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## Nausea and Vomiting

Cancer and cancer treatment can cause nausea and vomiting. Depending on the type of cancer and treatment, some patients are at higher risk than others. It's important to understand why nausea and vomiting can happen, how they might be prevented, and when to get help.

### Understanding Nausea and Vomiting

Get information about nausea and vomiting and how to talk about it with your health care team and others.

- [Understanding Nausea and Vomiting](#)
- [Nausea and Vomiting Caused by Cancer Treatment](#)

### Managing Nausea and Vomiting

Learn what you can do to help manage and cope with nausea and vomiting.

- [Medicines Used to Treat Nausea and Vomiting](#)
- [Managing Nausea and Vomiting at Home](#)
- [Getting Help for Nausea and Vomiting \[PDF\]](#)

### Video

# Understanding Nausea and Vomiting

Many people with cancer will have nausea and vomiting. These symptoms are most often side effects of cancer treatment but can also have other causes.

- **Nausea** is feeling queasy, sick to your stomach or as if you might throw up.
- **Vomiting** is throwing up the food and liquid in your stomach. Nausea can lead to vomiting, and sometimes nausea and vomiting happen at the same time. But they can be totally separate problems, too.
- **Retching** is trying to vomit but nothing comes up from your stomach. This is also called gagging or dry heaves.

- [Types of nausea and vomiting in people with cancer](#)
- [What causes nausea and vomiting in people with cancer?](#)
- [Symptoms of nausea and vomiting](#)

## Types of nausea and vomiting in people with cancer

**Acute nausea and vomiting** happen minutes to hours after treatment is given. It usually goes away within a day.

**Delayed nausea and vomiting** start more than 24 hours after treatment and can last for a few days. This happens most often with certain types of chemotherapy, such as cisplatin, carboplatin, cyclophosphamide (Cytosan) or anthracyclines such as doxorubicin.

**Anticipatory nausea and vomiting** happen before a treatment begins. This happens when a person comes across sights, sounds, and smells that their brain connects with nausea and vomiting. This happens most often in people whose nausea and vomiting were not well controlled during prior treatments.

**Breakthrough nausea and vomiting** happen even though treatment has been given to try to prevent it. When this happens, you may need more or other medicines to control current symptoms. And your cancer care team probably will need to change the

medicines they give you for future treatments.

**Refractory vomiting** is what happens when the medicines you're getting to prevent or control nausea and vomiting are not working. This means you may need more or different medicines to stop the nausea and/or vomiting.

## What causes nausea and vomiting in people with cancer?

Nausea and vomiting in people with cancer can be caused by many things, such as:

- Cancer treatment such as chemotherapy, radiation therapy, targeted drug therapy, or immunotherapy
- Cancer that affects the brain or abdomen (belly)
- Medicines used to help with side effects of cancer or treatment
- Medicines given for other health problems
- Bowel slowdown or blockage (obstruction)
- [Constipation](#)<sup>1</sup>
- [Infections](#)<sup>2</sup>
- [Anxiety](#)<sup>3</sup>
- [Pain](#)<sup>4</sup>
- [Dehydration](#)<sup>5</sup>

Not all people who get treated for cancer have nausea and/or vomiting. Your risk for having nausea or vomiting depends on the type of cancer being treated and the type of treatment and dose being given.

## Symptoms of nausea and vomiting

People with nausea may feel queasy, sick to their stomach and as if they might throw up.

Having nausea and vomiting can also lead to other symptoms, such as:


- Pain in the abdomen (belly)
- Bloated or swollen belly
- Headache
- [Fatigue](#)<sup>6</sup>
- [Lack of appetite](#)<sup>7</sup>

- [Weight loss](#)<sup>8</sup>
- Dizziness or weakness
- Not making as much urine (pee) as usual

Some of these symptoms are caused by [dehydration](#)<sup>9</sup> or not having enough fluid in the body. If nausea and vomiting continue, you might not be able to take in enough fluid and food to meet your body's need. Let your cancer care team know if:

- You can't keep fluids down

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# **Nausea and Vomiting Caused by Cancer Treatment**

- [Questions to ask about nausea and vomiting](#)

## Chemotherapy and other medicines to treat cancer

Nausea and vomiting from chemotherapy are often called **chemotherapy-induced nausea and vomiting (CINV)**. Chemotherapy affects all parts of the body so it is more likely to cause nausea and vomiting than many other cancer treatments.

