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# Nausea and Vomiting

## Understanding Nausea and Vomiting

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

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## Managing Nausea and Vomiting

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# Understanding Nausea and Vomiting

Nausea can be described as having a sick or uncomfortable feeling in the back of your throat and stomach. There are many other words describing the feeling of nausea, including "sick to one's stomach", "queasy", or "upset stomach". Other symptoms can happen at the same time as nausea, such as increased saliva (spit), dizziness, light-headedness, trouble swallowing, skin temperature changes, and a fast heart rate.

Vomiting is also described as "throwing up." Nausea can lead to vomiting, and

sometimes nausea and vomiting happen at the same time, but they can be totally separate problems, too. When you vomit, your stomach muscles contract (squeeze) and push the contents of your stomach (liquids and food) out through your mouth.

Retching is when your body tries to vomit without bringing anything up from your stomach. Other words used to describe retching are gagging or having the dry heaves.

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

Nausea and/or vomiting in the person with cancer can be caused by many different things, such as:

- Cancer treatments
- The cancer itself, especially if it's in or affecting the brain or abdomen (belly)
- Other medicines given for health problems that are not cancer-related
- Bowel slowdown or blockage (obstruction)
- [Constipation](#)<sup>1</sup>
- Inner ear problems
- An imbalance of minerals and salts (electrolytes) in the blood
- [Infections](#)<sup>2</sup>
- [Anxiety](#)<sup>3</sup>
- The expectation of vomiting because of vomiting before in the same setting (this is called **anticipatory vomiting**)
- Other diseases or illnesses

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

Chemotherapy and other drugs used to treat cancer travel throughout the body while radiation therapy treats one part of the body where the cancer is located. For this reason, chemotherapy and some other drugs used for cancer treatment cause more nausea and vomiting than radiation therapy. If you are getting chemotherapy, you might hear your cancer care team refer to it as chemotherapy-induced nausea and vomiting (CINV). Your cancer care team knows which treatments have a higher risk for CINV because studies have shown that certain drugs used to treat cancer are more likely to cause nausea and vomiting than other others. Chemo and other drugs used to treat cancer are classified according to their emetogenic potential (how likely the drug will cause nausea or vomiting) as high, moderate, low, or minimal risk. Anti-nausea drugs are used to help control and even prevent nausea and vomiting depending on this risk.

You may hear them called anti-emetics.

Every person with cancer who's getting treatments that cause nausea or vomiting can, and should, get medicines to keep this from happening or to control it. Talk to your doctor for more information or if you have questions about your risk for nausea and vomiting.

## What makes nausea and vomiting occur?

The exact way that nausea and vomiting occur is still not fully understood, but studies have shown a pathway in the brain that is triggered and sends signals to make it happen. When you are given cancer treatment that can cause nausea:

- A certain area of the brain is triggered and sends signals to other parts of the body
- Certain areas of the esophagus (the tube that connects the mouth to the stomach), stomach, small intestine, and large intestine are triggered
- These triggers activate a reflex pathway that leads to nausea and vomiting
- Anti-nausea (anti-emetic) drugs to block different parts of this pathway can be used to control and prevent nausea and vomiting.

## Health problems caused by nausea and vomiting

Nausea and vomiting are some of the most unpleasant side effects of cancer treatment, but they have become less of a concern due to more effective treatment for them. They rarely become life-threatening.

Still, nausea and vomiting can make it hard to get the nutrition your body needs. Nausea can make you not want to eat or drink anything, and repeated vomiting can lead to [dehydration](#)<sup>4</sup>, which is a lack of fluids and minerals your body needs. If nausea and vomiting persist, they can quickly become a serious problem. Be sure to let your cancer care team know right away if either of these happen:

- You can't keep fluids down
- You're vomiting for 24 hours or longer

Vomiting can also cause [tiredness \(fatigue\)](#)<sup>5</sup>, trouble concentrating, slow wound healing, weight loss, and [loss of appetite](#)<sup>6</sup>. It can interfere with your ability to take care of yourself and may lead to changes in your treatment plan.

