Diet and nutrition

This page gives general guidance on following a healthy diet, including how to eat well during your treatment for lymphoma.

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Why is a healthy diet important?

Eating a healthy diet is important for both physical and mental wellbeing. It gives your body the nutrients it needs to grow, repair, and work well.

By staying in good general health, more treatment options could be available to you. It can also help you tolerate higher doses of chemotherapy and protect you from infection.

It’s important to continue to eat well after your treatment to help in your recovery, too. Getting the nutrients you need helps to keep your strength and energy up, and can lower the risk of developing other cancers and illnesses.

What is a healthy diet?

The UK government publish the Eatwell Guide, which gives general guidance on healthy eating.
The Vegetarian Society have produced a **version for people who eat a vegetarian diet** that does not contain fish or meat. The Vegan Society also give guidance on **nutrition for those following a vegan diet**.

Your diet should include carbohydrates, protein, fruit and vegetables, dairy (or dairy alternatives), vitamins and minerals, fibre and fat.

**Carbohydrates (starchy foods)**

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

Foods high in carbohydrates include rice, potatoes, bread and pasta. For a healthy and higher fibre option, choose brown, wholegrain or wholemeal varieties. Grains, such as quinoa and cous cous, also provide a source of carbohydrate.
Protein

Protein is important for your body to grow and repair, as well as to maintain muscle mass. You might need more protein than usual to help your body heal during and after your treatment for lymphoma. If you are losing weight and muscle mass, seek advice from a member of your medical team.

Foods that are high in protein include fish, eggs, beans, lentils, nuts, seeds, nut butters and hummus. Dairy products, such as milk, yoghurt and cheese, also contain protein.

Meat is a good source of protein. For a healthier meat option, choose lean (little fat), grilled cuts of meat. As well as providing protein, red meat is also a good source of the minerals iron and zinc.

Some research reports a link between cancer and eating a lot of red meat (such as lamb, pork and beef) and processed meats (such as sausages, bacon and cured meats). The government advises limiting the amount of red and processed meats you eat to 70g per day. World Cancer Research Fund gives some ideas to help you cut down on red and processed meats.

Cancer Research UK gives more information about the association between some meats and cancer.

Aim to eat two portions of fish a week. One of these should be an oily fish such as salmon, mackerel or trout. If you are pregnant, the current NHS guidance recommends not to eat more than two portions of oily fish a week.

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 low-fat dairy products, including 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.

If you have a low number of white blood cells (neutropenia), avoid products that contain living bacteria. This includes ‘probiotic’ or ‘live’ yoghurts and yoghurt drinks, unpasteurised dairy products, blue-veined cheeses and mould-ripened cheeses.
If you are lactose intolerant or follow a vegan diet, you can meet your calcium requirements with non-dairy alternatives, such as coconut milk, dairy-free yoghurts and soya products. The NHS website offers more information about dairy alternatives.

**Fat**

Fat is an important source of energy and vitamins.

Unsaturated ('good') fats can help keep your heart healthy and lower your cholesterol. Avocados, brazil nuts and oily fish are examples of sources of unsaturated fats. You can also include unsaturated fat in your diet by cooking with oils or using oils as a dressing.

Limit your intake of saturated ('sat') fats. This type of fat is found in foods such as butter, meat, cakes, and many processed foods, such as 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.

Check the nutritional information given on the packaging of products to see how much of each type of fat it contains. There are also apps available to help you to check nutritional content, for example, the government’s food scanner app.

**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.

Fruits and vegetables are good sources of vitamins and minerals. The recommended intake of fruit and vegetables is at least five different portions (80g) per day. Eating a 30g portion of dried fruit also counts as a portion.

As a rough guide, the following count as one portion:

- an apple, banana or slice of melon
- three heaped tablespoons of cooked vegetables
- seven cherry tomatoes.

The NHS website gives more information about what counts as one of your five a day. The World Cancer Research Fund also produce a set of resources that you can download free of charge, including a poster on what a 5 a day portion is.
If you are concerned about getting enough vitamins and minerals, speak to your doctor. Do not take over-the-counter vitamin and mineral supplements without the advice of a member of your medical team or a dietitian because some can react with other medication.

**Fibre**

Fibre helps with heart and digestive health. It is found in foods that come from plants, for example fruits, vegetables, cereals and potatoes. Aim to eat 30g of fibre each day. The NHS website gives tips to help get more fibre in your diet.

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**How can I eat well during treatment for lymphoma?**

As long as you do not have troublesome symptoms related to your lymphoma or treatment, the general guidance is to eat a healthy, balanced diet. The government’s [Eatwell Guide](https://www.nhs.uk/live-well/eatwell/) shows the types and amounts of different foods you should include in your diet. The key points are to eat:

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

You should also get plenty of fluids each day. The general recommendation is to drink around 1.5 to 2 litres (roughly 6 to 8 glasses) per day. All fluids count, with the exception of alcohol. Be aware, however, that tea and coffee contains caffeine.

