



**ST. VINCENT'S  
PRIVATE HOSPITAL**  
Elm Park

# 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?

One job of the liver is to store extra calories from sugar and fat that we get from food. Before surgery, it is helpful to shrink and soften the liver. If the liver is very large the surgery may be more difficult to perform. By shrinking the liver the surgeon has better access to your stomach and can help reduce the risk of post-operative complications such as bleeding and leakage.

If you have diabetes and are on insulin the physician will need to advise you of an adjustment to your medication before you start the diet.

*Follow for two weeks prior to the day of your surgery unless advised otherwise e.g. if your surgery was booked for 14.1.20 you would start the diet on 1.1.20*

## 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.

For a BMI > 45Kg/m<sup>2</sup> 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 springwater not oil), 4 tablespoons 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 tablespoons 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 tablespoons 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 mealplans below provides approximately 800kcal and 70g protein per day

## 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 serving of vegetables

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

## Example 2:

Breakfast: 1 Weetabix with reduced fat milk

Lunch: 3 Ryvitas 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, ½ 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 drunk over the day as milk or in milky drinks (e.g. coffee unsweetened but not hot chocolate)

Breakfast: 1 low fat yogurt

Lunch: 1 can of low fat soup with 2 slices of bread

Dinner: 1 chicken breast grilled no skin, 2 new potatoes, spinach and broccoli, instant gravy made up with water

### 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

### 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 (chewable or tablet), 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.
- 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 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.

## Healthy snacks

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

For further information contact the dietitian during office hours on

 087 715 4160

or email

 theresecoleman@svph.ie

# 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:** Puree<sup>i)</sup> high protein diet (Small puree meal and high protein liquids)

**Day 3 and up to 2-3 months after surgery:** Soft high protein diet<sup>ii)</sup> - regular eating

## 2 months after surgery and onwards:

Normal healthy eating<sup>iii)</sup>

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-operative diet:

#### LIQUID DIET

If you have surgery on a Thursday, you can start liquids as soon as possible - your doctor will advise you, this is normally on Thursday eve and Friday.

We use a nutritional supplement called Cubitan while you are in hospital to help you meet your nutritional and fluid requirements – it is a milk-based supplement containing carbohydrate, protein, fat, vitamins & minerals.

If you cannot tolerate Cubitan you can choose instead a milk e.g. Avonmore Protein Milk or another high protein drink.

Use the medicine cup & jug provided to carefully measure out the correct volume of Cubitan and water.

The water must be still – not sparkling and no fizzy drinks are allowed.

<sup>i)</sup> Level 4 consistency

<sup>ii)</sup> Level 5 to 6 consistency

<sup>iii)</sup> Level 7 consistency

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

Time	Supplement	Tick	Water	Tick	Notes
<b>8:00am</b>	30mls Cubitan or milk		08:30 60ml water		
<b>9:00am</b>	30mls Cubitan or milk		09:30 60ml water		
<b>10:00am</b>	30mls Cubitan or milk		10:30 60ml water		
<b>11:00am</b>	30mls Cubitan or milk		11:30 60ml water		
<b>12:00</b>	30mls Cubitan or milk		12:30 60ml water		
<b>1:00pm</b>	30mls Cubitan or milk		1:30 60ml water		
<b>2:00pm</b>	30mls Cubitan or milk		2:30 60ml water		
<b>3:00pm</b>	30mls Cubitan or milk		3:30 60ml water		
<b>4:00pm</b>	30mls Cubitan or milk		4:30 60ml water		
<b>5:00pm</b>	30mls Cubitan or milk		5:30 60ml water		
<b>6:00pm</b>	30mls Cubitan or milk		6:30 60ml water		
<b>7:00pm</b>	30mls Cubitan or milk		7:30 60ml water		
<b>8:00pm</b>	30mls Cubitan or milk		8:30 60ml water		
<b>9:00pm</b>	30mls Cubitan or milk		9:30 60ml water		
<b>10:00pm</b>			30-60 ml water		
<b>11:00pm</b>			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 puree to soft, so as to aid swallowing without liquid.
- You can continue to take a nutritional supplement if needed (Cubitan).
- In hospital, a bariatric menu card will be given 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 full.
- The following is the plan you must follow for the remainder of your time in the hospital:

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

In addition to approved clear liquids, you can also select from the following choices  
You will still need to drink slowly taking small sips and avoid drinking through a straw  
Sip liquid meals very slowly. Initially drink 90-100mls, or ½ cup, over 20 to 30 minutes increasing as tolerated.

Low-sugar, low-fat protein drink, Fat-free (skim) milk, Low-sugar soy milk, clear soups or broths, Sugar-free, fat-free yogurt drinks (no particles) thinned with fat free milk.

Nourishing drinks include, high protein milks (*Avonmore Protein Milk*), milky porridge, *Complan*, *Slimfast*, yogurt drinks.

Fortified Milk (Add 4 tablespoons of skim milk powder to 500ml skimmed milk and store in fridge)

Avoid drinks with alcohol, high sugar, caffeine, or fizzy drinks.

## 2. Puree to soft diet

Initially the food may be of a puree consistency and as you tolerate this you will be able to try soft food.

Foods naturally puree consistency include yogurts with no bits, Ready Brek, milky porridge, and fromage frais.

The portions are very small start with 4-6 teaspoons.

Most people can move onto soft diet in the early stages post-op however your surgeon or dietitian will guide you on this.

Aim for 60-80g protein each day – you may not be able to achieve this in the first few weeks but you should try to include protein sources were possible.

When making your food you can add protein by using high protein milk (e.g. Avonmore Protein Milk) or by adding skimmed milk powder (e.g. Tesco Dried Skimmed Milk Powder) or whey

protein powder (e.g Optimum Nutrition). You will need to use a blender to ensure food is smooth puree consistency.