## Questions to ask about nausea and vomiting

Ask your cancer care team these questions:

- 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/treatment/treatments-and-side-effects/physical-side-effects/stool-or-urine-changes/constipation.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/stool-or-urine-changes/constipation.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/low-blood-counts/infections.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/low-blood-counts/infections.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/emotional-mood-changes/anxiety.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/emotional-mood-changes/anxiety.html)
4. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fluids-and-dehydration.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fluids-and-dehydration.html)
5. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fatigue.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fatigue.html)
6. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/eating-problems/poor-appetite.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/eating-problems/poor-appetite.html)

## References

Blanchard EM, Hesketh PJ. Nausea and vomiting. In DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology*. 11th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2019:2078-2085.

Brant JM, Stringer LH. Chemotherapy-Induced nausea and vomiting. In Brown CG, ed. *A Guide to Oncology Symptom Management*. 2nd ed. Pittsburgh, PA: Oncology

Nursing Society; 2015:171-196.

Cancer.Net. Nausea and vomiting. 2018. Accessed at <https://www.cancer.net/coping-with-cancer/physical-emotional-and-social-effects-cancer/managing-physical-side-effects/nausea-and-vomiting> on September 5, 2019.

Hainsworth JD. Nausea and vomiting. In Niederhuber JE, Armitage JO, Kastan MB, Doroshow JH, Tepper JE, eds. *Abeloff's Clinical Oncology*. 6th ed. Philadelphia, PA: Elsevier; 2020: 599-606.e3.

National Cancer Institute (NIH). *Treatment-related nausea and vomiting (PDQ®)*- Health Professional Version. 2018. Accessed at <https://www.cancer.gov/about-cancer-treatment/side-effects/nausea/nausea-hp-pdq> on September 6, 2019.

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## Nausea and Vomiting Caused by Cancer Treatment

Cancer treatments, such as [chemotherapy](#)<sup>1</sup> or [radiation therapy](#)<sup>2</sup> can cause nausea and vomiting. Some other drugs, such as [targeted therapy](#)<sup>3</sup> and [immunotherapy](#)<sup>4</sup> can cause nausea and vomiting too. There many different kinds of each type of treatment. Some can make you have nausea and/or vomiting while others might not. Sometimes the type of cancer you have can make you have nausea and vomiting too.

How likely you are to have nausea and vomiting while getting treatment depends on many things. Some of these are:

- The types of treatment used. Drugs that travel through the body are more likely to cause nausea and vomiting than treatment that only affects one area of the body, such as radiation therapy. And, some drugs are more likely than others to cause nausea and vomiting
- The dose of the drugs (higher doses can be more likely to cause nausea and vomiting, especially certain chemo drugs)
- When and how often the drug is given. For example, if doses of a chemo drug that

causes nausea and vomiting are given close together, there's less time for the person to recover from the effects of the last dose before the next one is given.

- How the drugs are given. For instance, chemo given through a vein (intravenous, or by IV) may cause nausea and vomiting much faster than a drug given by mouth. This is because the drug given by IV is absorbed faster.
- Individual differences – not every person will have the same response to a dose or type of treatment.
- Having a tumor in the brain, liver, or gastrointestinal tract may increase the risk for nausea and vomiting.
- Other drugs (such as pain medicines) that may cause or worsen nausea and/or vomiting.

Some personal risk factors that may make you more likely to have nausea and vomiting include:

- Being female
- Being younger
- Having had morning sickness during pregnancy
- Being very anxious or nervous
- Having ever had motion sickness
- Being prone to vomiting when you are sick
- Having been a non-drinker or light drinker (of alcohol)
- Having had chemo in the past

There's no way to know for sure if you will have nausea and vomiting, but your doctor will consider these things when choosing anti-nausea and vomiting medicines to use with your cancer treatment.