**What if I’m struggling to eat and drink?**

If you struggle to eat and drink during or after your treatment, speak to a member of your medical team. They may refer you to a dietitian, who can assess your nutritional wellbeing and tailor advice specific to your needs. You might also be offered nutritional supplements; however, do not take these without seeking medical advice.

We offer suggestions to help with difficulties that commonly affect people who are living with lymphoma, including guidance on food safety if you are neutropenic. We also offer basic tips if you have a sore mouth as a side effect of treatment.
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 your gut.

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

- Don’t drink anything at least 30 minutes before your food to avoid filling up just before you eat.
- Serve your food on a smaller plate – a large plateful can be off-putting.
- Eat little and often, with small snacks between meals.
- Choose high-energy foods (such as omelettes, cheese and biscuits) instead of those that are filling but often low in energy (such as salads and soups).
- Fortify your meals with high-energy foods such as olive oil, cream, cheese or milk powder.

Macmillan Cancer Support give more advice on adding energy and protein to everyday foods.

You can also find information to help you cope with the impact of side effects on your diet and nutrition from the World Cancer Research Fund. They produce a set of resources, including a booklet about how to eat well during cancer.

Weight loss and weight gain

If you have lost weight during your treatment, you can boost your energy intake in the following ways:

- Choose full-fat options (such as 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.

Weight gain can happen for various reasons including changes to your metabolism or the use of steroids as part of your treatment.

Although it can be upsetting to gain weight, continue to eat a healthy diet. Your weight should return to normal once you stop taking steroids.
If you are concerned about weight, speak to your medical team.

**Nausea and sickness**

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

If you experience nausea and sickness, you could ask your medical team if they can offer you anti-sickness medication (*antiemetics*).

To help with nausea:

- 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
- eat food cold or cook it in a microwave. This minimises the smell of food, which could worsen nausea.

**Changes in taste**

A side effect of some medications, including chemotherapy and some *targeted therapies*, is that food tastes different. Many people say food tastes bland. Other people describe a metallic taste in their mouth. It’s also quite common for food to taste more salty, bitter or sweet than usual.

If your taste is affected and your mouth is not sore, you could try flavouring savoury food with herbs, spices, sauces and chutneys. A fruit coulis could help to flavour desserts.

You might find ‘sharp’ tasting fizzy drinks (such as lemonade or ginger beer) more enjoyable than milder flavours. However, milk-based drinks are more nourishing, providing protein, vitamins and minerals as well as energy.

Many people stop enjoying 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 developing *infections*, such as oral thrush. This 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. For example, foods that you didn’t enjoy earlier in your treatment might start to taste good again, although this can take some time. Once you finish treatment, taste changes should start to fade, so try to re-introduce any foods that you stopped enjoying.

**Diarrhoea**

Diarrhoea can be a side effect of some treatments for lymphoma. Eating little and often can be a helpful approach. Drink plenty of fluids to prevent dehydration while you have diarrhoea. Soup, jelly and ice lollies are sources of fluids, too.

Be aware of symptoms of dehydration, which include passing urine less often or passing only small amounts of dark coloured urine.

If diarrhoea affects you, speak to your doctor or nurse. They might give you medication to help and can advise on whether to make changes to your diet. You could also speak to them about the possibility of getting a referral to a dietitian.

**Constipation**

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

Talk to your doctor or nurse about whether it is suitable for you to take laxatives and, if so, which ones. You might also find that you can ease constipation by increasing the amount of fibre in your diet. Drinking plenty of fluids and taking gentle exercise might also help.

**FAQs about diet and lymphoma**

We answer some common questions people have about diet and lymphoma. Speak to your medical team for advice specific to your situation.

**Are there certain foods that could help cure lymphoma?**

From time to time, you might come across news stories about whether certain foods can prevent or cure cancer. Unfortunately, there is no evidence that food can cure cancer – be wary of claims that it can.
Cancer Research UK have information about alternative cancer diets, including Gerson therapy (coffee enemas) and macrobiotic diets (made up of vegetarian foods). They advise against following an alternative cancer diet. In addition to the lack of scientific evidence to say that any work, some could make you very unwell and lead to nutritional deficiencies.

**Should I take supplements?**

If you are able to eat a healthy balanced diet, the general guidance is that you do not need to take additional vitamin or mineral supplements. If you have difficulties eating, your doctor might advise you to take an additional general multivitamin and mineral supplement. It’s important to check with them before taking supplements. Some are harmful if taken in high doses and can react with other medications and treatment for lymphoma.

**Are there foods I should avoid if my immune system is lowered?**

If your immune system is lowered, doctors may say you are ‘immunosuppressed’. This makes you more vulnerable to infection. If you have human immunodeficiency virus (HIV) or if you have a low number of white blood cells (neutropenia), you are immunosuppressed. Speak to your medical team for advice about any foods you should avoid to reduce your risk of infection.

**Will sugar make my lymphoma worse?**

Some people worry that sugar could ‘feed’ their lymphoma. There is no evidence that eating sugar makes lymphoma, or any type of cancer, grow. There are also no research findings to say that if you do not eat sugar, your lymphoma will go away.