## Pureed Diet Sample Meal Plan

### Breakfast

- ¼ to ½ Weetabix with protein or fortified milk OR
- 1 small tub diet yoghurt (smooth) or diet fromage frais OR
- 4-6 teaspoons of porridge or Ready Brek made up with protein or fortified milk

### Lunch

- 100-200mls of smooth soup (add skim milk powder to add more protein) OR
- scrambled egg OR
- 4-6 teaspoons pureed meat/chicken/fish with vegetables

### Evening meal

- 100-200ml smooth soup (add skim milk powder to add more protein) OR
- 4-6 teaspoons of pureed meat/chicken/fish with vegetables

Snacks you may need to eat little and often (4-6 times per day) at the start to meet your requirements with high protein drinks or foods in between main meals.

- Eat the protein portion first, followed by the fruit or vegetable portion
- Sip liquid between meals
- Do not drink for 30 minutes before meals, and wait 30 minutes afterwards to drink
- Aim for at least 1- 1.5litres of fluid over the day
- Avoid drinks with alcohol, or fizzy drinks (soft drinks), limit caffeine
- Listen to your body and stop when you feel satisfied. Be mindful not to eat beyond fullness

### 3. Soft diet

You will progress from puree to soft food in the first week after surgery, this will be guided by your surgeon or dietitian. Soft food is easily mashed with a fork, with soft lumps.

- All new foods should be soft cooked, minced or mashed (stews and casseroles can work well).
- Eat the protein portion first, followed by the fruit or vegetable portion
- Chew well so food is almost liquid before you swallow
- Try only one small bite of the new food and chew well
- If at any time you feel full, nauseated, or vomit, stop eating and rest
- Portions should still be small e.g a small ramekin
- Aim for at least 1- 1.5litres of water or other sugar-free beverage each day
- Do not drink for 30 minutes before meals, and wait 30 minutes afterwards to drink
- Avoid drinks with alcohol, caffeine, or fizzy drinks (soft drinks)
- Avoid any fibrous meats, e.g. chops, steak, battered/ crumbed fish/chicken, rashers and sausages
- Avoid any stringy vegetables e.g. celery, sweetcorn, peas

### Soft Diet Sample Meal Plan

#### Breakfast

- ½ to 1 Weetabix with protein or fortified milk OR
- 1 tub diet yoghurt (smooth) or diet fromage frais with soft fruit e.g banana OR
- 1 cup of cereal with high protein milk

#### Lunch

- 1 egg + 30g cheese as omelette OR
- 1 X scrambled egg , mashed avocado, ½ slice of bread OR
- Small bowl of smooth soup (add skim milk powder to add more protein or soft meat e.g. shredded chicken)

### Evening meal

- Mince, e.g. bolognaise made from 50g mince meat OR
- Slowly cooked tender meat e.g. lamb, chicken, approximately 50g OR
- Fish in white sauce x ½ fillet (50g) (watch for bones)
- With a portion of soft vegetables 1-2 tablespoons
- Keep carbohydrate portion to last e.g. 1-2 tablespoons of well cooked pasta or 1 potato

Snacks 2-3 as needed: high protein drink or portion of soft fruit or 1 tablespoon of hummus or peanut butter, babybel cheese or yogurt.

### 4. Normal diet

After 8 weeks you should be ready to progress to normal diet. Aiming for 60-80g protein per day and up to 2 litres of fluid per day.

Portions will still be small, aiming for the size of a size plate.

There are some foods that people often report difficulty with white bread, fibrous or stringy vegetables e.g green beans, mange-tout, skin or plinth on fruit and vegetables, fatty or stringy meat.

If you find a food causes you discomfort or difficulty you may need to leave it for a while and try again in a few days or weeks.

## Troubleshooting

Nausea and vomiting can be common complications occurring in the first few months after weight loss surgery.

They may occur after eating too fast, drinking liquids while eating, not chewing well enough, or eating more than your stomach can comfortably hold.

Vomiting that continues for more than 24 hours must be taken seriously, since vomiting can lead to severe dehydration and electrolyte imbalance.

Notify your surgeon if frequent vomiting becomes a problem.

Constipation may also occur post-surgery especially if you are not adequately hydrated. Drinking enough fluids is important to maintain a regular bowel pattern. Natural laxatives such as prune juice can help as they provide soluble fibre. Foods like Weetabix, porridge, fruit and vegetables provide fibre which can help prevent constipation. If constipation remains a problem despite increasing your fluid and fibre, please discuss with your surgeon.

## Dumping syndrome

Dumping syndrome occurs following weight loss surgery, in some but not all cases. It is more commonly seen after gastric bypass surgery, typically in the first year of surgery. It can occur if too much fat, sugar or alcohol is 'dumped' into the intestine at any one time. The symptoms include nausea, vomiting, diarrhoea, sweating, feeling faint and weak. Dumping syndrome can sometimes result in low blood sugar.

Other signs and symptoms of dumping syndrome can include:

- Sweating, flushing, dizziness or light-headedness, weakness
- Rapid heart rate

If you develop dumping syndrome, the symptoms can be minimised or avoided if you avoid foods high in fat and sugar. Sometimes medical treatment is needed to help with symptoms. If dumping syndrome occurs then contact a member of the multidisciplinary team who can provide additional advice.

## Multivitamins

Your surgeon will advise a complete A-Z multivitamin product i.e. Centrum/Sanatogen/Boots etc. and a calcium and Vitamin D supplement. Please take these as prescribed to help prevent nutritional deficiencies. You may also be prescribed additional iron. You will be advised to take Vitamin B12 injections every three months post-surgery.

## Contact details

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