

Diet and liver disease



BRITISH
LIVER
TRUST

Fighting liver disease

Diet and liver disease

The British Liver Trust works to:

- support people with all kinds of liver disease
- improve knowledge and understanding of the liver and related health issues
- encourage and fund research into new treatments
- lobby for better services.

All our publications are reviewed by medical specialists and people living with liver disease. Our website provides information on all forms of adult liver disease and our Helpline gives advice and support on general and medical enquiries. Call us on **0870 770 8028** or visit **www.britishlivertrust.org.uk**

Contents

Your liver and the food you eat	4
Healthy eating	7
Keeping to a healthy weight.....	9
What about alcohol?	10
Coping with eating difficulties.....	12
Liver disease and diet problems.....	15
Enjoy what you eat	27
Useful words	28
Who else can help	29
Further information.....	29

The liver

Your liver is your body's 'factory', carrying out hundreds of jobs that are vital to life. It is very tough and able to continue to function when most of it is damaged. It can also repair itself - even renewing large sections.

Your liver has around 500 different functions. Importantly, it:

- fights infections and disease
- destroys and deals with poisons and drugs
- filters and cleans the blood
- controls the amount of cholesterol
- produces and maintains the balance of hormones
- produces chemicals - enzymes and other proteins - responsible for most of the chemical reactions in the body, for example, blood clotting and repairing tissue
- processes food once it has been digested
- produces bile to help break down food in the gut
- stores energy that can be used rapidly when the body needs it most
- stores sugars, vitamins and minerals, including iron
- repairs damage and renews itself.

This leaflet gives practical advice about food and diet for people who have liver disease.

Many people with liver problems can manage their condition by keeping to a sensible diet. However, others may need specialist advice. Because of this, it is important that you talk to your doctor as well as reading this information.

If you have questions about your diet, but cannot find the answers here, or if you need further help, please ask to see a Registered Dietician. If you have already been given dietary advice you should not make changes without first talking to your doctor or dietician.

At the end of this leaflet there is a list of organisations that can give further advice. The British Liver Trust has a range of publications covering specific areas of liver disease and these may also be helpful.

Your liver and the food you eat

You need food to power your body, giving it energy and the material it needs to grow and repair itself. When you eat food it is broken down in your stomach and intestine (gut) and three main nutrients are extracted:

- carbohydrates
- fat
- protein.

These nutrients are then absorbed into the bloodstream and carried to your liver. Here they are either stored or changed in such a way that your

body can use them at once. At the same time your liver is also working to stop poisons and toxins from harming the body.

If you have a liver problem then your liver may not be able to do these jobs as efficiently as it should.

Food for energy

Carbohydrate

Carbohydrate comes from starch and sugar and is found in bread, potatoes, rice, pasta, cereals, fruit and sweets. Carbohydrate is broken down in the liver to glucose, a form of sugar, which is used to make energy.

Any glucose not used immediately for energy is stored as glycogen in the liver and in the muscles. When your body needs extra energy – when running for a bus, for example – the glycogen is quickly converted back to glucose.

As well as storing glycogen, the liver helps control the level of glucose in the blood.

Fat

Fat comes from butter, cheese, oil, animal fat and from many 'hidden' sources, for example, biscuits, pastry, crisps and cakes.

Fat can be used as a long-term energy store. It also provides the fat-soluble vitamins A, D, E and K and essential fatty acids.

Food for repair and growth

Protein

Protein comes from foods such as meat, fish, eggs, nuts, pulses and dairy products. It is made up of units called amino acids and when these reach the liver they provide building blocks to make cells and tissues throughout the body.

Vitamins and minerals

Your body carries out millions of chemical reactions every day. To do this it needs a mix of vitamins and minerals in addition to the essential nutrients, carbohydrate, fat and protein.

Most people can get all the vitamins and minerals they need by choosing a variety of foods from a normal, healthy, well-balanced diet (see Healthy eating on page 7). However, people with certain types of liver disease may need extra vitamins.

If you are worried that your diet is short of vitamins, your doctor or dietician may prescribe vitamins or suggest you buy multivitamin tablets from your chemist. Vitamins and minerals sold as separate supplements are not recommended unless advised by your doctor or dietician.

Calories

In the same way that we measure distance in centimetres (cm), the energy in food is measured in units of calories (kcal). For example an apple will have about 50 calories and a Mars chocolate bar will have about 300 calories.