There are other factors that can help your cancer care team know how likely you are to have nausea and vomiting. Some of these are:

- The dose of the chemotherapy and other anti-cancer medicines you get (higher doses can be more likely to cause nausea and vomiting).
- How the medicines are given (chemo given through a vein may cause nausea and vomiting faster than when it's given by mouth).
- Having a tumor in the brain, liver, or gastrointestinal tract may increase the risk for nausea and vomiting.
- Taking other medicines (such as pain medicines) that may cause or make nausea or vomiting worse.
- Being constipated.
- Having an infection.

Your risk of nausea and vomiting may also be affected by personal differences, such as if you:

- Are female
- Are younger than 50 years of age
- Had morning sickness during pregnancy
- Are very anxious or nervous
- Have had motion sickness (nausea from motion during travel, like in a car)
- Tend to vomit when you are sick
- Are a non-drinker or light drinker (of alcohol)
- Had nausea and vomiting during cancer treatment in the past

## Radiation therapy

Nausea and vomiting can also be caused by [radiation therapy](#)<sup>5</sup>. The risk of having these

side effects with radiation are related to:

**The part of the body being treated.** Nausea and vomiting happen more often when people get radiation to the abdomen (belly), liver, or brain. Nausea and vomiting also happen more often when people get radiation to their whole body (total body irradiation (TBI) to get ready for a [stem cell or bone marrow transplant](#)<sup>6</sup>.

**The dose of radiation and the treatment schedule.** The larger the dose of radiation, the higher the risk for nausea and vomiting. Radiation treatment is often given in smaller doses over a period of time to decrease this risk.

**If chemotherapy is given along with the radiation.** Getting radiation while also getting chemotherapy can increase the risk of nausea and vomiting.

## Questions to ask about nausea and vomiting

Ask your cancer care team:

- Is my cancer treatment likely to cause nausea and vomiting?
- Can my nausea and vomiting be prevented or controlled?
- How will you decide which anti-nausea/vomiting treatments I should use?
- How much will the anti-nausea medications cost?
- Do the anti-nausea/vomiting treatments you want me to use have side effects?
- When and how often should I take each medicine?
- What will we do if the treatment doesn't control my nausea and vomiting?
- At what point do I need to call if I still feel nausea or still vomit after taking the medicine?

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html)
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# Vomiting

It is important to control nausea and vomiting as much as possible. These symptoms can affect your daily life, and mental and physical health. Nausea and vomiting can cause cancer treatment delays and make it hard for you to continue treatment. Relieving these side effects can help you better deal with your treatments and keep them on schedule.

Many medicines are used to help prevent and control nausea and vomiting. Which ones you get will depend on how likely your treatment is to cause nausea and vomiting and how the medicines worked for you during past treatment.

- [Types of anti-nausea and vomiting medicines \(anti-emetics\)](#)
- [How are anti-emetics medicines given?](#)
- [Cost of anti-emetics](#)
- [How does my cancer care team know what anti-emetics to give to me?](#)
- [Treating nausea and vomiting caused by cancer medicines](#)
- [Treating nausea and vomiting caused by radiation therapy](#)

## Types of anti-nausea and vomiting medicines (anti-emetics)

There are different pathways in your body that can cause nausea and vomiting. Some of these pathways are in the brain while others are in the digestive tract (esophagus, stomach, and intestines). Which pathways are affected depends on the treatment you are getting. Anti-emetics help block these pathways.

Anti-emetic medicines are grouped by how they work in the body to prevent nausea and vomiting. Each group of medicines works in a different way. They are often combined to be most effective.

The following anti-emetics are the ones used most often to prevent and treat nausea and vomiting.

**Serotonin (5-HT<sub>3</sub>) antagonists** (examples include ondansetron, granisetron, dolasetron, and palonosetron)

- Work best when given on a schedule before and during chemo treatment.
- Don't make you sleepy but might cause headache and constipation.





side effects.

## **Cost of anti-emetics**

Medicines used to prevent and treat nausea and vomiting can be expensive. The cost to you will depend on:

- Whether you have prescription insurance and how much of the cost it covers
- Whether you are given a brand name or generic medicine (if available)
- How the anti-emetic is given (pill or liquid you swallow, by IV, or a patch on your skin)

You might need to get pre-approval from your health insurance or prescription plan before your anti-emetics will be covered. Ask your cancer care team about the cost of these medicines, what your options are, how many pills you might need during treatment, and what you might have to pay out of pocket.

## **How does my cancer care team know what anti-emetics to give to me?**

Cancer treatments are grouped by how likely they are to cause nausea or vomiting (emetogenic potential).

- High risk: 9 in 10 people will have nausea and vomiting
- Moderate risk: 3 to 9 in 10 people will have nausea and vomiting
- Low risk: 1 to 3 in 10 people will have nausea and vomiting
- Minimal risk: Less than 1 in 10 people will have nausea and vomiting

Treatment to prevent or manage nausea and vomiting is based on this risk. The goal is to prevent nausea and vomiting as much as possible. You will likely need to take more than one medicine to manage this symptom.