Eating a lot of sugar brings other health risks, however, including obesity, which is linked to the development of other cancer types. A healthy diet means eating sugar in moderation. In general, sugary foods (such as cakes, biscuits and honey) provide little nutritional goodness and can lead to weight gain. If you are losing weight unintentionally, however, you may need to temporarily increase your intake of foods that are high in sugar and fat. Your doctor can advise you on this.

Cancer Research UK has more information about sugar and cancer.
Is it OK to eat a vegetarian or vegan diet?

If you follow a vegetarian or vegan diet, you can still meet your nutritional requirements. Include a variety of carbohydrate foods, protein, fruit and vegetables in your diet.

Vegetarian sources of protein include dairy products, eggs and tofu. Vegan sources include pulses, nuts and soya products.

Ensure, too, that you get enough iron. You can do this by eating pulses and dark green, leafy vegetables. If you eat a vegan diet, you should also consider taking a Vitamin B12 supplement to avoid developing a deficiency.

The Vegetarian Society and The Vegan Society give further guidance relevant to these diets.

Should I eat organic foods?

Organic food is 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).

Some people choose to eat an organic diet because they are concerned about traces of pesticides and herbicides left in food. These levels are closely monitored and reviewed with the aim of keeping them well below the level considered to be safe.

Some research shows that organically grown crops contain higher levels of antioxidants. Antioxidants absorb free radicals, which can damage cells. However, there is not yet research to say whether eating more antioxidants in food reduces the risk of cancer. In addition, taking antioxidant supplements could have harmful effects.

In summary, there is no good quality evidence to support that eating organic foods can prevent cancer or stop cancer recurring. For example:

- In 2014, Cancer Research UK reported findings of their research looking into whether women who ate mostly or wholly organic foods were less likely to develop cancer than those who never ate organic foods. Among the 600,000 women who took part, they found no overall difference in risk between the two groups. An exception was in relation to non-Hodgkin lymphoma (NHL). The researchers state that the risk of developing NHL is possibly lower in those who eat organic foods, but further investigation is needed.
• A study carried out in France looked at 69,000 people. It found a lower risk of cancer in those who ate the most organic foods compared to those who ate the least. The largest effect was seen with lymphoma – particularly non-Hodgkin lymphoma. As the number of cases was very low, however, scientists are unable to draw conclusions.

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 these enzymes lower the amount of the drug that is absorbed into your body, making it less effective.

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 oranges, blackberries, pomegranates and some varieties of grape.

Your consultant can advise you on whether to avoid particular foods and drinks based on your specific treatment.

Is green tea helpful 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 could have the potential to prevent some cancers and to stop cancer cells from growing. However, far more research is needed. In addition, Cancer Research UK caution that there may be other risks associated with increased antioxidant consumption, for example, lowering the body’s ability to fight disease.

A study of over 40,000 adults in Japan found a 42% lower rate of blood cancers (including non-Hodgkin lymphoma) in people who drank five or more cups of green tea each day compared to zero or one cup a day. Some scientists believe that the high level of antioxidants in green tea may account for this. However, limitations to this study mean that firm conclusions cannot be drawn.
A review carried out in 2016 looked at 51 studies with a total of over 1.6 million people. There was no conclusive evidence to make a link between drinking green tea and preventing cancer.

**Is it safe to drink green tea?**

There hasn't been thorough testing to answer this question with certainty. However, in general, it’s thought that moderate consumption of green tea is safe for people with lymphoma. You should, however, check with your doctors whether it could affect your treatment – for example, researchers have 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.

**Can Echinacea help me?**

Some people believe that the herb, Echinacea (purple coneflower) can boost immunity, fight cancer and improve side effects of chemotherapy and radiotherapy. At the moment, there is no evidence to support these ideas. If you would like to take Echinacea, speak to a member of your medical team about doing so first.

**Is it safe to eat chili peppers?**

Chili peppers contain capsaicin, which is what makes your mouth feel hot when you eat them. Although far more research is needed, early findings suggest that there may be a link with cancer. Capsaicin could possibly help to treat some cancers but may lead to other types of cancer. No links have yet been made with lymphoma.

**Can I eat out?**

You may feel anxious about eating out if you have difficulties eating. If your appetite is lowered, you could order a starter instead of a main course or order a child's portion.

If you have a low number of neutrophils (**neutropenia**), take extra care to follow **food safety** advice when eating out. You can check the food hygiene rating of pubs, clubs, take-aways and restaurants at the **scores on the doors** website.

**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.

If you are thinking of dieting, speak to your doctor for advice on whether it is safe to do so.

We have separate information about the topics in bold font. Please get in touch if you’d like to request copies or if you would like further information about any aspect of lymphoma. Phone 0808 808 5555 or email information@lymphoma-action.org.uk.

References

The full list of references for this page is available on our website. Alternatively, email publications@lymphoma-action.org.uk or call 01296 619409 if you would like a copy.

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