As a basic rule of thumb, healthy adult men are advised to eat about 2,500 calories every day and women 2,000 a day.

Healthy eating

A well-balanced diet is one that is low in fat, sugar and salt and high in fibre. (Fibre is the part of fruit, vegetables or cereal that passes through your body undigested and helps to prevent constipation.) Your diet should also contain enough protein and a wide range of vitamins and minerals.

Healthy eating means getting the right balance between different foods. For many people this means a change towards eating more fruit, vegetables and higher fibre starchy foods.

There are five food groups, each one providing a different combination of the three essential nutrients – carbohydrates, fat and protein – as well as vitamins and minerals.

1. Bread, cereal, potatoes, rice, pasta, noodles, chapatti (starchy carbohydrates – good for slow release energy)

Choose one of these foods at each meal – they release energy slowly into the bloodstream. High-fibre versions will keep you feeling fuller for longer.

The only fat we get from these foods is the fat we eat with them, such as butter on bread or potatoes, full cream milk on cereal. Watch out for these added fats – opt for low fat versions instead.

2. Fruit and vegetables (high in fibre, vitamins and minerals)

Aim for five portions a day. Fruit and vegetables provide essential vitamins and fibre, helping to

protect the body against heart disease and some forms of cancer. A 'portion' could be one of the following:

- one glass of orange juice
- two tablespoons of vegetables – raw, cooked, frozen or canned
- one dessert bowl of salad
- one apple, orange, banana or similar sized fruit
- two small fruits – plums, apricots
- a small handful of grapes or cherries
- a half-tin of tinned fruit in natural juice or dessert bowl of stewed fruit.

3. Milk, yoghurt, eggs and cheese (high in protein, good for calcium for healthy bones and teeth)

You can choose low-fat versions to help you keep to a healthy weight.

4. Meat, poultry, fish, nuts, pulses, beans, tofu, cheese (high in protein)

All these foods provide protein. Beans and pulses also provide useful fibre. Try to have two helpings of protein-rich foods a day.

Red meat is higher in fat than chicken and fish but is a very good source of iron so should be included in the diet at least twice a week.

5. High-calorie foods, such as fried and sugary foods (high in fat and sugar)

These foods include cakes, biscuits, chocolate, crisps, fried foods and pastries which are high in both fat and calories. Where possible choose low-fat, low-calorie versions or enjoy these occasionally as a treat.

It is important to choose a variety of foods from the first four groups every day to get a wide range of nutrients. For most people, food from the fifth group should only be eaten as treats. If you are underweight and need more calories, you may be advised to eat more of these foods.

Keeping to a healthy weight

To sustain a healthy weight, you need to balance the amount of food you eat with the energy you need. If you eat fewer calories than your body needs (especially if you are physically active) you will lose weight. If you eat more than you need, your weight will increase.

The amount of energy we need differs according to our sex, age, weight and the amount of physical activity we take. For example, a small elderly woman will need less food than a young, active man.

If you have been ill or have lost a lot of weight you may not feel like eating and keeping to a well-balanced diet may be difficult. Try to keep eating as much as you can and, if necessary, ask your doctor or dietician for advice.

What about alcohol?

Alcohol is a drug and large amounts of it are poisonous (toxic) to the liver. The liver protects your body from the damaging effects of alcohol by breaking it down into less harmful substances.

People with any liver condition should be very cautious about drinking alcohol, as there is strong evidence that it will make their condition worse.

Drinking advice will vary from person to person, even with the same condition. Many people find they can no longer tolerate alcohol; others drink a little on special occasions. If your liver disease has been caused by alcohol, then you should not drink.

If you are unsure whether you should drink, talk to your doctor.

Healthy drinking

Alcohol is a toxin (or poison) that is usually dealt with by the liver.

Drinking too much alcohol over a long period harms the liver and makes it very fatty, with the liver cells becoming bloated and unable to work properly. This results in swelling and inflammation of the liver – known as alcoholic hepatitis or alcoholic steatohepatitis – and can lead to serious scarring, known as cirrhosis, which can ultimately lead to liver cancer. It can also cause bleeding from the stomach which requires emergency hospitalisation.

How much alcohol is safe?