## **Treating nausea and vomiting caused by cancer medicines**

The anti-emetic medicine you get depends on how likely your treatment is to cause nausea and vomiting. No one medicine can prevent or control nausea and vomiting all the time. People often get more than one type of anti-emetic since they block different causes of nausea and vomiting.

Your cancer care team will look at a number of factors when choosing the best plan to help prevent and manage nausea and vomiting with your treatment. They will:

- Look at how likely it is you will have nausea and vomiting during your cancer treatment
- Look at guidelines and research to see what anti-nausea medicines are recommended
- Ask about your history of nausea and vomiting
- Ask how well any anti-nausea medicines have worked for you before
- Look at side effects of the anti-emetics
- Make changes as needed to help keep you from having nausea and vomiting

It's easier to prevent nausea and vomiting than stop it once it starts. That is why anti-l...

- How likely your radiation treatment is to cause nausea and vomiting
- Your history of nausea and vomiting
- How well any anti-nausea medicines have worked for you before
- Side effects of the anti-nausea medicines

They will then make changes as needed to help keep you from having nausea and vomiting

Anti-nausea and vomiting medicines are often given on a regular schedule around the clock. Your cancer care team may tell you to take the medicines on schedule even if you don't have any nausea or vomiting.

Sometimes, you may take the medicine "as needed" . This means you take the medicine at the first sign of nausea to keep it from getting worse. Ask your cancer care team the best way to take your anti-nausea and vomiting medicines.

## References

American Society of Clinical Oncology. Nausea and vomiting. cancer.net. Accessed March 6, 2024.

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## Managing Nausea and Vomiting at Home

Taking medicine is the main part of managing nausea and vomiting. But there are other things you can do that can help as well.

- [Eating and drinking when you have nausea](#)
- [Tips if you are vomiting](#)
- [Complementary and integrative treatments for nausea and vomiting](#)
- [Call your doctor or cancer care team if you](#)
- [Go to the emergency room or call 911 if you](#)

### Eating and drinking when you have nausea

You may not feel like eating or drinking when you have nausea and vomiting. But try to drink as much fluid as you can so that you don't get [dehydrated](#)<sup>1</sup>. And eat enough so that your stomach isn't too empty. Try the following:

- Sip liquids slowly throughout the day. Cold, clear liquids may be the easiest on your stomach. (Clear liquids are those you can see through, such as ginger ale, apple juice, broth, tea, etc.)
- Eat small snacks and meals several times a day. If your stomach is empty, your nausea might be worse.
- Eat bland foods that are easy on your stomach, such as crackers, toast, clear broth, plain yogurt, or sherbet.
- Eat something light like pretzels or crackers with medicines unless you have been told to take them on an empty stomach.
- Sour foods, such as sour candy, pickles, lemons, or lime might help with nausea.
- Eat foods when they are cool or at room temperature, so their smell isn't as strong.
- Try popsicles or gelatin.

- Suck on hard candy with pleasant smells, such as lemon drops or mints, to help get rid of bad tastes.
- Try small amounts of foods high in calories that are easy to eat (such as pudding, ice cream, sherbets, yogurt, and milkshakes).
- Avoid fried, spicy, or greasy foods.

When deciding what to eat, choose the foods that sound good to you. Your body may handle them better. And **stay away from your favorite foods** so you don't link them with feeling sick after you finish treatment.

You might find eating and drinking easier if you:

- Avoid strong food and drink smells. Ask someone else to prepare cooked food for you.
- Eat in a cool, well-ventilated space without smells that bother you.
- Try to rest quietly while sitting upright for at least an hour after each meal.
- Plan to eat when it is best for you. Some people do better if they eat a snack before treatment. Other people feel better if they don't eat for a while before treatment.

## Tips if you are vomiting

- If you are in bed, lie on your side so that you won't inhale the vomit.
- Take [anti-emetics](#) at the first hint of nausea to try and prevent vomiting.
- While waiting for your nausea medicine to work, relax and take slow, deep breaths.
- Distract yourself with soft music, a favorite TV program, or the company of others.
- Ask if your medicines can be given in a form that you can handle best, such as dissolving tablets or suppositories.
- Wait for the vomiting to stop before eating or drinking anything. After vomiting stops, start taking in small amounts of clear liquids slowly and increase as tolerated.
- Try ice chips or frozen juice chips, which can be dissolved in your mouth, to get more liquids.

