

Nausea and vomiting (sickness)

This information gives suggestions to help cope with nausea (feeling sick) and vomiting (being sick) as side effects of treatment for lymphoma. We use the word 'sickness' throughout this information to refer to both.

On this page

What causes treatment-related sickness? How might I be affected by sickness? How likely am I to experience sickness? Chemotherapy and sickness Radiotherapy and sickness Targeted drugs and sickness Anti-sickness medication (antiemetics) Non-drug treatments Eating and drinking

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**.

What causes treatment-related sickness?

The **aim of treatment for lymphoma** is to destroy the lymphoma cells. However, it can also cause unwanted side effects.

Sickness can happen as a side effect of treatment if it activates a part of the brain called the chemoreceptor trigger zone (CTZ). The CTZ sends signals to the vomiting centre, which is part of the brain that controls feelings of nausea (feeling sick) and vomiting (being sick).

Chemotherapy, radiotherapy and some targeted drugs can trigger signals to the vomiting centre, via the CTZ.

Nausea and sickness are side effects that people should not expect to put up with. There are so many effective anti-sickness medications and non-drug approaches available. Speak to your medical team for advice about how to manage feeling and being sick.

Charlotte Bloodworth, Advanced Nurse Practitioner in Haematology

How might I be affected by sickness?

You might experience feeling sick (nausea) or being sick (vomiting). Some people get retching or dry heaves. These are automatic movements of the stomach (abdominal) muscles, just as when you vomit – the difference is that, with retching, you don't actually vomit.

Types of sickness

There are different types of sickness: acute, anticipatory, delayed, breakthrough and refractory.

Acute nausea

Acute nausea happens within 24 hours of having treatment. It can start within minutes or hours after treatment and usually goes away within a day.

Delayed nausea

Delayed or 'late' nausea starts after 24 hours of having treatment. This is more common with some **types of chemotherapy drugs** (for example cisplatin, cyclophosphamide, doxorubicin and ifosfamide) given at higher doses on two or more days in a row. It usually peaks after around 2 to 3 days and goes away within about a week.

Anticipatory nausea

Anticipatory nausea happens before (in anticipation of) treatment, usually if you have previously experienced sickness after treatment. Sometimes, without conscious awareness, your brain makes links between having treatment and feeling sick. For example, you might start to feel sick just by going to the hospital. The hospital environment with its sights and smells could trigger the vomiting centre in your brain and lead to sickness. Typically, if anticipatory nausea happens, it starts after 3 or 4 cycles of chemotherapy.

Speak to your medical team if you experience anticipatory nausea so that they can help you to manage it. Because of the psychological basis of anticipatory nausea, **antisickness (antiemetic) medication** usually doesn't help. However, there are other approaches that might help you, including **behavioural strategies** and **complementary therapies**.

Types of sickness that can be more difficult to control

Sometimes, sickness can be more difficult to control. 'Breakthrough sickness' usually starts within 5 days of having treatment, even after having **antiemetics** to prevent it. Usually, it is effectively treated by making changes to your antiemetic medication – for example, the type, dose, or adding another type of drug to your prescription.

Rarely, people have sickness that doesn't respond to treatment with antiemetics ('refractory sickness'). If this instance, your medical team might refer you to doctors who specialise in symptom control (**palliative care**).

In addition to any medication you are given, you might also find **behavioural strategies** or a **complementary therapy** helpful.

How likely am I to experience sickness?

Whether or not you experience sickness depends on lots of individual factors:

- where in your body your lymphoma is: sickness is more common if lymphoma affects your digestive tract, liver or central nervous system (brain, nerves and spinal cord)
- the treatment type and dose you have
- your age: sickness is more common in people who are under 50
- your sex: females are more likely to experience sickness

- whether you are prone to sickness for example, if you have experienced motion sickness, morning sickness during pregnancy, or sickness during previous rounds of treatment
- other illnesses or health conditions such as diabetes, vertigo and a history of migraines
- other medication you might be taking for example, sickness can be a side effect of some pain relief medications and antibiotics
- psychological or emotional factors such as feeling anxious, particularly in the case of **anticipatory nausea**.

Chemotherapy and sickness

Some **chemotherapy drugs** are more likely to cause sickness than others. Your medical team will talk to you about how likely you are to experience sickness based on your particular treatment and **individual factors**, and what they can do to help **prevent** and **manage sickness**.

As a rough guide, we outline the risk based on different types of chemotherapy:

- **High risk of sickness:** cyclophosphamide, carmustine and cisplatin as well as regimens (combinations of drugs) that contain both cyclophosphamide **and** doxorubicin.
- **Moderate risk of sickness:** bendamustine, carboplatin, low-dose cyclophosphamide, high-dose cytarabine, doxorubicin, ifosfamide, oxaliplatin.
- Low risk of sickness: low-dose cytarabine, etoposide, gemcitabine methotrexate, mitoxantrone.
- Very low risk of sickness: bleomycin, fludarabine, vinblastine, vincristine.