Everyone reacts to alcohol in a different way, but the government recommends that adult men should drink no more than 21 units of alcohol in a week and adult women, no more than 14. These units should be spread over the week:

- men should not drink more than 3 to 4 units a day
- women should not drink more than 2 to 3 units a day
- everyone should have at least two alcohol free days every week.

Units have been used for 25 years in the UK to describe amounts of alcohol. In the past, a unit could be identified as a drink – one unit (8 grams of pure alcohol) was a measure of spirits, half a pint of beer or a glass of wine. However, both the alcohol content (abv) of drinks and the standard measures of drinks served have increased over time. Spirits used to be served in 25ml quantities – now it is often 35ml; wine used to be served in 125ml quantities – today it is usually 175ml or 250ml glasses; the strength of lager used to be 3.5% abv – now it is commonly 5% abv.

The abv (shown on the bottle, box or can) tells you how many units there are in a litre, i.e. 6% abv means there are 6 units in a litre. If you drink half a litre (500ml) – just under a pint – of beer of this strength then you have had 3 units.

Calculating units

An accurate way of calculating how many units you are drinking is to multiply the abv figure by the size of your drink.

For example, a typical can of beer these days is 440ml, at 5% abv strength. Therefore: $440 \times 5 = 2,200$; divide this by 1,000 = 2.2 units.

You can use this formula to work out other drinks:

- a standard glass of wine (175ml) at 12% abv is 2.1 units and a large 250ml glass is 3 units
- one measure 35ml of spirits (40% abv) is 1.4 units
- a pint of low strength (3.5 - 4% abv) beer or lager is 2.3 units
- a pint of regular cider (alcohol 5% abv) is 3.4 units
- a standard measure of port or sherry (50ml) is 1 unit.

Coping with eating difficulties

Some people find eating a well-balanced diet difficult, especially if they have been seriously ill.

Two common reasons for this are:

- loss of appetite
- feeling sick (nausea)

However, it is important to eat as well as possible. The following tips may help.

Loss of appetite

- Eat small but frequent meals – little and often.
- Nutritious snacks may be better than one big meal.
- Try to eat something every two hours, however small.
- Tempt yourself with foods you like, you don't have to have a 'proper meal'; snacks are often easier to eat.
- Don't force yourself to eat food you don't like.
- Try to relax before and after you eat.
- Take your time over eating – chew well and breathe steadily.
- If you don't feel like solid food, try a nourishing drink.

Nourishing drinks include homemade milkshakes and products such as Build Up, Complan, Recovery and Nourishment. These are available at most chemists. It is a good idea to check with your doctor or dietician first to see if they are suitable for you. Nutritious homemade milkshakes can include full-fat milk, honey, banana or puréed fruit and a little BuildUp or Complan. You can take these drinks between meals – this is especially helpful if you are only eating small amounts. Your doctor or dietician may prescribe other ready-made supplements if you have been ill or malnourished.

Nausea

- If some smells make you feel sick, try a breath of fresh air before you eat.
- Keep your mouth fresh by brushing your teeth, using a mouthwash or sucking mints.
- Don't let yourself get too hungry – hunger makes nausea worse.
- Try to eat something every two hours, even if it's only a small amount.
- Cold snacks may be easier to cope with than a hot main meal, as they do not smell. Likewise, dry foods can be easier to face, so nibbling on crackers or plain biscuits can help reduce nausea.
- It is not essential to have a 'proper meal'; small snacks can be just as nutritious.
- Is there a pattern? Do you always feel sick at the same time of day? If so, try eating at other times.
- Avoid eating when you are very tired; rest and relax first.
- If cooking makes the problem worse, try using ready-made meals or sandwiches.
- Try sipping cold drinks slowly through a straw.
- High-calorie and protein supplements may be a good idea if you find you are losing weight.

If you feel sick for more than a few days, or if you start being sick (vomiting), then talk to your doctor.

Liver disease and diet problems

This section gives advice on diet for people with particular liver problems. We only have space here to cover some of the information that is available. You may have other questions or worries about your particular condition and the best person to talk to is your doctor or dietician. If you have already been advised to follow a special diet it is essential to talk to your doctor or dietician before making any changes.