## **Nausea and vomiting due to chemo and other drugs that treat cancer**

You may hear [treatment-related nausea and vomiting](#) also referred to as chemotherapy-induced nausea and vomiting (CINV). If you're getting a drug to treat cancer, be sure to talk to your cancer care team about what kind of drug it is and how likely it is to cause nausea and vomiting.

There are different types of nausea and vomiting, depending on when they happen.

**Acute nausea and vomiting** usually happens within minutes to hours after treatment is

given, and usually within the first 24 hours. This is more common when treatment is given by IV infusion or when taken by mouth.

**Delayed nausea and vomiting** usually starts more than 24 hours after treatment and can last up to a few days after treatment ends. It's more likely with certain types of chemo or other drug to treat cancer. Ask your doctor if the treatment you're getting is known to cause delayed nausea and vomiting.

**Anticipatory nausea and vomiting** is a learned or conditioned response. It appears to be the result of previous experiences with treatment that led to nausea and vomiting, in which the brain pairs some parts of the treatment such as the sights, sounds, and smells of the treatment area with vomiting. Anticipatory nausea and/or vomiting can happen before or during treatment is given.

**Breakthrough nausea and vomiting** happens even though treatment has been given to try to prevent it. When this happens, you may need more or different medicines to help prevent further nausea and vomiting.

**Refractory vomiting** is when you're getting medicines to prevent or control nausea and vomiting, but the drugs are not working. Your nausea and vomiting have become refractory (no longer respond) to the medicines you're getting to prevent it. This means you may need more or different medicines to stop the nausea and/or vomiting. Refractory vomiting may happen after a few or even after several chemo treatments.

## **Anti-nausea and vomiting medicines used for drugs used to treat cancer**

Medication to treat nausea and vomiting is called anti-emetic therapy. What medication is given and how often you take it is based on how likely the chemo or other drug is expected to cause nausea and vomiting. It's easier to prevent nausea and vomiting than it is to stop it once it starts. No one drug can prevent or control treatment-related nausea and vomiting 100% of the time. This is because treatments act on the body in different ways and each person responds to chemo and to anti-nausea and vomiting drugs differently.

To choose the best treatment plan for you, the doctor will:

- Consider how likely your treatment is to cause nausea and vomiting
- Look at current research and guidelines that tell the doctor what anti-nausea medicines work best for the treatment you're receiving
- Select medicines based on whether the treatment for cancer is known to affect the

vomiting center in the brain

- Ask about your history of nausea and vomiting
- Ask how well any anti-nausea medicines have worked for you before
- Consider side effects of the anti-nausea medicines
- Prescribe the lowest effective dose of the anti-nausea medicine before treatment is given
- 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 doctor might encourage you to take them on a schedule even if you don't have any nausea or vomiting. Sometimes, you may take the medicine on an "as needed" schedule. This means you take the medicine at the first sign of nausea to keep it from getting worse. Ask your cancer care team how you should take these drugs.

- Preventive medication should start **before** the treatment is given.
- Medication should **continue** for as long as the cancer treatment is likely to cause vomiting, which may be different for different people based on the type of chemo drug given.

Each time you start a new cycle of chemo, be sure to tell your cancer team what did and didn't work the last time.

## Nausea and vomiting due to radiation therapy

Nausea and vomiting can be caused by [radiation](#)<sup>5</sup> [therapy](#)<sup>6</sup> based on:

**The part of the body being treated.** The risk is greatest when the brain is treated, or the area of the body being treated includes a large part of the upper abdomen (belly) – mainly the small intestine (or small bowel) and/or the liver.

Total body irradiation (used in [stem cell transplants](#)<sup>7</sup>) is linked to a high risk of nausea and vomiting if treatment is not given to prevent it. Patients may also get high doses of [chemo](#)<sup>8</sup> to prepare for transplant, which further raises the chance of nausea and vomiting.

**The dose of radiation given.** The bigger the dose of radiation given, the higher the risk for nausea and vomiting.

**How often the treatment is given.** People who get one large dose of radiation have a



greater chance of nausea and vomiting than those who get radiation that is spread out over smaller doses.