Macmillan Cancer Support has an **online tool** where you can search for chemotherapy drugs and find out more about them, including their side effects.

Radiotherapy and sickness

Radiotherapy can trigger signals to the vomiting centre in your brain, causing sickness.

Whether or not you experience sickness as a side effect of radiotherapy depends on various factors including:

- which area(s) of your body receives radiation
- the size of the area(s) that radiation goes to
- how much radiation you have (dose)
- having another type of treatment such as chemotherapy or a targeted drug, **as** well as radiotherapy.

As a rough guide, we outline the risk based on where you receive radiotherapy:

- **High risk of sickness:** radiotherapy to your stomach, gastrointestinal tract, liver, brain, or whole body (known as **total body irradiation** or TBI).
- **Medium risk of sickness:** radiotherapy to the upper tummy (abdomen) or to the brain or spine.
- Low risk of sickness: radiotherapy to the head and neck, chest or pelvis.
- Very low risk of sickness: radiotherapy to the breast(s), arms or legs.

Feeling or being sick can start within a few hours to a few days of having radiotherapy. It usually lasts up to a couple of weeks.

Targeted drugs and sickness

In general, targeted drugs give fewer side effects than radiotherapy and chemotherapy.

As a rough guide, we outline the risk based on which targeted drug you receive:

- Low risk of sickness: brentuximab vedotin, belinostat, bortezomib, temsirloimus.
- Very low risk of sickness: rituximab, nivolumab, obinutuzumab, ofatumumab, pembrolizumab.

Macmillan Cancer Support has an **online tool** where you can search for targeted drugs and find out more about them, including their side effects.

Anti-sickness medication (antiemetics)

Before you start treatment, your medical team considers how likely you are to experience sickness. They look at your treatment plan as well as any other **factors that might increase your chances of sickness**. Based on this information, they decide whether to give you antiemetics to prevent sickness and, if so, which ones.

Antiemetics work in different ways to control sickness. For example, they can disrupt the signal pathway to the vomiting centre in your brain. Some directly affect your stomach and increase the speed at which food moves into your bowel, which lowers the likelihood of sickness.

Your medical team work out how much antiemetic medication you are likely to need, how frequently, and how to have it – by mouth (orally) as a tablet, as an injection, or a combination of the two. They also consider which type of antiemetic medications are likely to work best for you based on your risk of sickness.

If you are unable to keep medication down, your doctor could prescribe medicine as an injection, a drip or as a tablet that you put into your bottom (a suppository).

There are lots of different types of antiemetics. Sometimes, these are used alone and sometimes in combination with others. If one medication doesn't work for you, another one might. Likewise, if you experience side effects of one type, you could ask to try a different one. Speak to your medical team so that they can adjust your antiemetic medication accordingly. You might find it helps to keep a diary of when you're feeling sick. You could show it to your doctor to help them tailor antiemetic medication to you.

For the highest chances of effectiveness, it's important to take you medication exactly as it's prescribed to you. Don't stop taking it without speaking to a member of your medical team first, even if you no longer feel sick.

Steroids

Dexamethasone is a common type of **steroid** used as an antiemetic. It can be particularly effective in treating **refractory nausea**.

Serotonin blockers

Serotonin is a naturally occurring chemical messenger (hormone) in your body. Serotonin blockers work by blocking messages to the vomiting centre in your brain.

Other antiemetics

Cancer Research UK has information about **antiemetics**, including other types such as anti-anxiety drugs and antihistamines, which can be used to help manage sickness.

Cannabis products

Some people ask whether cannabis or cannabidiol (CBD) oil can help with nausea and vomiting. In the UK, cannabis and products made from cannabis are not licensed to treat nausea or vomiting caused by chemotherapy. Very rarely, specialist doctors can prescribe medical cannabis on a case-by-case basis, but only if other treatments haven't been effective and if it is suitable for you. Home-grown cannabis and cannabis bought illegally contain lots of active chemicals in unpredictable amounts, as well as bacteria and fungus, which can cause chest infections. It is not safe to use instead of medical cannabis. This is because you can't control the dose you're getting and it could be contaminated with other chemicals.

Non-drug treatments

Sickness can affect your physical health (for example, leading to dehydration and a lack of nutrients) and your **emotional wellbeing**.

Speak to your medical team for help to manage sickness. As well as **antiemetic medication**, there are **self-help strategies** and **other non-drug approaches** you can use to help manage sickness. We give some examples below. We also have **tips to help with eating and drinking** if you experience sickness.

Self-help strategies

There are various techniques you could try that might help to manage sickness including **identifying triggers**, **distraction**, **imagery** and **progressive muscle relaxation (PMR)**. You might find it helps to get the support from a trained professional – you can then use the techniques once you've learnt the basics. Ask your clinical nurse specialist if they could help you to access or signpost you to such support.

Identify triggers

Try to identify any triggers to your nausea – for example, certain foods, smells, activities or surroundings. You might then be able to avoid or limit your contact with these. For example, if a strong-smelling deodorant makes you feel sick, switch to a fragrance-free one. The people you live or work with might also be able to support you by not wearing strong fragrances when they're with you.