The liver conditions that are covered in the following pages are:

- acute viral hepatitis
- chronic viral hepatitis
- autoimmune hepatitis
- primary biliary cirrhosis
- primary sclerosing cholangitis
- fatty liver
- cirrhosis

Acute viral hepatitis

If you have a short-term (acute) hepatitis infection caused by a virus – like hepatitis A, for example – you may actually feel quite well and should try to eat a normal diet. However, some people may need extra nutrition to prevent unplanned weight loss and may benefit from a high calorie and protein diet. A dietician can advise on this.

If you develop nausea and vomiting, which make eating difficult, then the advice given under 'Coping with eating difficulties' earlier in this leaflet may help.

Chronic viral hepatitis

If you have a long-term hepatitis infection (when infection lasts longer than six months – sometimes coming and going) caused by a virus – hepatitis B or C, for example – you can eat a normal, well-balanced diet. You should not need to change what you eat unless you have problems with poor appetite and unintended weight loss.

A poor appetite, nausea and vomiting are unpleasant but these symptoms only cause a nutritional problem if they last longer than a few days or if you are continuing to lose weight. In this case you should consult your doctor.

Autoimmune hepatitis

Some people who are prescribed steroids for autoimmune hepatitis may find their appetite increases and that they gradually gain weight. If this happens, it is still important to eat a varied and well-balanced diet. However, if you are gaining too much weight you should try to reduce calorie-rich foods – including sugar, sweets, cakes, biscuits, fried food, pasties and pies, crisps and chocolate – use low-fat versions instead and fill up on fruit and vegetables.

If weight gain is a problem, your doctor may suggest specialist help from a dietician.

Primary biliary cirrhosis and primary sclerosing cholangitis

If you have primary biliary cirrhosis (PBC) or primary sclerosing cholangitis (PSC) you may need to change your diet as the way you digest fats may be altered.

In order to digest fat we need bile. This is a yellowish acid made in the liver and stored in a pear-shaped bag called the gallbladder. It is squirted into the small intestine where it acts as a detergent, breaking fat into tiny droplets so it can be absorbed by the body.

With PBC and PSC the flow of bile into the gut may be reduced, particularly if you are jaundiced, so you may find you cannot tolerate the same amount of fat as normal.

In this situation you develop a type of diarrhoea, known as steatorrhoea, which causes bulky, pale faeces/stools that are difficult to flush away. It can cause nausea and a sick, bloated feeling. If this happens, you may find that eating less fat in the diet will help to reduce the problems and symptoms of this fatty diarrhoea.

However, fat is essential – it contains the fat-soluble vitamins A, D, E and K, as well as essential fatty acids – and should not be cut out of your diet completely without proper advice from a dietician.

People vary in the amount of fat they can tolerate so this does not mean you will necessarily need to eat a strict, low-fat diet. Most people find they are able to work out how much fat they can take by trial and error by reducing amounts of the higher fat foods. Improvement in bowel habit shows that your body is tolerating the amount of fat you are eating. Stools will become less frequent, darker and easier to flush away.

If you are reducing fat in your diet and do not need to lose weight, top up calories with snacks between meals, for example, toast, crackers, crumpets or tea-cakes. Your dietician can help you with this.

Cutting down on fat

If you want to cut down on the fat you eat you need to avoid 'hidden' fats as well as the obvious ones you can see in meat and greasy foods. The list below gives examples of high-fat foods and ideas for alternatives.

- Butter, margarine, lard, dripping – try using low-fat spreads.
- Cream and full-cream milk – substitute half-fat versions. There is as much calcium (needed for healthy bones) in half-fat or skimmed as there is in full-cream milk.
- Cheese – you may be able to tolerate small amounts of normal cheese, or try lower-fat hard cheese. Try reduced-fat spreads and cottage cheese.
- All kinds of cooking oil including olive oil, sunflower and vegetable oil – use these sparingly.
- Fatty meats, such as duck and belly pork – eat more fish, poultry, lean red meat, beans and eggs.
- Meat products such as sausages and pies – you may be able to eat small amounts of these.
- Chips, crisps and nuts – try oven-chips instead.
- Biscuits, cakes and pastry – try low-fat alternatives such as teacakes, scones and low-fat cakes or biscuits.
- Many processed foods are high in fat – for example pizza, lasagne, ready-made curry or other dishes. Eat only small amounts or use a low-fat version.

Cooking with less fat

The list below gives some ideas on how to reduce the amount of fat you use in cooking.