**If chemotherapy or another drug to treat cancer is given along with the radiation.**

When radiation is given along with chemo, the anti-emetic treatment used is based on the nausea and vomiting risk of the chemo drugs given.

**Anti-nausea and vomiting medicines used for radiation therapy**

If your radiation treatment is likely to cause nausea and vomiting, your doctor will probably give you medicines to help prevent it each day before you get radiation. Anti-nausea and vomiting medicines may be given by mouth or into a vein, or both.

To choose the best treatment plan, the doctor will:

- Consider how likely the radiation is to cause nausea and vomiting
- Ask about your history of nausea and vomiting
- Ask how well any anti-nausea medicines have worked for you before
- Consider side effects of the anti-nausea medicines
- Prescribe the lowest effective dose of the anti-nausea medicine before radiation therapy is given
- Make drug 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 doctor may encourage you to take them on a 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 how you should take your anti-nausea and vomiting medicines.

**Hyperlinks**

1. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/targeted-therapy.html)
4. [www.cancer.org/treatment/treatments-and-side-effects/treatment-](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-)

- [types/immunotherapy.html](#)
5. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html)
  6. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/radiation.html)
  7. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/stem-cell-transplant.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/stem-cell-transplant.html)
  8. [www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html](http://www.cancer.org/treatment/treatments-and-side-effects/treatment-types/chemotherapy.html)

## References

Blanchard EM, Hesketh PJ. Nausea and vomiting. In DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology*. 11th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2019:2078-2085.

Brant JM, Stringer LH. Chemotherapy-induced nausea and vomiting. In Brown CG, ed. *A Guide to Oncology Symptom Management*. 2nd ed. Pittsburgh, PA: Oncology Nursing Society; 2015:171-196.

Cancer.Net. Nausea and vomiting. 2018. Accessed at <https://www.cancer.net/coping-with-cancer/physical-emotional-and-social-effects-cancer/managing-physical-side-effects/nausea-and-vomiting> on September 5, 2019.

Hainsworth JD. Nausea and vomiting. In Niederhuber JE, Armitage JO, Kastan MB, Doroshow JH, Tepper JE, eds. *Abeloff's Clinical Oncology*. 6th ed. Philadelphia, PA: Elsevier; 2020:599-606.e3.

Hesketh PJ et al. Antiemetics: ASCO guideline update. *Journal of Clinical Oncology*. 2020;38(24). Accessed at <https://ascopubs.org/doi/10.1200/JCO.20.01296> on September 10, 2020.

National Cancer Institute (NIH). *Treatment-related nausea and vomiting (PDQ®)- Health Professional Version*. 2018. Accessed at <https://www.cancer.gov/about-cancer-treatment/side-effects/nausea/nausea-hp-pdq> on September 6, 2019.

National Comprehensive Cancer Network (NCCN). *Antiemesis*. 2019. Version 1.2019. Accessed at [https://www.nccn.org/professionals/physician\\_gls/pdf/antiemesis.pdf](https://www.nccn.org/professionals/physician_gls/pdf/antiemesis.pdf) on September 9, 2019.

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# Managing Nausea and Vomiting at Home

Many drugs or combination of drugs are available to help prevent and control vomiting. These may also control nausea.

Your body has several different pathways that trigger nausea and vomiting. Anti-nausea and vomiting drugs (sometimes called **anti-emetics**) have been developed to target and block these pathways. Some of these drugs target the vomiting center in the brain, while others work as rescue therapy if the initial nausea medicine doesn't work. Based on this knowledge, and the treatment's potential to cause nausea and vomiting, your doctor will recommend certain anti-nausea and vomiting medicines. **You might have to try a few different drugs to find the ones that work best for you.**

## Types of anti-nausea and vomiting drugs

Anti-emetic drugs are grouped by how they work in the body on different [types of nausea and vomiting](#). It's important to remember that the groups of drugs work differently. One drug might not work as well for you as it does for someone else, depending on the type of nausea and vomiting you might have.

