **or**
1-2 tbsp mashed cottage cheese

with ½ tbsp pureed vegetables

and ½ tbsp mashed potato/sweet potato /winter squash

Mid-afternoon:

150ml yoghurt with or without added pureed fruit **or**
150 ml fruit smoothie **or**
200 ml skimmed or semi-skimmed milk **or**
2 tablespoons low fat custard

Evening meal:

1-2 tbsp pureed fish / pulses / chicken / meat
with ½-1 tbsp blended vegetables.

and ½-1 tbsp mashed potato/ sweet potato /winter squash

Evening snack:

200ml high protein drink

Tips

- eat the protein foods first at each meal, then the vegetables and finally the starchy food. In the early days, you may only be able to manage the protein part of the meal
- you may need to add milk, broth or low fat gravies to the above foods. Use a blender to make these foods into a puree consistency.
- add skimmed milk powder or protein powders to foods to boost the protein content
- you can use high protein milk in cereal, mashed potato, scrambled egg or when making soups to boost the protein content
- try one new food at a time. If you feel nauseated, or experience gas or bloating, then you are not ready for this food. Try this food again in a few days
- food can be liquidised in bulk and frozen. An ice cube holder can be used for portioning out food.
- meat and chicken that have been slow-cooked or casseroled will be more tender and easier to blend and tolerate
- portions may need to be adjusted depending on your individual tolerance. Listen to your body and stop when you are full. You can eat more of your meal when you feel hungry again.
- serve food on a side plate or ramekin dish and eat with a teaspoon
- carry a bottle of water or high protein drink with you at all times and sip on it throughout the day

Weeks 6-12—Soft diet

After about 3½ weeks on the puree diet, you will no longer need to blend your foods. You can gradually add foods that are soft in consistency. Generally, these foods should be easy to mash with a fork.

There are some foods in the menu plan that are more solid / crunchy so it is very important to chew these foods thoroughly to avoid nausea or regurgitation.

Continue to focus on the protein foods, ensuring that you include these foods at every meal and eat them first.

The following provides a sample menu for this period

Menu plan

Breakfast

1 Weetabix™/ 25g porridge oats/ All Bran / Branflakes™ with skimmed or semi-skimmed milk **or**
scrambled egg with 2 wholegrain crispbreads/crackers with 1 tsp butter/margarine/low fat cheese spread

Mid-morning

150ml light natural yoghurt/fruit yoghurt **or**
200ml semi-skimmed milk **or**
200 ml high protein drink

Lunch

200ml high protein soup e.g. chicken / lentil / bean / fish **or**
small jacket potato without skin with 40g cottage or low fat cheese **or**
macaroni cheese / cauliflower cheese

Evening meal

50g fish / chicken / turkey / ground beef
with ½ cup soft cooked vegetables

and ½ cup mashed potato / sweet potato / winter squash / risotto / 4-6 wholegrain crackers/1 slice wholegrain toast

Dessert

150ml low fat natural or low sugar fruit yoghurt **or**
½ cup pureed / stewed / soft / tinned fruit **or**
1 scoop sorbet **or**
200 ml high protein drink

Ensure you drink enough to keep yourself hydrated. Aim to drink 8-10 cups of water and low calorie drinks **in between your meals**. You can take a drink around 20 minutes before a meal but will need to wait 45 minutes to one hour after your meal before you take a drink.

Tips

- use healthy cooking methods (i.e. bake, grill, broil or poach meats) and use herbs and spices to flavour foods
- if using oil, measure out a small amount (1-2 tsp)
- add chicken, beef or vegetable stock, low fat gravies or low fat cream soups to moisten meats
- chew meats well

Try 1 tbsp of a new food every 1-2 days. If you feel nauseated or bloated after eating then you are not ready for this food. Wait a few days before trying this food again

After 12 weeks—Healthy diet

At this stage, you may feel ready to progress onto a healthy diet. It is also possible that you may not feel ready, in which case you should stick to the soft diet for a bit longer. Continue to add new foods in slowly. Fresh fruit and vegetables can be added in as tolerated.

You should aim to consume about **60g-70 g protein** per day and an energy intake of between **800-1200 calories per day**.

