

Liver Reduction Diet (LRD)

As part of your preparation for surgery, your surgeon feels it would be beneficial for you to follow a diet very low in calories, carbohydrates (bread, pasta, rice etc.) and fat for 2-3 weeks prior to your operation. This is known as the Liver Reduction Diet or LRD.

Aims of the liver reduction diet

Your gallbladder sits attached to the underside of the liver and in order to remove it your surgeons will need to manipulate the liver in order to reach the gallbladder and see clearly the structures around it. Often during surgery the liver can be stiff and swollen which means it doesn't move easily and part of it can tear or crack, leading to bleeding. This happens because the liver is one of the places the body stores energy, in the form of a sugar called glycogen, which binds lots of water inside the liver. When glycogen is removed 4 times as much water will also be lost. This makes the liver softer and safer to handle. Much of the weight lost on this diet is water. As a result you may become dehydrated so you need to drink more often than usual.

What if I don't do it?

Before surgery, it is essential you follow a strict calorie controlled diet for two or three weeks before your surgery as instructed by your surgeon. It is a very restricted diet, but following it may reduce the risk of complications associated with surgery, and improves the chances that the operation can be done by keyhole (laparoscopic) surgery. If your liver is too big there is a risk that your surgeons have to complete the procedure using a large incision (open surgery) in your abdomen or that your operation is abandoned completely if there are fears about your safety.

The liver can replace its stores very quickly, so it is important that you follow the diet strictly. A single carbohydrate-rich meal shortly before your operation can undo all your good efforts and lead to difficulties during surgery.

In addition to the diet remember to, avoid alcohol, stop smoking, and keep active e.g. walking 1-3 miles a day or swimming. Even gardening is an excellent exercise.

This diet is only recommended for two-three weeks before surgery and is not to be followed afterwards.

Liver Reduction Diet is not advised for:

Adolescents, pregnant or breast-feeding women, people with unstable heart or blood vessel disease including if you have had strokes, kidney problems, advanced liver disease or acute mental health and eating disorders. If in doubt, please contact your surgical team.

Advice for diabetic patients

If your diabetes is controlled by diet alone, you will not need to worry about your blood sugars becoming too low.

If you have diabetes and are treated with insulin or tablets you may need to adjust your medication. Check your blood sugar levels more regularly to make sure that you do not experience 'hypos' (low blood glucose levels less than 4 mmol/L). If you do experience a hypo, treat as per guidance (see leaflet - PS 13 039 002) and contact the diabetes specialist nurses or your GP surgery to review your diabetes medications

To contact the hospital Diabetes Specialist Nurse please call 01392 411611 between 9am and 1pm weekdays ask the auto-directory for 'operator' and then ask for the diabetes nurse on call when connected, who will be able to advise you about your medication.

What does the diet involve?

There are two different LRDs available. You should choose one and stick to it for the 2 weeks.

1. Soup and Yogurt Diet

2. Meal replacement Shake plan: Using only shakes Slimfast®

Option 1: Soup and Yogurt Diet

With this option you are allowed:

- 400 calories of soup per day. For example, 4 x cans of Weight Watchers® soup (under 100 calories per can) Or 2 x 200 calorie portions soup per day (you must read the label).

and

- 400 calories of yogurt per day. For example, 4 x low calorie yoghurts e.g. Muller Light® or Supermarket own brand low fat, low sugar varieties (under 100 calories per pot).

and

- 200mls skimmed or semi-skimmed milk for additional drinks.
- Take a complete A-Z multivitamin and mineral tablet every day.

Option 2: A Meal Replacement Diet

- 4 meal replacement shakes such as Slimfast® per day (2 x level scoops of powder made up with 250mls skimmed milk as per instructions on tin) not readymade shakes, snacks or meal bars

and

- 200mls skimmed or semi-skimmed milk for additional drinks

How much fluid can I have in total for all options?

- The remainder of the milk allowance. Plus calorie free drinks e.g. tea, herbal tea, coffee, water, zero sugar flavoured water / no added sugar squash to make up at least 2 litres of fluid.
- Spread drinks and food evenly throughout the day. Do not save everything for later in the day.
- Drink at least 2 litres of fluid every day and drink more in hot weather.

What if I am unable to follow this diet?

If you find a liquid diet is not an option for you or are unable to follow either options due to dietary requirements (dairy free, vegan etc), please ask your Consultant to refer you to the Dietitians, who will be able to advise you on an appropriate liver reducing diet to suit your needs.

How will I feel while I am on this diet?

It's quite rare that people can't manage this diet for a couple of weeks, but some people can get hungry or tired. This is best managed by spreading the food allowance across the day. It may be worse if you store up your allowance for one big meal.

You may also experience other symptoms such as thirst, and a slightly metallic taste in the mouth as your body gets rid of the by-products released by breaking down energy stores.

On the other hand, you should find that your appetite is suppressed after the first 3 - 4 days, meaning that you feel much less hungry than you would have expected. Some people report feeling a little light-headed in the first few days. Just make sure you are sticking to the plan and drinking plenty. This will pass.

Frequently asked questions

Are sweeteners ok to have on this diet?

Yes. Choose tablet sweeteners such as Silverspoon®, Sweetex®, Hermestas® or Truvia® as these do not contain any calories.

Can I have anything else on this diet such as fruit or salad?

No. This is a calorie controlled diet which must not exceed 800 - 1000 calories per day.

I am getting constipated. What shall I do?

If you are feeling constipated you should see your local Pharmacist for a gentle laxative to help soften your stool such as Fybogel®. Take one sachet mixed with water twice per day as instructed. Alternatively, you can try docusate sodium to help keep your bowel movements regular. It is known by the brand names Dulcoease® or Dioctyl®. Take one capsule three times a day. Do not take more than 5 capsules in a day.

I have lost weight on this diet and would like to continue to lose weight after I recover from my operation. Can I continue to follow it?

No, this very low calorie diet is only intended to be followed for 2 - 3 weeks prior to your operation date for medical reasons.

What should I eat following surgery?

To ensure that your body is able to heal and recover from the surgery, it is recommended that following the surgery you go back to following a normal healthy diet. This should consist of a range of carbohydrates (starchy foods such as bread, pasta, potatoes and rice), protein (meats, fish, eggs, meat alternatives, pulses) and at least 5 portions of fruit and vegetables a day. For more information, please go to

- https://www.bda.uk.com/foodfacts/healthy_eating

If you would further advice on how to lose weight safely in the long term, you might find the following links useful:

- <https://www.nhs.uk/change4life>
- www.nhs.uk/Oneyou
- www.nhs.uk/Livewell/weight-loss-guide

If you feel that your low mood or anxiety is impacting on your weight/eating please

consider speaking to the Talk works service on: **0800 0730741** or website:

- <http://www.devonpartnership.nhs.uk/DAS.das.0.html>

Alternative self-help guides: www.ntw.nhs.uk/pic/selfhelp

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