- Grill, bake, boil, steam or casserole meals instead of frying.
- Add flavour with fresh herbs, spices, lemon juice and mustard. Curry powder and hot spices should be avoided as they may make symptoms worse.
- Trim visible fat off meat and remove the skin from poultry.
- Skim fat off the surface of soups and casseroles.

If you are cutting down the fat in your diet you should try to eat extra carbohydrate to make up any shortfall in energy. This means more starch and sugar – bread and honey, for example. Take advice from a dietician to make sure you are getting enough calories, protein and vitamins.

Some people may also need monthly injections of fat-soluble vitamins.

Coping with acidity

Some people with PBC may experience an unpleasant acid taste in the mouth or they may get heartburn – a severe burning sensation in the chest. Stomach acids escaping into your food pipe (oesophagus) are the usual cause of this discomfort.

If this happens to you, then try eating little and often to reduce stomach acid. It is a good idea to get into the habit of carrying food around with you, in case you need to eat. Foods that contain carbohydrates – such as crackers, plain biscuits or breadsticks – are the best.

If symptoms persist try:

- avoiding big meals at night
- taking an antacid before bed and after meals
- raising the head of your bed by four or five inches.

Fatty liver

Fatty liver is a condition in which too much fat builds up in the liver. You are more at risk of this if you tend to put on weight around your middle – ‘apple-shaped’ as opposed to ‘pear-shaped’. The fat stored in the liver is just the same as that under the skin. So, if you cut down on fatty foods and lose weight you will also lose fat from the liver.

For the majority of people in the UK, the root causes of becoming overweight are down to:

- eating too much, especially too much fatty food
- drinking too much alcohol (up to nine out of ten people who drink too much alcohol will go on to get a fatty liver – even if they are not overweight)
- not doing enough exercise.

If you have fatty liver you may be advised to make changes to your life-style including:

- cutting out or down on alcohol (remember, alcohol is high in calories – around 300 calories in a pint of beer and 100 in a 175ml glass of wine and so drinking alcohol will slow the rate at which you lose weight)
- taking more exercise, such as walking or swimming
- eating plenty of fruit and vegetables

- eating slow-release starchy foods, such as bread and potatoes
- avoiding refined sugars and fats – as in chocolate, cakes and biscuits
- lowering your weight to a healthy level for your build and age and keeping it there.

Cirrhosis

If you have cirrhosis you should eat a well-balanced diet and may need extra energy and protein.

Cirrhosis causes damage that stops the liver working properly. This means it may be unable to store glycogen, the carbohydrate that provides short-term energy. When this happens, the body uses its own muscle tissue to provide energy between meals. This can lead to muscle wasting and weakness.

If you have been affected in this way, snacking between meals can top up your calories and protein (a bedtime snack is especially effective) as eating between meals helps preserve muscles and keep them strong. Improved nourishment will also make you feel better.

Try to eat regularly, say every two to three hours.

Suitable snacks include:

- teacake
- toast
- crackers
- cereal
- fruit
- high protein drinks.

If you develop the following symptoms you should see a doctor immediately and you may need to change your diet:

- fluid retention causing swelling of your abdomen (ascites) or legs (oedema)
- mental slowness or confusion (encephalopathy)
- fatty stools/faeces (steatorrhoea).

Fluid retention

Some people with cirrhosis get a build-up of fluid in the stomach area (ascites) and swelling of the feet and legs (oedema). These symptoms may be treated by drugs called diuretics (also known as water pills).

You can help control fluid retention by reducing the amount of common salt (often called sodium chloride by manufacturers) in your food. However, while it may be a good idea to cut out foods with a very high salt content, it could be harmful to change to a diet that is too low in salt.

Your taste buds become more sensitive to salt as you eat less of it. It is quite easy to cut down salt in the food you prepare yourself but most of the salt we eat is added to foods by the manufacturers. It

is often difficult to tell which processed foods are high in salt, as they may not necessarily taste salty. A dietician can advise you on which foods you can eat and which you should avoid.