## Complementary and integrative treatments for nausea and vomiting

Anti-nausea and vomiting medicines (anti-emetics) are the main treatments for nausea



and vomiting. But some non-medicine treatments may also be used.

[Complementary and integrative treatments](#)<sup>2</sup> may be used alone for mild nausea or [anticipatory nausea and vomiting](#). These methods can also be used with anti-emetics if your cancer treatment is likely to cause nausea and vomiting.

These methods try to decrease nausea and vomiting by:

- Helping you feel relaxed
- Distracting you from what's going on
- Helping you feel in control
- Making you feel less helpless

If you'd like to try one or more of these methods, ask your cancer care team if the methods are safe for you. They may also be able to help you find a therapist trained in these techniques.

Studies have found that some integrative methods can be helpful for nausea and vomiting. These include:

### **Relaxation techniques**

[Relaxation techniques](#)<sup>3</sup> such as meditation (focusing the mind), breathing exercises, or progressive muscle relaxation (tensing and relaxing the muscles) can help decrease nausea and vomiting.

Biofeedback is sometimes used to support relaxation techniques for nausea and vomiting. It uses devices to look for signs of stress to help you focus on relaxation.

### **Guided imagery**

[Guided imagery](#)<sup>4</sup> helps people imagine that they are in a place that's relaxing for them. Imagining what you would feel, hear, see, and taste in the pleasant place, might help you mentally block the feelings of nausea and vomiting.

### **Acupuncture**

Acupuncture is a traditional Chinese method in which very thin needles are put into the skin at certain points of the body. Some people have reported that acupuncture helped with their nausea. But research studies have not shown a clear benefit.

Acupuncture should only be done by a licensed, certified acupuncturist. Ask your cancer care team if it is safe for you to get acupuncture. Also ask for ideas about where to get acupuncture if you want to pursue it.

### **Other complementary and integrative methods**

There are other methods that some reports say might help manage nausea and vomiting. However, research hasn't shown that they clearly help. These include:

#### **Ginger**

There are studies looking at whether ginger can help with nausea and vomiting. But the results are hard to use because it is not clear how much is needed and the best way to take it. If you are using or would like to use ginger, be sure to talk to your doctor or cancer care team as there can be side effects.

#### **Hypnosis**

Hypnosis creates a state of intense attention, willingness, and readiness to accept an idea. Working with a trained specialist might help you to control how your brain and body respond to the feeling of nausea so that it bothers you less.

#### **Acupressure**

Based on acupuncture, acupressure uses pressure rather than needles on certain points on the body. Acupressure on certain points on the body has helped some people with nausea. But studies haven't found it to work as well as acupuncture.

#### **Aromatherapy with peppermint oil**

Some people find using aromatherapy with peppermint oil helpful in lowering their nausea and vomiting from cancer treatment. The oil can be inhaled, rubbed on the skin, or put on a cold cloth that is placed on the head. Research does not state what strength should be used and how often.

#### **Music therapy**

Music therapists are trained to use music to help people with symptoms, such as nausea and vomiting. A few studies seem to show that, when used with standard treatment, music therapy can help to reduce nausea and vomiting from chemo.

## Call your doctor or cancer care team if you

- Might have inhaled some of your vomit
- Have been vomiting for 2-3 days
- Can't take medicines
- Your anti-nausea medicines aren't working
- Cannot take in more than 4 cups of liquid or ice chips in a day or haven't eaten for more than 2 days
- Lose 2 or more pounds in 1 to 2 days (This means you are losing water quickly and might be getting dehydrated.)
- Have dark yellow urine or don't urinate as often or as much as usual

## Go to the emergency room or call 911 if you

- Vomit blood or material that looks like coffee grounds
- Become weak, dizzy, or confused

## Hyperlinks

1. [www.cancer.org/cancer/managing-cancer/side-effects/eating-problems/fluids-and-dehydration.html](http://www.cancer.org/cancer/managing-cancer/side-effects/eating-problems/fluids-and-dehydration.html)
2. [www.cancer.org/cancer/managing-cancer/treatment-types/complementary-and-integrative-medicine/complementary-and-alternative-methods-and-cancer.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/complementary-and-integrative-medicine/complementary-and-alternative-methods-and-cancer.html)
3. [www.cancer.org/cancer/survivorship/coping/practice-mindfulness-and-relaxation.html](http://www.cancer.org/cancer/survivorship/coping/practice-mindfulness-and-relaxation.html)
4. [www.cancer.org/cancer/survivorship/coping/practice-mindfulness-and-relaxation.html](http://www.cancer.org/cancer/survivorship/coping/practice-mindfulness-and-relaxation.html)

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