- **Serotonin (5-HT3) antagonists** block the effects of serotonin, a substance that commonly triggers nausea and vomiting. These drugs are effective at controlling **acute** nausea and vomiting and are usually given before chemo and then for a few days afterward. (Examples: Ondansetron, Granisetron, Dolasetron, Palonosetron)
- **NK-1 receptor antagonists** block the effects of the NK-1 receptor, a receptor that is a part of the vomiting reflex. These drugs help with **delayed** nausea and vomiting and are sometimes used to help with **acute** nausea and vomiting. They're often given with other anti-nausea medicines. (Examples: Aprepitant, Rolapitant, Fosaprepitant)
- **Steroids** are often given with other anti-emetic drugs to better prevent nausea and vomiting. They might be given before or after treatment. Sometimes steroids are not used for nausea and vomiting because of their side effects that might affect other health problems a patient has. (Example: Dexamethasone)

- **Dopamine antagonists** target dopamine to help prevent this substance from binding to areas in the brain that trigger nausea and vomiting. Many times these drugs are given when nausea and vomiting is **not well controlled** by other drugs. (Examples: Prochlorperazine, Metoclopramide)
- **Benzodiazepines, sometimes called anti-anxiety drugs** can help reduce nausea and vomiting by reducing anxiety and helping the person feel more calm and relaxed. These drugs may be more helpful with patients who experience **anticipatory** nausea and vomiting and are often used in combination with other anti-nausea drugs. (Examples: Lorazepam, Alprazolam)
- **Cannabinoids** contain the active ingredient in marijuana. These drugs may be used to treat nausea and vomiting from chemo when the usual anti-emetic drugs don't work. They also may be used to stimulate appetite. Talk to your doctor about any side effects you might experience while using cannabinoids. (Example: Dronabinol, Nabilone)
- **Olanzapine** is a newer drug used to treat nausea and vomiting. It has been shown to be helpful in reducing **breakthrough and delayed** nausea and vomiting. It's often an option for people getting high doses of chemo as part of a bone marrow or stem cell transplant. It can make you sleepy, so talk to your doctor about the side effects you might have while using Olanzapine.

The drug names given above are only examples. This is **not** a complete list of the drugs in each group.

### Cost of anti-nausea and vomiting drugs

Many of these drugs can be expensive and you might need pre-approval from your health insurance before they will be covered. Others are available as generic drugs and cost a lot less than the name brands. Don't be afraid to ask your cancer care team about the cost of these drugs, what your options are, and what you might have to pay out of pocket. It's important to think about how many pills you may need to get you through your treatment. Be sure you talk to your insurance company about how many pills are covered for each prescription, and let your doctor know if you think you might not have enough to get you through until your next appointment.

### How are anti-nausea and vomiting medicines given?

There are many ways to take anti-nausea and vomiting medicines. For instance, you may be able to take them:

- Through an IV (intravenously)
- By mouth as a pill or liquid you swallow
- As a tablet that dissolves under your tongue
- As a suppository
- Through a patch that sticks to your skin

Your doctor will consider the following things when deciding the best way to give your anti-emetics:

- How likely it is that the cancer treatment will cause nausea and vomiting
- How bad your nausea and/or vomiting is
- The easiest way for you to take the medicine
- What you prefer
- How quickly the drug will start working
- Your medical insurance coverage (many of these drugs are very expensive, especially in IV form)

If the drugs used at first don't work, your doctor can switch you to another drug or add a new drug. Another option is to give the drugs a different way (by a different route). Taking pills by mouth is often the best, easiest, and cheapest way to prevent nausea and vomiting. But if you're already vomiting, or you can't swallow and keep things down, the medicine might need to be given another way.

Let your doctor know if you are still having problems despite treatment. Don't let nausea and vomiting make you feel bad and keep you from getting the [nutrition your body needs during treatment](#)<sup>1</sup>. There's no reason for you to have uncontrolled nausea and vomiting. There are many drugs that can be used to prevent and treat these side effects.

