

Nutritional Information

Pre-operative Diet

Many people who are overweight have an enlarged liver. This can make surgery more difficult and increase the risk of complications. For this reason it is essential for you to follow a strict calorie and carbohydrate controlled diet for 14 days before your operation. The diet is designed to shrink the size of the liver making surgery easier and safer.

Following this diet will encourage the body to use up its stores of glycogen (a form of stored sugar in the liver and muscles). This causes the liver to shrink rapidly and you will notice that you lose a lot of weight during this diet. A large amount of this weight will be water.

For the diet to be successful in reducing the size of your liver, you need to stick to the diet plan for the amount of time specified by the specialist team. We understand there may be a temptation to have special/larger meal before your surgery. However, if you do this you risk not being able to have your operation.

During Your Diet

- **Keep hydrated:** Drink a minimum of 2 litres of fluid a day. This includes drinks of any type, but remember these count in your recommended calorie intake so go for low calorie options e.g. sugar free squash, water, tea, herbal teas, low calorie flavoured water. **Avoid alcohol.**
- **Take a vitamin and mineral tablet** every day. You will need chewable/liquid versions for 6 weeks after your operation so you may wish to start these now.

Suitable preparations include: Centrum fruity chewables, Superdrug/own brand chewable multivitamins AND minerals, or Feroglobin liquid.

What does the diet involve?

Choose one of these options:

Option 1- Food only diet

	Portions per day	Examples of 1 portion
Protein	3	<ul style="list-style-type: none"> - Cooked lean meat (100g) e.g. chicken breast with no skin - 100g of cooked white fish or tinned tuna (in brine/spring water) - 2 medium eggs - Tofu (80g) - Quorn Pieces/mince (150g)
Vegetables *Does not include potatoes, yams, lentils/pulses, baked beans	5	<ul style="list-style-type: none"> <li style="width: 50%;">- Asparagus <li style="width: 50%;">- Leeks <li style="width: 50%;">- Spinach <li style="width: 50%;">- Cress <li style="width: 50%;">- Broccoli <li style="width: 50%;">- Lettuce <li style="width: 50%;">- Watercress <li style="width: 50%;">- Green beans <li style="width: 50%;">- Cabbage <li style="width: 50%;">- Marrow <li style="width: 50%;">- Onions <li style="width: 50%;">- Aubergine <li style="width: 50%;">- Cauliflower <li style="width: 50%;">- Mushrooms <li style="width: 50%;">- Carrots <li style="width: 50%;">- Tomatoes <li style="width: 50%;">- Courgettes <li style="width: 50%;">- Okra <li style="width: 50%;">- Pepper <li style="width: 50%;">- Pumpkin <li style="width: 50%;">- Cucumber <li style="width: 50%;">- Brussels sprouts <li style="width: 50%;">- Artichoke <li style="width: 50%;">- Radish <li style="width: 50%;">- Curly kale <li style="width: 50%;">- Swede <li style="width: 50%;">- Celery <li style="width: 50%;">- Peas
Fruit 1 portion is approximately palm size.	2	<ul style="list-style-type: none"> - 1 medium sized piece of fruit e.g. apple, pear, orange - 2 small pieces of fruit e.g. Satsuma, apricot, plum - 1 palm of loose fruit e.g. grapes, cherries, strawberries.
Dairy	2	<ul style="list-style-type: none"> - 200ml of skimmed/semi-skimmed milk - 1 small pot of low fat, low sugar Yoghurt (diet range e.g. Muller light, Shape Zero, other lite versions) - Soya/non-dairy milk fortified with calcium

It is important that you follow the exact recommendations listed above. This is designed to significantly reduce the calorie and carbohydrate content of your diet, and provide valuable nutrients needed for general health. If for any reason you find

yourself unable to follow any part of the diet, please ensure you discuss this with your dietitian. The following plan will provide approximately 800 calories a day.

Example Meal Plan

Breakfast

2 medium boiled egg + Mushrooms and tomatoes

Mid-Morning

1 medium apple

200ml glass of semi-skimmed milk

Lunch

Bowl of salad (cucumber, lettuce, peppers, tomatoes) with balsamic vinegar with small lean chicken breast or protein choice.

or

Chicken and vegetable soup/ stew

Mid-Afternoon

1 palm of fresh strawberries and yoghurt

Evening meal

Grilled fish/ meat with stir fried vegetables

To add extra flavor add herbs, spices and stock to your meals. There are endless recipes out there.

Do not add any fats to the diet e.g. do not cook or add oils, butter or margarine.

All drinks should be sugar-free with a carbohydrate content of virtually zero.

Examples include:

- 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 (you can use milk from your allowance if you wish)
- Bovril / marmite / stock cubes – these can be used to make a warm clear drink

Option 2- Using Meal Replacements Alone

This approach consists of mainly liquid formulas supplying around 800 calories (kcal) per day. There are many companies that make these liquid formulas which contain a balance of nutrients that your body needs. Some companies provide options of sweet and savory products, which consist mainly of shakes and soups.

Depending on the calorie content of the product, you will need 3-4 per day. It is important you check the label and do not exceed 800kcal in total.

Here are some examples you can choose from:

- The Cambridge Pro800 plan: available when supported by a healthcare professional. Total cost £74 + postage for 2 week supply.
- Slim-fast- bottled shakes: Individually around £1.40- £1.55 per bottle. And can be purchased in packs of 4-6 in some shops which is less expensive.
- Supermarket own brands: e.g. Tesco Ultralim meal replacement. It costs £0.40 for 1 portion.

[Product information last checked 20/03/14]

Be aware that some meal replacement products may contain too much calories. You will need to discuss this with your dietitian.

Option 3- Using both Food and Meal Replacements

It is possible to plan a diet based on food and meal replacements. A typical day may look like this:

Meal	Food/Meal Replacement	Calories (kcal) per Portion
Breakfast	Meal Replacement Shake	200-250
Lunch	Meal Replacement Shake	200-250
Evening meal	Evening meal (please refer to food plan)	250-350
Snack	Vegetable sticks	20-50

If you have Diabetes

If you have diabetes and treated with tablet medication and/or insulin it is likely that these medications will need changing. This diet before surgery will contain very little carbohydrate and can increase the risk of hypoglycaemia. Please discuss this with you diabetes team or GP.