Ideas for reducing salt

- Try not to add salt at the table, although you can use a small amount in cooking.
- Stock cubes, bouillon cubes and gravy granules can be used instead of salt in cooking.
- Avoid packet and tinned soups if possible.
- Tinned vegetables, including baked beans, can be high in salt. Look for low-salt or no-salt versions. Frozen vegetables are low in salt.
- Smoked and tinned fish, including salmon, tuna and pilchards in brine contain a lot of salt. Only have these occasionally or try the ones tinned in oil.
- Do not eat cured meats – including ham, bacon, sausages, and salami – on a daily basis. Use cold cooked fresh meat, poultry or eggs more often instead.
- Full-fat hard cheese is an excellent source of protein, so include it in your diet but do not have it every day.
- Ready meals and sauces are high in salt so try to have these less often. Pasta and ‘cook-in’ sauces can be used if no other salt is added to the meal.
- Bovril, Marmite and all yeast extracts are high in salt and so should be avoided.

Cooking without salt

Salt is not the only way to make your food taste better, instead try:

- freshly ground black pepper
- lemon juice on fish or meat
- redcurrant jelly, apricots, rosemary or garlic for lamb
- apple or gooseberry sauce with pork
- ginger, garlic and spring onions with mixed vegetables
- olive oil and vinegar with salad and vegetables
- mustard powder or nutmeg with mashed potato
- various home-made sauces – such as onion sauce made with milk and garlic – used instead of gravy
- toasted and ground sesame seeds added to pastries, breads and stir-fries
- washed and finely chopped coriander root in soups, stews and stock.

In hospital, people who are affected by ascites or oedema may be asked to restrict their fluid intake as well as the amount of salt they eat. This is only done under medical supervision and fluid intake is gradually increased by the time the person goes home.

Mental confusion

Some people with cirrhosis develop poor memory and concentration. They can become confused and may even lose consciousness. It happens because the damaged liver is unable to break down poisons that enter the body. These poisons then get into the bloodstream and are carried to the brain.

This tends to happen when a person with cirrhosis also has some other problem such as diarrhoea, vomiting, dehydration, constipation, infection or bleeding. The liver cannot cope with the extra stress on the body and is unable to deal with the poisons/toxins properly.

Treatment includes tackling the underlying medical problem and paying careful attention to diet, particularly to eating enough protein. The right nutrition is essential to prevent muscle loss and help improve the mental confusion. If you are affected in this way, talk to your doctor or dietician. You may also find some of these ideas helpful.

- Eat three or four small meals during the day rather than one large meal.
- Eat eggs and cheese as well as meat, fish and poultry for protein.
- Avoid eating large amounts of protein at one meal – full cooked breakfast, for example. Instead have a bacon sandwich, egg or beans on toast, or a sausage sandwich.
- Fill up with starchy foods such as potatoes, rice, pasta and cereals for slow-release energy.
- Breakfast cereal, served with milk, can make a useful snack. Other ideas include scones, teacakes, crumpets, toast and jam, crackers and cheese, crisps, a chocolate bar or flapjack.
- If your appetite is poor and you are not able to eat snacks, you may need to take high-protein and high-calorie drinks on the advice of your dietician or doctor.

High blood sugar

If you have too much sugar (glucose) in your blood, it is known as hyperglycaemia and affects some people with cirrhosis.

If this happens in your case, you may be advised to follow a diet similar to the one used by people with diabetes. This means avoiding foods that are high in sugar but otherwise eating a well-balanced diet.

People with hyperglycaemia have different needs and will require individual advice from a dietician. It is important to eat enough calories and protein to keep well nourished; energy lost by cutting down on sugar must be replaced from another source.

Tea, coffee and sugar-free fizzy drinks and squash are better than sugary drinks which release sugar into the system very quickly. If you have a 'sweet-tooth' then use sweeteners rather than sugar and avoid sweets and filled chocolate.

Commercially produced drinks such as Complan and BuildUp also contain quite a lot of sugar but you may need to use them to get all the energy you need. A dietician can advise you on the best type for you and how to work it into your diet.

Enjoy what you eat

You may find it helpful to discuss diet and food problems with other people who have the same liver disease. It is a good opportunity to share cooking hints, recipes and menus. However, it is important to remember that people vary in their dietary needs. Even if you have the same disease as someone else, your needs may be different.

If you have been ill you may not feel like eating your usual meals, but eating well and keeping up both strength and weight are essential for people with liver problems. Nutrition is part of the treatment for liver disease and can help the liver work properly for longer. If you are losing weight unintentionally for any reason, then it is essential to seek dietary advice.