## **Complementary or alternative (non-drug) treatments for nausea and vomiting**

Anti-nausea and vomiting drugs (anti-emetics) are the main treatments for nausea and vomiting, but some [non-drug treatments](#)<sup>2</sup> can also be used. These involve using your mind and body with the help of a qualified therapist.

Non-drug treatments may be used alone for mild nausea, and are often helpful for [anticipatory nausea and vomiting](#). These methods can be used with anti-nausea and vomiting medicines for a person whose cancer treatment is likely to cause nausea and

vomiting. If you'd like to try one or more of these methods, ask a member of your cancer care team if the methods are safe for you and to refer you to a therapist trained in these techniques.

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

Below are some non-drug methods that have helped some people. Most of them have few or no side effects. **Before using any of these treatments, check with your cancer care team to see if they are safe for you.** Ask your cancer care team what non-drug treatments they may have available and which ones they can recommend.

## Hypnosis

Hypnosis can be used to make behavior changes to control nausea and vomiting. It creates a state of intense attention, willingness, and readiness to accept an idea. It is done by a trained specialist.

## Relaxation techniques

Relaxation techniques such as meditation (focusing the mind), breathing exercises, or progressive muscle relaxation (tensing and relaxing the muscles) can help decrease nausea and vomiting.

## Biofeedback

Biofeedback helps people reach a state of relaxation. It uses monitoring devices to help people gain conscious control over physical processes that are usually controlled automatically. Using biofeedback, a person learns to control a certain physical response of the body, such as nausea and vomiting. This is done by tuning in to the moment-to-moment body changes that are linked to the physical response. For example, biofeedback can be used to prevent skin temperature changes, such as those that often happen before nausea and vomiting starts. Biofeedback alone has not been found to work as well as for nausea and vomiting as the combination of biofeedback and progressive muscle relaxation.

## **Guided imagery**

Guided imagery lets people mentally remove themselves from the treatment center and imagine that they are in a place that's relaxing for them. The place can be a vacation spot, a room at home, or some other safe or pleasant place. While trying to imagine what they usually feel, hear, see, and taste in the pleasant place, some people can mentally block the nausea and vomiting.

## **Systematic desensitization**

Systematic desensitization helps people learn how to imagine an anxiety-producing situation (such as nausea and vomiting) and reduce the anxiety related to the situation. In most cases, what a person can imagine without anxiety, he or she can then experience in the real world without anxiety.

## **Acupuncture or acupressure**

Acupuncture is a traditional Chinese technique in which very thin needles are put into the skin. There are a number of different acupuncture techniques, including some that use pressure rather than needles (acupressure). Acupuncture or acupressure can help with nausea.

## **Music therapy**

Specially trained health professionals use music to help promote healing.. Music therapists may use different methods with each person, depending on that person's needs and abilities. There's some evidence that, when used with standard treatment, music therapy can help to reduce nausea and vomiting due to chemo.

## **Managing nausea and vomiting at home**

Frequent vomiting can be dangerous because it can lead to [dehydration](#)<sup>3</sup>. It can also lead to inhaling food or liquids, which can cause choking and other problems.

Be sure to tell your cancer care team if you have nausea or are vomiting because there are medicines that can help. These medicines should be taken on a regular schedule, or as needed, as prescribed by your doctor. And if a certain drug doesn't work, your cancer care team may be able to recommend another one. It may take a few tries to find the medicines that work best for you. Talk with your cancer care team about what's causing your nausea and vomiting and what you can do about it.

## What to look for

- Changes in eating habits
- Foul mouth odor
- Yellow or green foul-smelling fluids on bedclothes
- Feeling queasy or having an upset stomach
- Increased saliva, clamminess, and sweating that may come before vomiting

