



Post-Operative Eating Plan: Gastric bypass and Sleeve gastrectomy

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

The most important nutrient to consume post bariatric surgery is protein. Protein is important to promote wound healing; help maintain muscle and organ mass and minimise side effects such as hair loss and brittle nails.

Vitamin and mineral supplements

Bariatric guidance recommends you take a daily multivitamin and mineral supplement every day for the rest of your life. The one that is currently recommended and on prescription is Forceval^{TM,} one tablet daily. If you find Forceval difficult to tolerate talk to your bariatric team about an alternative.

Post-operative eating plan

There are three stages of texture modification diet following surgery. This is to minimise pressure in the gastric pouch, to promote healing, and prevent vomiting and also helps you learn new eating habits gradually to help make your surgery successful:

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

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

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 to 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 and should aim to consume at least 2 litres of fluid in these 24 hours. Your liquids will need to be taken in small quantities to enable the swelling in the tissues to settle and heal. You must not eat solid foods as these can put a strain on your newly formed stomach and may cause serious problems.

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.** This can be difficult on a liquid diet, try to initially aim for 1 litre of protein drink and 1 litre of other fluids.

Remember to drink **slowly**, taking small sips and waiting between swallows or you are likely to vomit.

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: Nesquik powder / milkshake 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.

Commercially available Protein Shakes

There are a variety of different protein drinks/ powders available in most supermarkets, health food shops and online. These can be an easy option to help you meet your protein requirements. It is a good idea to try different protein drinks before surgery as the taste of these varies significantly. There is an example of some of the protein drinks available at the end of this booklet.

Days 11–35—puree diet for 25 days

After 10 days on the liquid diet, you will be able to start to eat foods of a thicker consistency for the next 25 days. All foods for the next 25 days will need to be blended or a natural puree consistency.

Try 1-2 tsp of food at a time to see if tolerated and aim to eat the **protein foods first** at each meal.

Continue to aim for 2 litres of fluid including some protein drinks, as your portion sizes of pureed diet will not be sufficient to provide all your nutritional requirements. Drink 20 minutes before eating and wait for about 45 minutes to one hour after eating before you drink again.

Menu plan

Breakfast:

½-1 Weetabix[™] with high protein milk **or**

1 pot yoghurt or fromage frais or

2 tbsp of porridge or Ready BrekTM made with high protein milk

Mid-morning:

200 ml high protein drink or yogurt

Lunch:

1 cupful of soup made 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

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
- if you need to chew your food, the consistency is too thick. Ensure the foods are smooth with no lumps.
- add skimmed milk powder or flavourless protein powders to foods to boost the protein content
- try one new food at a time. If a food doesn't agree with you, try it again in a few days as your stomach may need time to adapt to surgery
- food can be liquidised in bulk and frozen. An ice cube holder can be used for portioning out food.
- Your body will dictate the portion size. Listen to your body and stop when you are full before you start to feel uncomfortable.
- carry a bottle of water or high protein drink with you at all times and sip on it throughout the day
- Do not eat baby food. This does not provide you with the adequate nutrition.

Weeks 6-12—soft diet

After 25 days on the puree diet, you will no longer need to blend your foods. You can gradually add foods that are soft in consistency (foods which you can mash with a fork).

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

Menu plan

Breakfast

1 WeetabixTM/ 25g porridge oats/ All Bran / BranflakesTM with 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** shepherd's pie

Evening meal

50g fish / chicken / turkey / ground beef/ pulses/ Quorn 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 200 ml high protein drink Small pot of custard/ Angel delight

Remember to continue to aim for 2 litres of sugar free fluids **between your meals.** You will need to separate you food and fluids by 30 minutes.

Tips

- add chicken, beef or vegetable stock, low fat gravies or low fat cream soups to moisten meats
- 1. 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.
- Continue to eat your protein foods first followed by high fibre foods
- If you struggle to eat tougher proteins such as meat, start with softer proteins such as fish, beans or lentils

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 full textured healthy diet. Gradually increase the texture and continue to add new foods in slowly.

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 3 small meals and 2 high protein snacks and remember to include 2 litres (8-10 glasses) of sugar free fluids each day.

