Diet and nutrition

A balanced diet is essential for good health. Although there are no foods that can cure lymphoma, eating well can help you to cope with treatment and support your recovery.

- What is a healthy diet? (page 1)
- How can I eat well during treatment for lymphoma? (page 4)
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This information sheet gives general guidance on following a healthy diet, including how to eat well during your treatment for lymphoma. You should speak to your medical team before making any changes to your diet. If you have neutropenia (low neutrophils), you may need to avoid certain foods.

We have more information about neutropenia and food safety, which you can read on our website at www.lymphomas.org.uk. You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

What is a healthy diet?

A healthy diet is made up of different food groups, which give your body nutrients to grow, repair, and work well.

Carbohydrates (starchy foods)

Carbohydrates are the main source of energy for your body. They also provide fibre, which is important in digestive health. Carbohydrates should make up around a third of your daily food intake.

Foods that are high in carbohydrates include rice, bread and pasta. For a healthy option, choose brown, wholegrain or wholemeal varieties.
Protein

Protein is important for your body to grow and repair. You may need more protein than usual to help your body heal during and after your treatment for lymphoma.

Foods high in protein include meat, fish, eggs, beans and lentils. For a healthy option, choose lean, grilled cuts of meat. Red meat is a good source of iron and zinc as well as protein.

The World Cancer Research Fund reports a link between eating a lot of red meat and some cancers (eg bowel cancer). Limit the amount of cooked red meat you eat to 70g per day.

Aim for at least 2 portions of fish a week; 1 of these should be an oily fish such as salmon. If you are pregnant, current NHS guidance is not to eat more than 2 portions of oily fish a week.

You should also include dairy products (made from milk) in your diet. Dairy provides calcium (important for bone health), zinc (a mineral with various functions, including helping wounds heal) and protein. Milk, yoghurts and cheese are good sources of dairy. For a healthy option, choose non full-fat varieties and use low-fat spreads instead of butter, which is high in saturated fat. If you are trying to gain weight, however, you might find it helps to eat some of the higher fat options.

Fat

Fat is an important source of energy and provides useful vitamins. Unsaturated (‘good’) fats can help keep your heart healthy and lower your cholesterol. Foods such as avocados, brazil nuts and oily fish are examples of sources of unsaturated fats. You can also include these types of good fat in your diet if you cook with oils or use oils as a dressing.

You should limit your intake of saturated (‘sat’) fats. This type of fat is found in foods such as butter, meat, cakes, and many processed foods, eg sausages and crisps. It’s fine to have a little bit of saturated fat – women should eat no more than 20g a day; men should eat no more than 30g a day. Too much of this type of fat increases health risks including heart disease and stroke.

You can see how much of each type of fat is in a product by checking the nutritional information on the packaging.

Vitamins and minerals

Fruits and vegetables are good sources of vitamins and minerals. Vitamins and minerals have many different functions, including keeping your immune system, bones, teeth and skin healthy. Minerals are important for the strength of your teeth and bones. They also help change the food you eat into energy you use.

The recommended intake of fruit and vegetables is at least 5 portions (80g) per day. Examples of what counts as one portion are:
• an apple, banana or slice of melon
• 3 heaped tablespoons of cooked vegetables (eg carrots, peas or sweetcorn)
• 7 cherry tomatoes.

See NHS Choices for more information about portion sizes of fruit and vegetables on their website at www.bit.do/5-a-day.

If you think you might not be getting enough vitamins and minerals, speak to your doctor. **Do not take nutritional supplements without medical advice** because some can react with other medication.

**Fibre**

Fibre helps to keep your heart healthy and your digestive system working well. It is found in foods that come from plants, for example fruits, vegetables, cereals and potatoes. Although it is not classed as a separate food group, you should aim to eat 30g of fibre each day.

NHS Choices has advice on including more fibre in your diet, which you can find at www.bit.do/NHS-choices-fibre. We have more information about managing changes in bowel habits, including constipation, on our website at www.lymphomas.org.uk. You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

If you have a good appetite and are eating well, use the Eatwell plate as a guide. The Eatwell plate shows in what proportion various food groups should make up your daily diet. The key points are to eat:

- plenty of fruit and vegetables
- plenty of carbohydrates (starchy) foods
- some meat, fish, eggs, and pulses
- some milk and other dairy foods
- small amounts of foods high in fat and sugar.

You can read more about eating a balanced diet on the NHS Choices website at www.bit.do/NHS-choices-healthy-diet
How can I eat well during treatment for lymphoma?