Distraction

Distraction is a way of taking your attention away from feeling sick. You could do this by watching a film, listening to music or playing a game. Children might find stories helpful, particularly if they're involved in creating them or they feature in it.

The mental health charity Mind has suggestions to help with distraction.

Imagery

Some people use imagery as a way of distracting themselves or bringing about relaxation. With imagery techniques, you imagine things in as much detail as possible. For example, you might imagine walking along a beach, and the sights and sounds you would experience. You could use imagery to feel calm before or during treatment, as well as if you feel sick after treatment.

Guided imagery (or guided meditation) involves making use of all of the senses available to you. You imagine being somewhere you'd find calming, such as a forest. You then imagine what you might see, smell taste, hear or touch so that it feels as real as possible. You might also play music or other sounds to help.

The **Headspace website** has more information about **guided imagery**. There are also lots of free resources online to help with imagery techniques. For example, Royal Brompton and Harefield hospitals have some **audio (MP3) guided visualisations** you can listen to.

Progressive muscle relaxation (PMR)

In progressive muscle relaxation, you tense and relax different muscles to release tension. For example, you can focus on tensing the muscles in your legs as you breathe in, hold this, and then letting this go as you breathe out. Repeat this with other groups of muscles, for example, in your toes, shoulders, jaw and arms.

With practice, PMR can help to bring about relaxation and you could try using it, for example, when you are going for treatment or if you feel sick afterwards.

You might also be interested in **our video**, featuring Senior Haematology Oncology Occupational therapist Jennifer Woods and Specialist Haematology Physiotherapist Aimee Green. Within this is an example of a PMR technique (which starts 39 minutes into the video).

Other non-drug approaches

In addition to the **self-help approaches** outlined above, you might be interested in **cognitive restructuring** or a **complementary therapy** to help manage sickness.

Cognitive restructuring

Cognitive restructuring is a type of cognitive behavioural therapy (CBT). It aims to change (restructure) distressing thoughts, feelings and beliefs about your treatment. It can be particularly helpful in managing **anticipatory nausea**. A trained therapist can support you with cognitive restructuring, adapting your thoughts so that you can respond to them in different ways. The **NHS website** and the **British Association for Behavioural and Cognitive Psychotherapies** (BABCP) have more information about CBT.

Complementary therapy

Complementary therapies are used in addition to your lymphoma treatment, not instead of it. Some people find that **complementary therapies**, such as hypnosis, **massage**, **acupuncture** or acupressure (including acupressure bands), help to reduce feelings of sickness. Speak to your medical team before trying a complementary therapy so that they can give you advice about what is safe for you and any safety precautions to take.

Eating and drinking

If you have treatment-related sickness, you might find eating and drinking difficult. For some people, even the **smell of food** could makes them feel sick. We've given some tips below to help with **eating** and **drinking**. You might also find it helps to wear loose-fitting clothes around your waist and tummy, and to avoid lying down soon after eating.

We have separate information about **diet and nutrition**.

Tell your medical team if you can't keep food or drink down so that they can help to ensure that you get the nutrients and liquid you need.

Limit food smells

- Ask other people to prepare your meals for you.
- Cook food in a microwave to minimise its smell.
- Eat foods served at room temperature as hot foods tend to produce stronger smells than cooler foods.
- Avoid or limit foods that have particularly strong smells.

Meals and snacks

- Plan the best times to eat and drink based on when you generally feel least sick.
- Eat food you like but avoid your most favourite foods in case you start to associate them with being sick.
- Plain-tasting carbohydrates, such as toast, crackers, breadsticks, pretzels, rice, pasta, potatoes or noodles, can be easier to tolerate than greasy or very full-flavoured foods.
- Don't force yourself to eat anything that makes you feel sick.
- Try adding ginger to your diet as this might help to alleviate sickness for example, ginger beer, ginger tea, ginger biscuits, ginger cake or root ginger.
- Eat a cracker or a dry biscuit before you get up if you feel sick in the mornings.
- Don't skip meals or snacks. Hunger can make sickness worse.
- Try eating five or six small meals a day instead of three large meals. A full plate can feel overwhelming.

During treatment, fellow patients told me about ginger as being good for combatting nausea, so I used to sit and nibble ginger biscuits and have ginger tea when I got home, which I think made a bit of difference. I also found my appetite was very up and down and often completely disappeared in the days following treatment - it was a case of eating small things when I felt like it rather than worrying about set mealtimes. Callum, affected by treatment-related nausea

Drinks

It is important to drink plenty of fluid, especially if you vomit. It helps to prevent dehydration so your body can function well and cope better with your treatment.

- Drink slowly throughout the day you could carry a bottle of drink with you when you are out and about.
- Choose cool, citrus flavoured, fizzy drinks. These tend to be more soothing than still or hot drinks and can help to settle your stomach.
- Sip drinks slowly through a straw if your treatment affects your sense of taste. This bypasses some of your taste buds.
- Only drink small amounts at mealtimes to avoid feeling too full.

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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