

Pre and post-operative diet for Bariatric Surgery



Pre-operative diet for bariatric surgery

Why do I need to follow a liver shrinkage diet before my bariatric surgery?

Your liver's job is to store extra energy from the sugars and fats you consume. If you eat a lot of high-calorie foods, your liver can become larger and firmer. This can make a stomach operation more difficult for your surgeon.

Following a special pre-surgery diet helps shrink and soften your liver. This gives your surgeon better access to your stomach, which can help make the operation safer. It also reduces the risk of complications like bleeding and leaks.

If you have **diabetes** and use **insulin**, it's very important to talk to your doctor before you start this diet. Your medication may need to be adjusted to prevent your blood sugar from becoming too low.

Follow for two weeks prior to the day of your surgery unless advised otherwise e.g. if your surgery was booked for the 14th of October you would start on the 1st of October

What is the diet?

The diet is low in calories, low in fat and carbohydrate with higher protein. It contains approximately 800kcal and 70g protein. You should follow it for 2 weeks before your surgery.

If your body mass index is greater than 45Kg/m² (ask your dietitian if you are not sure) you can increase to 1000kcal per day.

You can do this by adding in one extra protein food e.g. chicken fillet, dairy portion or a meal replacement drink.

Protein: 3 protein portions per day. One portion is 2 eggs, 75g of lean meat, 1 small fillet of fish or chicken, 2-3 slices of lean cooked meat, ½ tin tuna (in spring water not oil), 4 dessert spoon beans.

Dairy: 3 portions daily. 200mls of skimmed or semi skimmed milk or dairy alternative, 150g pot of low fat/diet yogurt, 30g (size of a matchbox) of low fat cheese

Fruit and Vegetables: 3 portions per day (maximum of 2 fruit) e.g. 1 apple or 1 pear, 3 dessert spoons of cooked vegetables, 1 cereal bowl of salad (balsamic vinegar no oil)

Carbohydrates: 2 portions per day. One portion is 1 Weetabix, 1 medium potato, 2 dessert spoons of cooked pasta or rice.

Fat: 1 portion e.g. a thin scraping of low fat spread or 2 teaspoons of vegetable oil in cooking

The meal plans below provide approximately 800kcal and 70g protein per day.

What else should I do?

- Due to the limited food choices in the diet it is important that you start taking a complete multivitamin and mineral every day. It is important that the brand contains everything from A to Z e.g. Centrum Complete, Sanatogen Gold, Boots A-Z.
- Meals should be eaten regularly three times a day.
- Meals should be eaten slowly; every bite should be chewed thoroughly so that a feeling of fullness is reached more quickly. This is also very important after surgery.
- Constipation may also become a problem as the diet is low in fibre. Drink plenty of water aim for 2 litres of fluids over the day. You may need to take a fibre supplement called fybogel.

Fluids

- All drinks should be sugar free with a carbohydrate content of zero.
- Sugar-free squash, 'diet' drinks such as diet coke, 'zero' versions of soft drinks, Slimline tonic (but remember that you cannot have fizzy drinks following your surgery).
- Black tea, black coffee, fruit teas (you can use milk from your allowance if you wish).

Healthy cooking tips

- Meals should be prepared by boiling, steaming, or dry frying.
- Remove the skin when eating chicken or meat as it is high in fat.
- Avoid alcohol as it is very high in 'empty calories' and usually increases the appetite.
- Avoid sweet and bakery products as they are high in sugar and fat.
- Avoid breaded meat as it absorbs a lot of fat in cooking.
- Avoid adding sugar to tea and coffee.
- Use semi or skimmed milk instead of full fat.
- Choose only whole-grain cereals.

chocolate)

Example 5:

(Alternative meal replacement plan).
2 meal replacement drinks plus one main meal (approximately 350-400 calories). Ensure meal replacement drinks are only 200- 250kcal when made up. 1 portion of fruit as a snack

Healthy snacks

- Boiled egg
- 2 lean slices of meat/a handful of lean cooked meat
- 1 sugar free jelly pot
- 1 small tin of tuna mixed with balsamic vinegar
- A handful of raw vegetables
- Small bowel of salad with balsamic vinegar or lemon juice