In normal circumstances, a well-balanced diet is one with plenty of fruit and vegetables and only a small amount of fat and sugar. However, if you are unwell and losing weight then some of the rules change. In this case, foods high in fat and sugar are good for you. Cakes, biscuits, chocolate, puddings and crisps provide a lot of calories in only a small amount of food and are an easy way of getting extra nourishment. You will probably need to take nutritional supplements as well.

It is important to enjoy what you eat and to discuss any problems you may have with your doctor or dietician.

Useful words

Balanced diet – a diet that contains all the different substances your body needs, in the right amounts to keep you healthy.

Bile – a yellow-green coloured liquid made in your liver that acts as a detergent to break down fat into tiny droplets.

Bowel – another name for the intestine or gut, that runs from the stomach to the anus. It is split into two main sections, the small intestine (where food is broken down and absorbed) and the large intestine (which receives processed food, absorbing water and salt, and forms solid waste).

Diet – the range of food a person eats.

Calories – units of energy, sometimes written as kilocalories (kcal) or kilojoules (kj).

Carbohydrates – substances that give energy, such as starch (found in bread, rice and potatoes) and sugars (found in fruit, honey and jam).

Glucose – a simple sugar and main source of ‘quick’ energy for the body (it is the sole source of energy for the brain).

Glycogen – stored in the liver and the muscles, glycogen is the way that the body stores carbohydrates. It is easily changed back to glucose when the body needs energy fast.

Hepatic – anything to do with the liver.

Intestine – another name for the gut or bowel (see above).

Nutrients – something that must be eaten in the diet to provide energy or material for growth. Carbohydrates, fats, proteins, minerals and vitamins are all nutrients.

Who else can help?

British Dietetic Association

For easy-to-follow recipes for healthy eating try the website at www.bda.uk.com

Food Standards Agency

Tel: 0845 6060667 or visit www.food.gov.uk

Supermarkets

Most major supermarkets provide free leaflets on nutrition and healthy eating based on the Health Education Authority's *Balance of Good Health Advice*.

Registered Dietician

Your local registered dietician can be contacted through your doctor or nearest large hospital. You will need a referral from your GP or specialist for individual advice.

Further Information

Leaflets listed are:

- Alcohol and liver disease
- Hepatitis A
- Primary biliary cirrhosis
- Fatty liver disease
- Cirrhosis of the liver

Special thanks

Jill Johnson, Chief Dietician/Clinical Leader, Queen Elizabeth Hospital.

Can you make a difference?

Liver disease is increasing alarmingly and the need to do more is greater than ever before...

For the British Liver Trust to continue its support, information and research programme, we need your help. We raise funds from many sources and a large proportion is donated through voluntary contributions. If you would like to send a donation it will enable us to continue providing the services that people need.

If you can help, please fill in the form on the page opposite.

If you wish to help us further with our work by organising or participating in a fundraising event or becoming a **"Friend of the British Liver Trust"** please:

Call us on
0870 770 8028

Email us at
info@britishlivertrust.org.uk

Make a donation via our website at
www.britishlivertrust.org.uk

or write to
British Liver Trust
2 Southampton Road
Ringwood, BH24 1HY

I enclose a cheque/postal order made payable to the British Liver Trust

I wish to pay by credit card:

MasterCard Visa CAF CharityCard

Please debit my card with the sum of £.....

Card No.

Expiry date.....

Name

Address

.....

.....Postcode.....

Telephone

Email.....

Please tick here if you are willing for us to contact you by email in future

SignatureDate

I am a tax payer and authorise the charity to reclaim the tax on my donation*

Please send me your newsletter

Please send me a list of information leaflets

I am interested in leaving the Trust a legacy.

Please send me more information

I am interested in helping to raise awareness and funds in my local community. Please send me more information

* You must pay an amount of income tax and/or capital gains tax equal to the amount the British Liver Trust will reclaim on your donation: which is equal to 28p for every £1 you donate.

Your name and address will be added to our computer database ensuring you are sent the latest information. If you do not wish to receive further information, please tick here.

British Liver Trust

2 Southampton Road
Ringwood, BH24 1HY

Tel: 0870 770 8028 **Fax:** 01425 481335

Email: info@britishlivertrust.org.uk

Web site: www.britishlivertrust.org.uk