Aim for **5-6 small meals** each day. As the pouch expands, 3 small meals and **2 high protein snacks** may be more appropriate. Remember to include **8-10 glasses** of water and low calorie beverages each day.

Keep meal-time portions small by using a small plate.

Use the following list to ensure you eat a balance of nutrients and at least 60g of protein each day.

Protein group

(7g protein per serving)—aim for 5-6 servings per day ie. 35-42g protein

1 egg

28g (1 oz) cooked lean meats (chicken/turkey/pork/ /beef)

28g (1 oz) fish

1 tbsp peanut butter

28g (1 oz) low fat cheese

150g (4 oz / 2 ½ tablespoons) cooked beans, peas, or lentils

85g (3 oz) tofu

60g (2 oz) quorn

Avoid eating red meat more than 2-3 times a week. Try to eat more fish, poultry and pulses instead.

Milk group

(6g protein per serving)—aim for 2-3 servings per day ie. 12-18g protein

1 cup (200ml) skimmed or semi-skimmed milk

120g low fat/'lite' yoghurt (no added sugar)

1 cup sugar free pudding made with skimmed or semi-skimmed milk

¼ cup /40 g (1½ oz) low fat cottage cheese

28g (1 oz) low fat cheese

Starch group

(3g protein per serving)—aim for 4- 5 servings per day ie. 12-15g protein

1 slice wholegrain bread (toast may be better tolerated)

1 chapatti

4-6 wholegrain crackers

¾ cup unsweetened dry cereal

¾ cup potatoes, yam, winter squash, corn or peas

1/3 cup cooked rice (85g), pasta, cous cous

Fruit group

(0g protein per serving)—aim for at least three servings per day

½ cup tinned fruit in juice

½ banana or small fresh fruit (avoid skins and membranes)
½ cup unsweetened, diluted fruit juice (limit to ½ cup a day)

Vegetable group

(2g protein per serving)—aim for at least 3 servings per day ie. 6g protein

½ cup cooked non-starch vegetables
1 cup salad vegetables

Fat group

(0g protein per serving)—no more than 5 servings per day

1 tsp margarine or oil
2 tsp low fat spread
1 tsp mayonnaise
1 tbsp low fat mayonnaise or salad dressing

Bariatric plate
½ plate of protein
¼ vegetables
¼ starchy foods

Sample meal plan

Breakfast

Wholegrain cereal / porridge / Ready Brek™ made with milk **or**
wholegrain toast / crackers / crispbread with 1 tbsp of low fat cheese
spread / peanut butter / houmous **or**
scrambled egg on toast **or**
baked beans on toast

Mid-Morning

Fruit , Tea / coffee
Cracker with low fat spreadable cheese / peanut butter

Lunch

200ml high protein soup (e.g. chicken / lentil / bean) **or**
baked beans / sardines / poached egg on toast **or**
bean and rice salad **or**
small jacket potato with baked beans / tuna / cottage cheese

Dessert

150ml light natural or fruit yoghurt **or**
½ cup soft / pureed / stewed fruit **or**
1 scoop sorbet

Mid afternoon

Tea / coffee / vegetable juice
Fruit / low fat yoghurt

Main meal

Small serving of lean meat / fish / egg / beans / lentils / tofu / quorn
with a serving of vegetables or salad
and small serving of potatoes / brown rice/ brown pasta / chapatti /
yam / plantain / cassava

Dessert

Fruit / low fat yoghurt / low fat puddings

Healthy snacks

If you are feeling hungry in between meals you could try the following snacks:

- fresh or tinned fruit
- unsalted nuts or seeds (15g portion)
- low fat cheese (30g portion) or low fat mini babybel
- yoghurt
- vegetable crudites with peanut butter or hoummous or salsa
- cottage cheese or spreadable light cheese on 1-2 wholegrain crisp breads, crackers or oat cakes.
- bean or meat low calorie soup
- milky drinks
- sugar free angel delight made with skimmed milk

Post-operative complications

1. Dumping syndrome

Dumping syndrome is a common side effect after bariatric surgery. It happens when the lower end of the small intestine (the jejunum) fills too quickly with undigested food from the stomach. There are two types of dumping:

Early dumping - can occur during or right after a meal. Symptoms of early dumping include nausea, vomiting, bloating, cramping, diarrhoea, dizziness and fatigue

Late dumping - can happen 1-3 hours after eating and is usually due to a low blood sugar. Symptoms of late dumping include weakness, sweating and dizziness

Management of early dumping syndrome

- lie down as soon as you experience these symptoms, you are likely to feel better after around 30 minutes.