Getting the nutrients you need through a healthy diet is important in the treatment for lymphoma. It may help you tolerate higher doses of chemotherapy and protect you from infection. Eating well can also help you to feel well, both emotionally and physically. If you struggle to eat and drink during your treatment, speak to a member of your medical team for advice. They may offer you nutritional supplements or refer you to a dietitian. A dietitian assesses your nutritional wellbeing and gives support tailored to your specific nutritional needs.

We offer some suggestions to help with eating problems that commonly affect people who are living with lymphoma, including guidance on food safety if you are neutropenic. We also have some basic advice if you have a sore mouth as a side effect of treatment. Speak to a member of your medical team before making any changes to your diet. You can find this information on our website at [www.lymphomas.org.uk](http://www.lymphomas.org.uk). You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

### Loss of appetite or feeling full quickly

Some medicines and treatments for lymphoma can lower your appetite or make you feel full soon after you start to eat. This could be a side effect of chemotherapy. It may also happen if you have lymphoma in your gut or if you have radiotherapy to the gut.

If you find it difficult to eat enough, you may find the following tips helpful:

- Drink at least 30 minutes before your food to avoid filling up right before you eat.
- Serve your food on a smaller plate – a large plateful can be off-putting.
- Eat when you are hungry instead of at set meal times.
- Eat little and often, with small snacks between meals.
- Choose high energy foods (eg omelettes, cheese and biscuits) over foods that are filling but low in energy (eg salads and soups).
- Fortify your meals with high energy foods such as olive oil, cream, cheese or milk powder.

We have more information about treatments for lymphoma on our website at [www.lymphomas.org.uk](http://www.lymphomas.org.uk). You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

### Weight loss

If you have lost weight during your treatment, you can boost your energy (calories) intake in the following ways:
Choose full-fat options (eg whole milk) over low-fat alternatives.
Add cheese or sauces to pasta or vegetables.
Add sugar, honey or syrup to drinks and puddings.
Add butter or oil to bread, pasta, potatoes and vegetables.

If you continue to lose weight, ask to be referred to a dietitian.

**Nausea and sickness**

Nausea (feeling or being sick) is a common side effect of many chemotherapy drugs. You may also feel nauseous with radiotherapy. To help with nausea:

- take antiemetics (anti-sickness medication)
- eat dry plain foods such as crackers, toast or rice
- add ginger to your diet, for example in the form of ginger beer, ginger tea, ginger biscuits, or root ginger, as ginger may reduce nausea
- eat food cold or cook it in a microwave to minimise the smell of food that can worsen nausea.

We have more information about managing nausea, as well as information about managing sore mouth, which you can find on our website at [www.lymphomas.org.uk](http://www.lymphomas.org.uk). You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

**Changes in taste**

A side effect of some medications, including chemotherapy and some biological therapies, is that food tastes different. Many people say food tastes bland. Others describe a metallic taste, or find that food tastes more salty or bitter than usual.

Flavouring your food might help if your food starts to taste different. Herbs, spices, sauces and chutneys can flavour savoury food. A fruit coulis could help to flavour puddings.

You might find sharp tasting fizzy drinks (eg lemonade or ginger beer) more enjoyable than milder flavours. Energy drinks are often high in calories (energy) but contain very few other nutrients. A more nourishing option is a milk-based drink which provides protein, vitamins and minerals as well as energy.

Many people stop enjoying the taste of tea and coffee during their treatment for lymphoma. If this is the case for you, you could try herbal teas.

During your treatment, you may be more at risk of infection, such as oral thrush, which can make food taste unpleasant. To avoid infection, keep good mouth care. Brush your teeth regularly with a soft bristled brush and use an alcohol-free mouthwash.
The effects of treatment on your taste may change over time. Taste changes at the start of your treatment may not be the same as the taste changes you experience later on in your treatment. For this reason, keep trying different foods throughout your treatment, even if you didn't like their taste at the start of it.

Once treatment has finished, taste changes should start to fade.

**Diarrhoea**

Diarrhoea can be a side effect of some treatments for lymphoma. It is important to speak with your doctor or nurse who may be able to give you some medication to help with it. You may find the following helpful:

- Drink plenty of fluids to prevent dehydration. As well as water, soup, jelly and ice lollies can be a source of fluids.
- Be aware of symptoms of dehydration eg passing urine less often or passing only small amounts of dark coloured urine.
- Take a little and often approach to eating.

Ask your dietitian, doctor or nurse if you need to change your diet to manage your diarrhoea.

We have more information about managing diarrhoea, which you can find on our website at [www.lymphomas.org.uk](http://www.lymphomas.org.uk). You can print this information at home or, if you prefer, our helpline can send you copies. Please email at [information@lymphomas.org.uk](mailto:information@lymphomas.org.uk) or call on **0808 808 5555**.