Sample Meal Plan

Example 1

Breakfast: 2 scrambled eggs made with reduced fat milk

Lunch: 2 small slices of bread with 3 slices of lean meat and small bowl of salad

Evening meal: 75g small chicken breast with 2 servings of vegetables

Snacks: 1 low fat yogurt and 1 sugar free jelly pot

Example 2:

Breakfast: 1 Weetabix with reduced fat milk

Lunch: 3 Ryvita crackers with cottage cheese (40g) and 3 slices lean ham

Evening meal: 140g Cod in a white sauce with 2 servings of vegetables

Snacks: Small tin of fruit in natural juice with natural yogurt and 1 boiled egg

Example 3:

Breakfast: small bowl of porridge made with semi skimmed milk, portion of fruit e.g. 1 banana or handful of berries

Lunch: Canned soup (e.g. Heinz Weight Watchers) or homemade soup (not cream based), 2 slices of bread, low fat spread or low fat mayonnaise thinly spread, 2 slices of turkey, lettuce, $\frac{1}{2}$ tomato, 3 slices of cucumber.

Dinner: Stir fried vegetables with soya sauce, garlic, onion with sliced lean meat e.g. (trim visible fat, drain fat from pan), fish or chicken.

Example 4:

(Alternative milk based plan)

1 pint of semi skimmed milk drank over the day as milk or in milky drinks (e.g. coffee unsweetened but not hot

Eating and drinking following surgery for obesity

Your surgeon will advise how long to stay on each stage post-surgery

You will progress through a number of stages following the surgery:

Day 0/Day 1 after surgery: Liquid diet

Day 2 after surgery: Soft^[i] high protein diet (Small meals and high protein liquids)

Day 3 and for four weeks after surgery: Soft high protein diet^[ii] - regular eating

One month after surgery and onwards:

Normal healthy eating^[iii]

It is important that this advice is followed to help the healing process and prevent any problems during the recovery phase.

1. Liquid

Day 0/Day 1 Post Bariatric Surgery: (see table at the end of this diet sheet)

LIQUID DIET

Approved Drinks & Supplements

You can have a high-protein, milk-based nutritional supplement called Cubitan. If you can't tolerate it, you can choose **milk** or another high-protein drink. Please discuss with the Dietitian in advance if you do not tolerate milk or dairy foods.

Always measure Cubitan and still water using the provided cup and jug. **Avoid drinking through a straw as this may bring in more air leading to excess gas.**

You must drink liquids very slowly, taking small sips. Start by drinking about 90-100 ml (half a cup) over 20 to 30 minutes, increasing the amount as you can tolerate it.

Do not consume drinks that contain alcohol, high sugar. Also, avoid all fizzy drinks and sparkling water. Limit caffeine initially to one cup of milky tea or coffee.

Soft diet

Soft-Purée (Initial Phase)

On Day 2 post op you will be offered soft food. This will include food that is natural puree consistency like yogurts or pureed chicken as well as naturally soft food like fish or beans.

Start with a very small portion of food, about **4-6 teaspoons**. Soft food is easily mashed with a fork, with soft lumps.

Breakfast

- 1 Weetabix with 100mls of milk
- Half bowl of porridge

Snack options

- A small tub of smooth yogurt or fromage frais
- Fruit smoothie
- Glass of milk

Lunch and Evening Meal

- 1 ramekin of soft/puree chicken or fish with gravy and mashed carrot and potato
- 100-200 ml of smooth soup (add skimmed milk powder for extra protein)
- Scrambled egg
- 1 ramekin of baked beans

Snacks

- You may need to eat small, high-protein snacks 4-6 times a day to meet your needs.

Important Eating Tips

- **Eat the protein part of your meal first.**
- **Sip liquids between meals.** Do not drink for 30 minutes before a meal and wait 30 minutes after.
- Aim for at least **1-1.5 litres of fluid** over the day.
- **Avoid alcohol and fizzy drinks**, and limit caffeine.
- **Listen to your body** and stop eating when you feel full. Do not eat beyond satisfaction.

Soft Diet for first four weeks

Soft foods should be easy to mash with a fork and can have soft lumps.