To avoid experiencing early dumping symptoms:

- avoid chocolate, biscuits, cakes, sweets, desserts, high sugar drinks, high glycaemic index carbohydrates
- eat several small meals a day
- drink liquids **between** meals **not with** them

Management of late dumping syndrome

- drink ½ cup of orange juice and follow on with ½ banana or ½ slice of wholegrain toast

To avoid experiencing late dumping symptoms:

- Avoid chocolate, biscuits, cakes, sweets, desserts, high sugar drinks, high glycaemic index carbohydrates
- Eat several small meals a day containing protein-rich foods
- Drink liquids in **between** meals, **not with** them

2. Constipation

If you are suffering with constipation it may help to take a laxative such as lactulose, fibrogel, movicol or senna. Ensure you increase your overall daily fluid intake at the same time. To avoid becoming constipated, ensure you are eating enough high fibre foods, for example, fruits and vegetables, wholegrain cereals and pulses, together with adequate fluid. It is also important to be active and try to do some exercise to improve bowel function.

3. Nausea, Vomiting and Indigestion

If you experience any of the above symptoms, it may be for one of the following reasons:

- eating too quickly
- not chewing enough
- eating too much
- drinking with the meal or within half an hour after eating
- lying down too soon after eating

If you think these symptoms were not due to any of the above, then please contact the bariatric nurses for advice.

4. Diarrhoea

There are several reasons why you may experience diarrhoea after surgery. If it persists, please contact the bariatric nurses for advice.

5. Feeling Tired

It is quite common for people to feel tired and to have low energy levels in the early weeks after surgery. This is usually due to the fact that it is difficult to consume adequate calories and protein and the fact you are losing weight. Aim to consume at least 60g protein and 800 kilocalories each day. If you are struggling to do this, it can be helpful to include protein shakes to help meet this target.

Tiredness can also, but less commonly, be due to a vitamin or mineral deficiency, so please do ensure you take your multivitamin and mineral supplement daily.

6. Hair Loss

Towards the end of the second month following surgery, it is common to experience some hair loss. Again, this is usually due to an inadequate intake of calories and protein. Once weight loss has reached a plateau, this problem is usually resolved.

7. Vitamin and Mineral Deficiencies

An essential part of the post-operative protocol is to take a daily multivitamin and mineral supplement. This is for two main reasons:

- it is difficult to eat enough of these nutrients with your smaller stomach
- it is harder for your body to digest and absorb these nutrients.

Individuals who do not take a daily vitamin and mineral supplement after surgery are more likely to develop a micronutrient deficiency with potentially serious consequences.

In addition to the multivitamin and mineral supplement, we will ask your GP to prescribe the following supplements for life:

- Vitamin D and calcium, for bone health
- Vitamin B12 injections for a healthy nervous system and for production of red blood cells.

On top of the above, you may need additional supplements depending on your blood test results and any accompanying symptoms.

8. Inadequate weight loss

Some soft, simple carbohydrate foods 'slide' through the stomach and require very little digestion. These foods are known as '**slider foods**'. Eating slider foods is one of the biggest causes of inadequate weight loss, since they are usually high calorie and have little nutritional value. Many people turn to slider foods because they are very easy to eat, unlike high protein foods, which require a lot of chewing and can cause discomfort if eaten too quickly. Examples of slider foods to avoid include:

- crisps
- biscuits
- crackers

- popcorn
- sweets and cakes
- milkshakes
- chocolate

Long term lifestyle plan / summary

In the long term, to obtain the greatest benefit from your surgery it is important to follow the following guidelines:

1. Enjoy a high quality diet, such as a Mediterranean food pattern of eating, with a focus on protein rich foods at each meal together with vegetables, salads, wholegrains, unsalted nuts and fruit.
2. Eat three meals per day and choose healthy snacks if you are hungry in between meals.
3. Avoid foods high in fat, saturated fat and sugar such as biscuits, cakes, muffins, sweets, confectionary, chocolate and crisps
4. Aim to follow the '**rule of 20**':
 - a. Cut your food up well, and take a **20** pence piece size portion onto your spoon or fork
 - b. Chew this **20** times
 - c. Wait for **20** seconds after swallowing before taking a second mouthful
 - d. Eat in this manner until you are satisfied, rather than 'full' or 'stuffed' and for no longer than **20** minutes.
5. Avoid drinking at meal times.
6. Drink often throughout the day; take small sips and aim for a minimum of 1.5-2 litres of fluids daily.
7. Avoid carbonated and sugary drinks.
8. Avoid alcohol for the first 12 months.
9. Monitor your weight and food intake if you find this helps you keep on track. Some people find it helpful to join a commercial weight loss group.
10. Exercise regularly – be prepared to increase your activity levels to at least 30 minutes brisk walking daily.
11. Take your vitamin and mineral supplements.
12. The surgery alone will not bring about weight loss, it will only help you to reduce the amount you can eat. You need to eat fewer calories, follow a healthy eating diet and increase physical activity where possible, to achieve long-term weight loss.

Useful Information

1. Bariatric Surgery

- NHS choices weight loss surgery <https://www.nhs.uk/conditions/weight-loss-surgery/>
- Imperial College Healthcare NHS Trust www.imperial.nhs.uk/our-services/surgery/bariatric-surgery
- British Obesity Surgery Patients Association www.bospa.org
- WLS Info (Weight Loss Surgery Information & Support) www.wlsinfo.org.uk
- British Obesity & Metabolic Surgery Society www.bomss.org.uk (see patient section)
- Recipes for life before and after bariatric surgery- bariatric cookery book from NDR UK £6.50 <https://www.ndr-uk.org/item/212/BariatricSurgery/Recipes-for-Life.html>
- Bariatric cookery <https://www.bariatriccookery.com/>

2. Healthy Eating and Exercise

- British Dietetic Association www.bda.uk.com/foodfacts/home
- British Heart Foundation www.bhf.org.uk
- World Cancer Research Fund – www.wcrf-uk.org/uk
- NHS Choices www.nhs.uk/Livewell/
- Healthy Food Guide UK- healthy recipes and monthly meal plans. <http://www.healthyfood.co.uk/>
- Diabetes UK www.diabetes.org/Guide-to-diabetes/Recipes
- Change for Life- healthy recipes, meal ideas and shopping tips- you can monitor your sugar intake with the 'Sugar Smart app' and find healthy recipes on the 'Smart Recipes' app <http://www.nhs.uk/Change4Life/Pages/meal-planner-recipe-finder.aspx>

3. Psychotherapy / Counselling

- British Association of Counselling and Psychotherapy –www.bacp.co.uk
- United Kingdom Council for Psychotherapy www.ukcp.org.uk
- Improving Access to Psychological Therapies- www.iapt.nhs.uk
- Alcohol www.drinkaware.co.uk
- Smoking – see your health professional or GP for local support services

4. Support Groups

- **BOSPA- St Mary's Hospital**
7.00pm to 9.00pm Glazer Room, 3rd floor
Queen Elizabeth Queen Mother Building
Contact Georgina Hayman on: 07742987715 for dates
- **WLS info- Central London-** the Princess Grace Hospital, W1V, 3rd Saturday of the month
Contact: centrallondonsupport@wlsinfo.org.uk

5. Useful reading

- Living with Bariatric Surgery: Managing your Mind & Your weight by Denise Ratcliffe

- Emotional First Aid Kit: A Practical Guide to Life after Bariatric Surgery by Cynthia L Alexander
- Intuitive Eating, by Evelyn Tribole, and Elyse Resch

6. Bariatric apps

- **Baritastic** - allows you to monitor your diet, fluid intake, physical activity, weight and measurements. Includes recipes.
- **Bariatric IQ** - includes patient forums and menu plans

Appendix 1

Smoothie recipes

To ensure variety, please see the smoothie recipes below. Please note that they are lower in protein than the 'high protein list' above.