## What the patient can do

### For nausea

- Eat the foods you like and those that sound good to you. For example, some people develop a dislike for red meat and meat broths during treatment. In that case, try other protein sources, such as fish, chicken, beans, and nuts.
- If the nausea only happens between meals, keep something in your stomach. Eat frequent, small snacks throughout the day. Snack ideas include smoothies, trail mix, and fruit.
- Do not skip meals or snacks. If your stomach is empty, your nausea might be worse.
- On chemotherapy treatment days, eat a small meal or snack before treatment.
- Try to avoid eating your favorite foods when you have nausea. If you eat foods you like when you are nauseated, you could find them unappealing when treatment is over because you associated them with feeling sick.
- Sip liquids slowly throughout the day. You may find it easier to tolerate cold and clear liquids (Clear liquids are those you can see through, such as ginger ale, apple juice, broth, tea, etc.)
- Also try popsicles or gelatin. Suck on hard candy with pleasant smells, such as lemon drops or mints, to help get rid of bad tastes. (Don't eat tart candies if you have mouth sores.)
- Eat bland foods, such as dry toast and crackers.
- Eat food cold or at room temperature to decrease its smell and taste.
- Avoid fatty, fried, spicy, or very sweet foods.
- Try small amounts of foods high in calories that are easy to eat (such as pudding, ice cream, sherbets, yogurt, and milkshakes) several times a day.
- Use butter, oils, syrups, sauces, and milk in foods to raise calories.
- Avoid low-fat foods unless fats upset your stomach or cause other problems.



- Tart or sour foods may be easier to keep down (unless you have mouth sores).
- Try to rest quietly while sitting upright for at least an hour after each meal.
- Distract yourself with soft music, a favorite TV program, or the company of others.
- Tell your cancer team about the nausea, because there are many drugs that can help it.
- Take your anti-nausea medicine at the first signs of nausea to help prevent vomiting.
- While waiting for your nausea medicine to work, relax and take slow, deep breaths.

### What to eat or not eat on days that you have nausea\*

	Eat	Foods that may cause problems
<b>Protein foods</b>	Boiled or baked meat, fish, and poultry; cold meat or fish salad  Well cooked eggs  Cream soups made with low-fat milk  Non-fat yogurt  Juice-type commercial protein supplements (for example, Ensure Clear) blended with ice and eaten with a spoon  Cottage cheese  Cold sandwiches	Fatty and fried meats, like sausage or bacon  Fried eggs  Milk shakes (unless made with low-fat milk and ice cream)
<b>Breads, cereals, rice, and pasta</b>	Saltines, soda crackers, bread, toast, pretzels, cold cereal, English muffins, bagels  Plain noodles, white rice	Doughnuts, pastries, waffles, pancakes, muffins
<b>Fruits and vegetables</b>	Potatoes (baked, boiled, or mashed)  Canned or fresh fruits, vegetables as tolerated (do not eat if appetite is poor or nausea is	Potato chips, fried potatoes such as french fries or hash browns  Breaded, fried, or creamed vegetables;

	severe)	vegetables with strong odor
<b>Drinks, desserts, and other foods</b>	Ginger ale, cold fruit drinks, caffeine-free and noncarbonated soft drinks such as fruit punch and sport drinks, caffeine-free iced tea	Alcohol
	Sherbet, fruit-flavored gelatin	Coffee
	Angel food cake, sponge cake; vanilla wafers	Tea
	Pudding made with low-fat milk	Pie, ice cream, rich cakes
	Popsicles, juice bars, fruit ices	Spicy salad dressings
	Pretzels	Olives
	Salt, cinnamon, spices as tolerated	Cream
		Pepper, chili powder, onion, hot sauce, seasoning mixtures

\*Adapted from The Academy of Nutrition and Dietetics; 2013

### For vomiting

- If you are in bed, lie on your side so that you won't inhale the vomit.
- Ask that medicines be prescribed in the form that would be easiest for you to tolerate, such as dissolving tablets or suppositories, if possible. To prevent vomiting, take the medicine at the first hint of nausea.
- 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.
- Sit upright after vomiting.
- Try liquids in the form of ice chips or frozen juice chips, which can be slowly dissolved in your mouth.