Sample meal plan

Breakfast

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

Mid-Morning

Fruit , Tea / coffee
Cracker with low fat spreadable cheese / peanut butter/ boiled egg/ crab sticks

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

Mid afternoon

Tea / coffee
Fruit / low fat yoghurt/ 30g cheese/ 25g nuts

Main meal

Small serving of lean meat / fish / egg / beans / lentils / tofu / Quorn with a serving of vegetables or salad 1 tablespoon of potatoes / brown rice/ brown pasta / chapatti /

Dessert

Fruit / low fat yoghurt

Vitamin and Mineral Deficiencies

Remember 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, you are also likely to need:

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

Hair Loss

Hair loss is a common side effect of bariatric surgery and is usually as a result of an inadequate protein intake in the early stages post-surgery. To try to minimise this, aim for 60g of protein minimum daily including on the liquid stage of your diet and ensure you take your vitamin and mineral supplement.

Inadequate weight loss

The surgery changes your stomach, but will not change your psychological hunger (cravings). Foods of low nutritional value such as simple carbohydrate foods like chocolate, cakes, biscuits etc. require very little digestion. These foods are known as 'slider foods' and if you continue to eat these you will have an inadequate weight loss and even a weight gain. 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. For your surgery to be successful long term, you need to avoid 'slider foods'.

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/ourservices/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-recipefinder.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

Some examples of commercial protein Shakes available

UFit Protein Milkshake (310ml)

<u>Protein</u>: 22.4g <u>Carbs:</u> 10.7g <u>Energy:</u> 166kcals

Allergy: Milk – Lactose Free available Flavours: strawberry, iced coffee,

chocolate, banana, vanilla



Protein: 50.2g Carbs: 18.3g Energy: 336kcals Allergy: Milk

Flavours: vanilla, strawberry and

chocolate

(**5**00ml)

Huel (100g)

<u>Protein</u>: 29.5g <u>Carbs:</u> 37.1g Energy: 400kcals

Allergy: suitable for vegans

Includes: Fortified with vitamins and

minerals

Flavours: vanilla, berry, coffee, original

Optimum Nutrition Vanilla Yoghurt

Protein: 20.0g

Carbs: 7.8g - no added sugar

Smoothie Protein Powder

(35g in 200ml water)

Energy: 128kcals Allergy: Milk , Soy Flavours: vanilla









'For Goodness Shakes' protein shot (60mls)

Protein: 25g Carbs: 0.6g Energy: 101Kcal

Allergy: not vegetarian

Flavours: Pomegranate and coconut

Vega Clean Protein Vanilla (35g in 200mls water)

Protein: 25g Carbs: 2.2g Energy: 133Kcal

Flavours: Vanilla, Chocolate

Allergy: gluten and dairy free. Vegan

Asda protein water (500mls)

Protein: 30g Carbs: <0.5g Energy: 127Kcal

Flavours: Strawberry and pomegranate,

tropical

Allergy: lactose

PhD Protein Superfood Smoothie (130g sachet)

<u>Protein:</u> 20g <u>Carbs:</u> 5.5g <u>Energy</u>: 175Kcal

<u>Flavours</u>: Mango and banana <u>Allergy:</u> gluten, soya and dairy free

Optimum Nutrition Gold Standard 100% Whey Powder

(50g in 200mls water)

Protein: 34g Carbs: 5.5g Energy: 182Kcal

<u>Flavours:</u> Chocolate Mint, Banana Cream, Birthday Cake, Chocolate Peanut Butter, Cookies & Cream, Extreme Chocolate,

Allergy: Milk











MyProtein- Organic Whey Protein (25g in 200mls water)

Protein: 20g Carbs: 3.0g Energy: 102Kcal

Flavours: strawberry, banana,

unflavoured Allergy: Milk



Science in Sport Whey 20. 20g protein in a 78ml gel

Protein: 20.0g

Carbs: 2.0g -1g sugar

Kcal: 89

Allergy: Milk, Soy, gluten free

<u>Flavours</u>: chocolate mint, mango and passion fruit, caramel, peanut butter



Slimfast Vitality high protein (330mls)

<u>Protein:</u> 26g <u>Carbs:</u> 14g

Energy: 210kcals

<u>Allergy:</u> gluten and lactose free <u>Flavours:</u> Chocolate, Berry blast



Protein Weetabix Drink

(275mls)

Protein: 21g Energy: 211kcals Carbohydrate: 22g Allergy: milk, gluten

Flavours: strawberry and raspberry,

chocolate, vanilla



Asda Whey Box Vanilla protein

supplement

(20g serving added to food)

<u>Protein:</u> 15g <u>Energy</u>: 84kcals <u>Carbohydrate:</u> 2.5g

Allergy: milk

Flavours: vanilla, banana