**Constipation**

Constipation is a side effect of some chemotherapy drugs, antiemetics (anti-sickness medications) and pain medication (especially morphine-based ones, such as codeine).

To ease constipation, increase the amount of fibre in your diet. You can find tips to help you do this on the NHS Choices website. Drinking plenty of fluids and taking gentle exercise may also help. Talk to your doctor or nurse about suitable laxatives.

We have more information about managing constipation, which you can find on our website at [www.lymphomas.org.uk](http://www.lymphomas.org.uk). You can print this information at home or, if you prefer, our helpline can send you copies. Please email at [information@lymphomas.org.uk](mailto:information@lymphomas.org.uk) or call on **0808 808 5555**. You can also find tips to help you to include more fibre in your diet on the NHS Choices website at [www.bit.do/NHS-choices-healthy-diet](http://www.bit.do/NHS-choices-healthy-diet).
FAQs about diet and lymphoma

You may come across news stories about whether certain foods can prevent or cure cancer. There is no evidence that food can cure cancer – be wary of any claims that it can. A healthy diet can, however, have wide-reaching benefits. In this section, we answer some common questions people have about diet and lymphoma. Speak to your medical team for advice specific to your situation.

Is it safe to eat grapefruit?

You may have heard that it is unsafe to eat grapefruit while you are having treatment for lymphoma.

Some foods affect how well drugs work. Before they can take effect, drugs first need to be broken down and absorbed into your bloodstream. Proteins called ‘enzymes’, particularly one known as ‘CYP3A’, are important in this process. Foods that block the action of such enzymes mean that less of the drug is absorbed into your body.

Grapefruit can block CYP3A. You may, therefore, be advised to avoid eating grapefruit or drinking grapefruit juice while you are having treatment for lymphoma. Other fruits that may block CYP3A include Seville orange, blackberry, pomegranate and some varieties of grape.

Speak to your consultant to find out if there are any foods you should avoid. He or she can base their advice on how your specific drugs work.

Is green tea safe for people with lymphoma?

Green tea is made from the leaves of *Camellia sinensis*, a plant that grows in China and India. Scientists think green tea has the potential to prevent some cancers and to stop cancer cells from growing. However, far more research is needed before they can reach a conclusion.

There hasn’t been much research into whether green tea can help in the treatment of cancer. In a small trial of 42 people who had chronic lymphocytic leukaemia (CLL), a third had a reduction in the number of their cancerous cells and in the size of their swollen lymph nodes after drinking green tea.

Recently, researchers reported that green tea could stop the drug bortezomib (Velcade®) working as well as it would do otherwise. Findings so far have come only from animal studies and more research is needed to tell whether this also applies to humans.

Is it OK to drink alcohol while I am having treatment for lymphoma?

Alcohol can interact with some drugs and make them less effective. Check with your consultant whether this is the case with the treatment you are having, and if it is safe for you to drink alcohol.
The UK Government updated its guidance in January 2016 following new evidence linking alcohol to certain health risks. The guidance, under consultation at the time of writing, states that adults should not drink more than 14 units of alcohol per week. These should be spread out during the week. As a general guide, 14 units is 6 pints of beer, 6 glasses of wine, or 14 glasses (25ml) of spirits.

You can find out more about alcohol, its effects and how to cut down on the Drinkaware website at www.drinkaware.co.uk.

**Should I eat only organic foods?**

At the moment there is no good quality evidence to support that organic foods can prevent cancer or stop cancer recurring.

The term ‘organic’ means food produced with restricted use of man-made fertilisers and pesticides. In the UK, this is set by the Department for Agriculture and Rural Affairs (DEFRA).

Research has shown that organic cereals, fruit and vegetables have higher levels of compounds (chemicals) that have antioxidant activity. Antioxidants absorb free radicals, which can damage cells. No research has yet looked at the potential additional health benefits of increased amounts of antioxidants.

Some people choose to eat organic food as they are concerned about the residues (traces) of pesticides and herbicides left in food. These levels are closely monitored and reviewed. In 2015, for example, the International Agency for Research on Cancer (IARC) re-classified glyphosate (a residue commonly found in bread) to ‘possibly carcinogenic’ (having the potential to cause cancer). This led to the European Union further restricting the use of glyphosate. The levels of residues in food are considered to be well below the maximum level that would pose a health risk.

There have been studies looking at risk of non-Hodgkin lymphoma and occupational exposure to pesticides and herbicides in agriculture workers. The results are conflicting; further research is needed to clarify these risks.