What to Eat:

- **All new foods** should be well-cooked, minced, or mashed. Stews and casseroles can be good options.
- **Breakfast:** Have $\frac{1}{2}$ to 1 Weetabix with protein milk, a tub of smooth yogurt with soft fruit, or a cup of cereal with high-protein milk.
- **Lunch:** Try an omelette with cheese, one egg scrambled, or a small bowl of smooth soup.
- **Evening Meal:** Small portions of mince, tender meat (like beef or chicken), or fish in a white sauce are good.

Snacks: Small amounts of soft fruit, hummus, peanut butter, sliced deli meat or soft cheese triangles are good options.

Protein is Key

Aim for **60-80 grams of protein** each day. To help reach this goal, you can boost your meals by adding:

High-protein milk (like Avonmore Protein Milk), Skimmed milk powder, Whey protein powder

Portion Sizes & Rules to Follow:

- Portions should be small, about the size of a small ramekin.
- Eat the protein part of your meal first.
- Chew your food very well until it's almost liquid before you swallow.
- Try only one small bite of any new food at a time.
- If you feel full, nauseous, or vomit, stop eating immediately.
- Do not drink for 30 minutes before a meal and wait 30 minutes after to drink.
- Aim for at least 1-1.5 litres of water or sugar-free drinks each day.

Foods to Avoid:

- Fibrous or tough meats like chops, steak, sausages, or breaded/battered fish and chicken.
- Stringy vegetables like celery, sweetcorn, cabbage and lettuce.
- Drinks with alcohol, caffeine, or fizzy soda.

Meal Ideas

Breakfast (5-15g protein)

- Three to four dessert spoons porridge/cereal (30g) made with milk or 1 Weetabix with milk.
- 50g increasing to 100g yogurt (standard or high protein depending on preference) topped with berries or pureed apple or pear. After four weeks can add in 1 dessert spoon of mixed nuts/seeds or muesli/granola for added protein and a crunchy texture.
- One egg boiled or poached. After the first month you may wish to add in $\frac{1}{2}$ to 1 slice of wholemeal/granary bread. You may wish to add tomatoes or $\frac{1}{2}$ tin of baked beans.

Lunch (15-20g protein)

- Slices of deli ham, cheese, or roast chicken.
- One to two egg omelette, with a dessert spoon of grated cheese. Add vegetables/meat of choice as you move away from the soft diet.
- Plus one portion of fruit (raspberries, watermelon, increasing to more textured fruit like apples/oranges after one month). If you are too full to have fruit with a main meal, keep it as one of your snacks.

Dinner (15-25g protein)

- 2 ounces (approximately 60g) cooked minced beef increasing to 4 ounces (120g) (12-25g protein)
- $\frac{1}{2}$ salmon darn (50g) increasing to one small salmon darn (100g) (10-25g protein)
- 1 medium slice of cooked chicken increasing to 2 medium slices cooked roast chicken (15-30g protein)
- $\frac{1}{2}$ chicken fillet (50g) to one small chicken fillet (100g) (12-26g)
- 100g tofu or lentils (10-20g protein)

Plus

Three heaped dessert spoons of cooked vegetables or a cup of salad. Choose soft vegetables in the first four weeks, e.g. cooked carrots, parsnips, butternut squash, turnip, broccoli, cauliflower.

After two to three months you may want to include some carbohydrate into your diet.

Examples: One medium sweet potato, 1-2 small boiled potatoes 2-3 dessert spoons of cooked pasta, small fistful of cooked rice (30g uncooked or 75g cooked),

one clenched fistful of noodles (30g uncooked or 160g cooked weight).

You may still need one to two small meals or snacks in addition to the above to help meet your protein and fibre needs.

2. Normal Diet

You can progress to a normal diet around **one month after surgery**. At this point, you should be aiming for **60-80g of protein** and up to **2 litres of fluid** each day.

Your portions will still be smaller than before, roughly the size of a side plate.

Keep in mind that some foods can be difficult to eat even on a normal diet, such as:

- White bread
- Fibrous or stringy vegetables (like green beans)
- Skins on fruit and vegetables
- Fatty or tough meats

If a food causes discomfort, leave it out for a few days or weeks before trying it again.

Troubleshooting

Nausea, vomiting, and constipation can occur after weight loss surgery, especially in the first few months. Here is what you should know and do to manage them.