To make up all the following recipes, combine all ingredients in a blender and blend until smooth.

Breakfast smoothie

Serves 2 (3g protein per serving)

Ingredients

*1 pot low fat low sugar vanilla yoghurt
1 cup unsweetened orange or apple juice
1 medium banana
1 cup frozen strawberries*

Pear and apple smoothie

Serves 2 (3g protein per serving)

Ingredients

*400ml unsweetened apple juice
2 pears (peeled)
1 pot low fat/low sugar vanilla yoghurt*

Melon and banana smoothie

Serves 2 (4.5g protein per serving)

Ingredients

*½ melon
2 pineapple rings in natural juice
2 medium sized bananas
½ pint semi-skimmed/skimmed milk*

Kiwi smoothie

Serves 2 – 6g protein per serving

Ingredients

*3 ripe kiwi fruit
1 pot low fat/low sugar yoghurt
100ml semi-skimmed/skimmed milk*

Coffee cooler

Serves 2 (7g protein per serving)

Ingredients

*1 tsp coffee
200ml fortified semi-skimmed/skimmed milk
4-6 ice cubes*

Appendix 2

Commercially available Protein Shakes

We do not recommend any specific protein drinks or powders as all the body's protein requirements can be met via homemade drinks, soups and shakes as previously described. The list below gives an example of protein supplement drinks widely available in the UK as of Spring 2019.

- **UFit Pro 50 Protein Milkshake -25g protein per 250 ml serving** (ready to drink 500ml bottle) (lactose free).
- **Huel** – 30g protein per 100g product made up with 300 ml water (suitable for vegans).
- **Optimum Nutrition Gold Standard 100% Whey Powder** – 24 g protein per 200 ml serving.
- **Optimum Nutrition Vanilla Yoghurt Smoothie Protein Powder** -35g protein per 200 ml serving
- **Slimfast Vitality High Protein** – 26g protein per 330 ml serving (lactose free)
- **PhD protein Superfood Smoothie** – 20g protein per 130 g sachet (Soya, dairy, and gluten free)
- **Vega Clean Protein Vanilla** – 35g protein in 200 ml serving (suitable for vegans)

How do I contact my dietitian?

If you have any queries or questions regarding the diet, or have started feeling unwell after following it, please contact

Imperial Weight Centre 020 3312 6449
St Mary's Hospital, Praed Street, London, W2 1NY

Obesity Specialist Dietitians 020 3312 5688
imperial.bariatric.dietitians@nhs.net

Hammersmith Hospital 020 3313 3048
Charing Cross 020 3311 1445
St Mary's Hospital 020 3312 6398

Your dietitian is _____

How do I make a comment about my visit?

We aim to provide the best possible service and staff will be happy to answer any of the questions you may have. If you have any **suggestions** or **comments** about your visit, please either speak to a member of staff or contact the patient advice and liaison service (**PALS**) on **020 3313 0088** (Charing Cross, Hammersmith and Queen Charlotte's & Chelsea hospitals), or **020 3312 7777** (St Mary's and Western Eye hospitals). You can also email PALS at **imperial.pals@nhs.net** The PALS team will listen to your concerns, suggestions or queries and is often able to help solve problems on your behalf.

Alternatively, you may wish to complain by contacting our complaints department:
Complaints department, fourth floor, Salton House, St Mary's Hospital, Praed Street
London W2 1NY
Email: **ICHC-tr.Complaints@nhs.net**
Telephone: **020 3312 1337 / 1349**

Alternative formats

This leaflet can be provided on request in large print or easy read, as a sound recording, in Braille or in alternative languages. Please email the communications team:
imperial.communications@nhs.net

Wi-fi

We have a free wi-fi service for basic filtered browsing and a premium wi-fi service (requiring payment) at each of our five hospitals. Look for WiFiSPARK_FREE or WiFiSPARK_PREMIUM