**Will nutritional supplements help me?**

If you are able to eat a healthy balanced diet, you do not need to take an additional vitamin or mineral supplement. If eating is difficult, you may need to take an additional general multivitamin and mineral supplement.

Some vitamins and minerals can be harmful if taken in high doses and can react with some medications and cancer treatment. Speak to your pharmacist, doctor or dietitian before starting to take any supplements.
Are there foods I should avoid if my immune system is suppressed (lowered)?

If your immune system is lowered, doctors may say you are ‘immunosuppressed’. If you have human immunodeficiency virus (HIV) or if you are neutropenic (have low neutrophils), you are immunosuppressed and vulnerable to infection. Speak to your medical team for advice about any foods you should avoid in order to prevent infection.

We have more information about lymphoma and immunosuppression, which you can find on our website at www.lymphomas.org.uk. You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

Will sugar make my lymphoma worse?

Some studies show that cancer cells use energy more quickly than do healthy cells. However, there is no evidence that eating sugar makes lymphoma, or any type of cancer, grow. There are also no research findings to show that if you do not eat sugar, your lymphoma will go away.

If you are losing weight, sugar is a good source of energy and may help you to stabilise and regain weight. If you have no eating difficulties, consume sugar in moderation, as per the guidance on the Eatwell plate.

Eating a lot of sugar can have other health risks, including obesity, which is linked to the development of other cancer types. You can find out more about body weight and the risk of cancer from Cancer Research UK at www.bit.do/cruk-weight-cancer.

Can Echinacea help me?

Echinacea (purple coneflower) is a herb that grows in North America. Some people believe that Echinacea can boost immunity, fight cancer and improve side effects of chemotherapy and radiotherapy. Research continues but there is no evidence to support these claims at the time of writing.

Can I eat out?

You may feel anxious about eating out if you have difficulties eating. If your appetite is small, you could order a starter instead of a main course or order a child’s portion. If you are neutropenic, please see our separate information about food safety, which includes guidance on eating out.
Is it safe to diet while I am having treatment for lymphoma?

Generally, you should not try to lose weight during treatment because doing so can make it harder for your immune system to recover from treatment. Steroids can stimulate your appetite, and cause fluid retention leading to weight gain. Your weight should return to normal once you stop taking steroids.

We have more information about steroids, which you can find on our website at www.lymphomas.org.uk. You can print this information at home or, if you prefer, our helpline can send you copies. Please email at information@lymphomas.org.uk or call on 0808 808 5555.

Is nutrition still important once I finish my treatment for lymphoma?

A healthy diet is just as important once you complete your treatment for lymphoma as it is during treatment. The benefits of good nutrition include:

- helping your physical and mental recovery
- lowering your risk of infection
- increasing your energy and strength
- helping to reduce the risk of other types of cancer.

Further recommendations are available from the World Cancer Research Fund in their publication, Healthy living after cancer, on their website at www.bit.do/healthy-living-cancer.

Further information and resources

Speak to your medical team for information about your diet – they can give you the best advice based on your specific diagnosis and personal circumstances.

We have listed a few organisations and resources you might find useful in finding out more about diet and nutrition. Our helpline team is available if you wish to talk through any aspect of your lymphoma. You can call them on 0808 808 5555. You may also wish to use our online forums to get in touch with others affected by lymphoma.

Macmillan Cancer Support provides information about diet and nutrition. They publish a booklet (which you can download online) called Eating problems and cancer and recipes specifically for people who are living with cancer.

UK Government Meals on Wheels service is for people who live in England or Wales. If you are living with a diagnosis of cancer or caring for someone with cancer, you may be eligible to have meals delivered to you at home. To find out whether your geographical area is covered, use the online postcode search tool or call your local council.
Eating well when you have cancer is a booklet published by The Royal Marsden NHS Trust. It includes information about nutrition, advice on how to deal with common difficulties related to eating, and meal ideas.

Sources used

These are some of the resources we used to prepare this information. The full list of sources is available on request. Please contact us by email at publications@lymphomas.org.uk or call on 01296 619409 if you would like a copy.


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We continually strive to improve our resources for people affected by lymphoma and we would be interested in any feedback you might have about this information. Please visit www.lymphomas.org.uk/feedback or email publications@lymphomas.org.uk if you have any comments. Alternatively please phone our helpline on 0808 808 5555.
If you have found this information useful and would like to help make it available to other people coping with lymphoma, then please consider making a donation to support our work at www.lymphomas.org.uk/donate. We rely totally on voluntary donations. Thank you.

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