Nausea & Vomiting

You should not be vomiting frequently after surgery but nausea and vomiting can happen if you are:

- **Eating too fast**
- **Drinking liquids while eating**
- **Not chewing your food well enough**
- **Eating more than your stomach can comfortably hold**

If you vomit for **more than 24 hours**, it is a serious issue that can lead to dehydration. If frequent vomiting becomes a problem, **contact your surgeon right away**.

Constipation

Constipation can occur if you are not drinking enough fluids.

To prevent it, be sure to:

- Take the prescribed laxative
- **Drink enough fluids** throughout the day
- **Add fibre to your diet** with foods like Weetabix, porridge, fruit, and vegetables
- **Try natural laxatives** like prune juice or flaxseeds/linseeds.

If constipation continues even after you've increased your fluid and fibre, please **discuss it with a member of the team**.

Multivitamins

After your surgery, your medical team will likely advise you to take several supplements to prevent nutritional deficiencies. It's important to take these exactly as prescribed.

- **Multivitamin:** Your surgeon will recommend a daily multivitamin, which covers a wide range of vitamins from A to Z.
- **Calcium and Vitamin D:** You will also need to take a separate calcium and Vitamin D supplement.
- **Iron:** You may be prescribed an additional iron supplement.
- **Vitamin B12:** You will be advised to get Vitamin B12 injections every three months.

Contact details

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Clinical Specialist

Dietitian

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Day 0/Day 1 Post-operative diet: LIQUID DIET

Time	Supplement	Tick	Water	Tick	Notes
8:00am	30mls Cubitan or milk		08:30 60ml water		
9:00am	30mls Cubitan or milk		09:30 60ml water		
10:00am	30mls Cubitan or milk		10:30 60ml water		
11:00am	30mls Cubitan or milk		11:30 60ml water		
12:00	30mls Cubitan or milk		12:30 60ml water		
1:00pm	30mls Cubitan or milk		1:30 60ml water		
2:00pm	30mls Cubitan or milk		2:30 60ml water		
3:00pm	30mls Cubitan or milk		3:30 60ml water		
4:00pm	30mls Cubitan or milk		4:30 60ml water		
5:00pm	30mls Cubitan or milk		5:30 60ml water		
6:00pm	30mls Cubitan or milk		6:30 60ml water		
7:00pm	30mls Cubitan or milk		7:30 60ml water		
8:00pm	30mls Cubitan or milk		8:30 60ml water		
9:00pm	30mls Cubitan or milk		9:30 60ml water		
10:00pm			30-60 ml water		
11:00pm			30-60ml water		

Day 2 Post-operative diet: Liquid and puree/soft diet

- If your surgery is on a Thursday, you can progress to a more regular eating pattern consisting of three meals and three snacks on Saturday.
- The food you eat needs to be soft to puree consistency, so as to aid swallowing without liquid.
- You can continue to take a nutritional supplement if needed (Cubitan).
 - In hospital, you will be given a menu card specifically designed for eating after bariatric surgery on day 1 post surgery. You can choose from these options. You don't have to finish the meal – 4-6 teaspoons is usually enough to feel satisfied.

Time	Meal/Snack/ Drink	Supplement/Cubitan/ Drink	Tick	Notes
8.00am	Breakfast	Breakfast Order from menu		
9.00am	Drink	Paper cup 90ml water		
9.30am	Drink	Paper cup 90ml water		
10.00am	Snack	Paper cup 60ml Cubitan or milk		
10.30am	Drink	Paper cup 90ml water		
11.00am	Drink	Paper cup 90ml water		
12.00	Lunch	Lunch Order as per menu		
1.00pm	Drink	Paper cup 90ml water		
2.00pm	Drink	Paper cup 90ml water		
3.00pm	Snack	Paper cup 60ml Cubitan or milk		
3.30pm	Drink	Paper cup 90ml water		
4-5pm	Tea	Tea Order as per menu		
5.30pm	Drink	60ml water		
6.30pm	Snack	60ml Cubitan or milk		
7.30pm	Drink	60ml water		
8.30pm	Snack	60ml Cubitan or milk		
9.30pm	Drink	60ml water		

Notes