### What caregivers can do

- When the patient feels nauseated, offer to make meals or ask others to make

- meals to reduce bothersome food odors. Use kitchen vent fans to reduce smells.
- Cover or remove foods with strong or unpleasant smells.
  - Use plastic forks and spoons rather than metal ones, which may cause a bitter taste..
  - Ask about medicines to help prevent vomiting.
  - Watch the patient for dizziness, weakness, or [confusion](#)<sup>4</sup>.
  - Try to help the patient avoid [constipation](#)<sup>5</sup> and dehydration by encouraging them to sip on clear liquids slowly throughout the day. Either of these can make nausea worse.

## Call the cancer care team if the patient

- Might have inhaled some of the vomited material
- Is vomiting over a period of days,
- Vomits blood or material that looks like coffee grounds
- Cannot take in more than 4 cups of liquid or ice chips in a day or hasn't eaten for more than 2 days
- Can't take medicines
- Becomes weak, dizzy, or confused
- Loses 2 or more pounds in 1 to 2 days (This means they are losing water quickly and might be getting dehydrated.)
- Has dark yellow urine and doesn't urinate as often or as much

## Hyperlinks

1. [www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active/nutrition.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/staying-active/nutrition.html)
2. [www.cancer.org/treatment/treatments-and-side-effects/complementary-and-alternative-medicine/complementary-and-alternative-methods-and-cancer.html](http://www.cancer.org/treatment/treatments-and-side-effects/complementary-and-alternative-medicine/complementary-and-alternative-methods-and-cancer.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fluids-and-dehydration.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/fluids-and-dehydration.html)
4. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/changes-in-mood-or-thinking/confusion.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/changes-in-mood-or-thinking/confusion.html)
5. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/stool-or-urine-changes/constipation.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects/stool-or-urine-changes/constipation.html)

## References

Blanchard EM, Hesketh PJ. Nausea and vomiting. In DeVita VT, Lawrence TS, Rosenberg SA, eds. *DeVita, Hellman, and Rosenberg's Cancer: Principles and Practice of Oncology*. 11th ed. Philadelphia, PA: Lippincott Williams & Wilkins; 2019:2078-2085.

Brant JM, Stringer LH. Chemotherapy-induced nausea and vomiting. In Brown CG, ed. *At. Guide to Oncology Symptom Management*. 2nd ed. Pittsburgh, PA: Oncology Nursing Society; 2015: 171-196

Figuroa-Moseley C, Jean-Pierre P, Roscoe JA, Ryan JL, Kohli S, Palesh OG, Ryan EP, Carroll J, Morrow GR. Behavioral interventions in treating anticipatory nausea and vomiting. *Journal of the National Comprehensive Cancer Network*. 2007; 5(1): 44-50.

Hainsworth JD. Nausea and vomiting. In Niederhuber JE, Armitage JO, Kastan MB, Doroshow JH, Tepper JE, eds. *Abeloff's Clinical Oncology*. 6th ed. Philadelphia, PA: Elsevier; 2020:599-606.e3.

Hesketh PJ et al. Antiemetics: ASCO guideline update. *Journal of Clinical Oncology*. 2020; 38(24). Accessed at <https://ascopubs.org/doi/10.1200/JCO.20.01296> on September 10, 2020.

Kravitz, KG. Hypnosis for the management of anticipatory nausea and vomiting. *Journal of the Advanced Practitioner in Oncology*. 2015; 6(3):225-229.

National Cancer Institute (NIH). *Treatment-related nausea and vomiting (PDQ®)- Health Professional Version*. 2018. Accessed at <https://www.cancer.gov/about-cancer/treatment/side-effects/nausea/nausea-hp-pdq> on September 6, 2019.

National Cancer Institute (NIH). Nausea and vomiting in people with cancer. 2018. Accessed at <https://www.cancer.gov/about-cancer/treatment/side-effects/nausea> on September 9, 2019.

National Comprehensive Cancer Network (NCCN). Antiemesis. 2019. Version 1.2019. Accessed at [https://www.nccn.org/professionals/physician\\_gls/pdf/antiemesis.pdf](https://www.nccn.org/professionals/physician_gls/pdf/antiemesis.pdf) on September 9, 2019.

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