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Coping With Nausea and Vomiting From Chemotherapy

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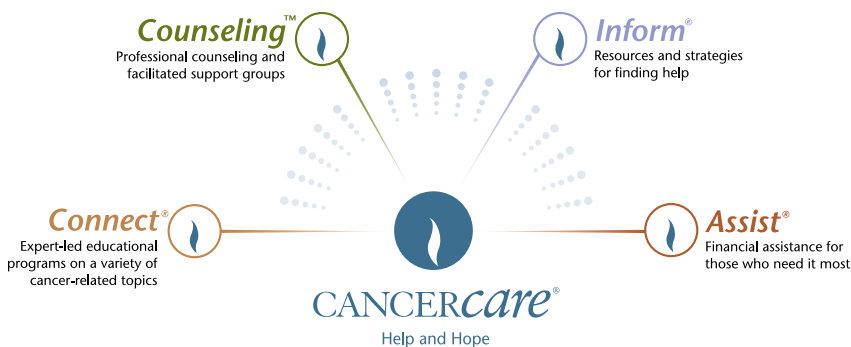
- Types of nausea and vomiting from chemotherapy
- Drug treatment of nausea and vomiting
- Communicating with your doctor
- Your support team



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Doctors now have many ways to prevent and ease nausea and vomiting from chemotherapy.

Many surveys have shown that patients and their loved ones believe nausea and vomiting occur with all types of chemotherapy (anti-cancer drugs). But half of the chemotherapy drugs now in use only became available in the past several years. And the side effects caused by the newer drugs are not necessarily the same as those caused by older



drugs. However, many people receiving chemotherapy may still experience nausea and vomiting. Fortunately, doctors now have many ways to prevent and ease their symptoms.

It's important to work with your health care team to prevent or reduce nausea and vomiting. Don't hesitate to tell your doctor or nurse about your symptoms, even if you think what you're experiencing is just mild queasiness. That feeling in your

stomach can be the first sign of nausea, which medications can prevent or ease if you take them in time. If one type of anti-nausea and vomiting medication doesn't work, your doctor can prescribe something else. So keep him or her posted on how the drugs are working.

Even if you're feeling fine, it's important to adhere to—or stick with—your health care team's instructions as to when you take your medications. **That's especially crucial if you are getting chemotherapy in pill form.** You need to make sure you understand very clearly the order in which you take your medications—the chemotherapy and anti-nausea drugs—and the times at which you take them.

Why is it so important to take nausea and vomiting seriously? These symptoms can:

- **Reduce your quality of life**—your ability to do and enjoy everyday activities
- **Affect your outlook**
- **Make it difficult to work or concentrate**
- **Possibly delay treatment**
- **Harm your health** That's because vomiting can lead to **dehydration**—the loss of fluids and electrolytes, or salts, that the body needs in order to function.

It can be distressing to family members and loved ones who may feel helpless when nausea and vomiting take hold. But your doctors and nurses can help you avoid these symptoms; if you do experience nausea and vomiting, your health care team can keep you **hydrated**, so that you maintain the right balance of fluids and electrolytes.

How Chemotherapy Causes Nausea and Vomiting

When chemotherapy enters the body, sensors in the digestive system and brain detect its presence as a foreign substance. In a complex series of signals among the brain and the mouth, stomach, intestines, and bloodstream, the medication stimulates the “vomiting center” in the brain. Several chemicals, including ones called **serotonin** and **substance P**, are released, triggering the nausea and vomiting reflex.

Avoiding Dehydration

When nausea or vomiting becomes severe, it can cause **dehydration** and imbalances in the body's chemistry. This is a serious condition that should not be neglected. These fluid and chemical imbalances can lead to:

- Dizziness
- Low blood pressure
- Muscle spasms and cramps
- Weight loss
- Mental confusion
- Damage to the heart, lungs, or kidneys

If dehydration becomes severe, an **intravenous** saline (salt) solution may be needed temporarily until your body chemistry returns to normal.

Ask your health care team for its recommendations on some of the things you can do to stay **hydrated**, such as drinking plenty of water, broth, or solutions such as Pedialyte, an over-the-counter product for correcting dehydration. The product is marketed for children, but adults can use it as well.



Because chemotherapy is meant to destroy rapidly dividing and growing cancer cells, sometimes it harms healthy tissues in the body where normal cells also turn over quickly. Those areas include the lining of the mouth, esophagus (food pipe), and stomach. Some anti-cancer drugs can irritate these areas, and that also leads to nausea and vomiting.

Some people experience nausea and vomiting within the first few hours of receiving chemotherapy. Doctors call this reaction **acute nausea and vomiting**. Others don't feel symptoms the day of chemotherapy but then develop nausea and vomiting during the next few days. This condition is called **delayed nausea and vomiting**. Don't assume that nausea and

vomiting that occurs a day or two after treatment isn't related to chemotherapy. It's important to tell your doctor or nurse when you experience these symptoms, no matter when they occur.

Because some people getting chemotherapy expect to feel ill, they start experiencing symptoms even before their treatment begins. This is referred to as **anticipatory nausea and vomiting**. Sometimes the sights, sounds, or smells of the treatment room can trigger anticipatory nausea and vomiting.

Drug Treatments for Nausea and Vomiting

Experts have been developing anti-nausea medications for the past 40 years. Your doctor will decide which drugs to prescribe based on the type of chemotherapy you are getting and how much nausea and vomiting might be expected. If you are in a clinic or hospital, you will usually receive anti-nausea drugs **intravenously** (delivered through a needle into a vein). But some anti-nausea medications are also available in pill or liquid form, as well as a **suppository** (a soft capsule containing medication that dissolves in the rectum).

After chemotherapy, you may also be given anti-nausea medications to take at home. It's important to understand how the drugs should be taken. To prevent nausea and vomiting, some medications are designed to be taken for several days, whether you feel nauseous or not. Others are meant to be taken only when you feel symptoms. If you have questions about when you should take your anti-nausea medication, be sure to call your doctor or nurse.

Generally, anti-nausea drugs fall into the following categories:

CORTICOSTEROIDS

Corticosteroids, which are related to the natural hormone cortisol, are widely used to help prevent nausea and vomiting due to chemotherapy. They have been used successfully for

Talking to Your Doctor About Nausea and Vomiting

Studies have shown that doctors and nurses often underestimate—by as much as half—the number of patients who experience nausea and vomiting after receiving chemotherapy. Many patients feel hesitant to call a health care provider to let him or her know what is going on. Some people may not realize that they don't have to simply accept nausea and vomiting; many medications are available to relieve their symptoms. What's more, miscommunications sometimes occur when people don't have the same understanding of nausea as their doctor or nurse. Some patients may not think "feeling queasy" is the same as feeling nauseous.

If you have any stomach upset in the days following chemotherapy, don't bear it in silence. This symptom could be a sign of nausea, which, even though it occurs after chemotherapy, is directly related to treatment of your cancer. Be sure to let your health care team know about it so they can treat the symptom before it starts again, during or after the next round of chemotherapy. Nausea and vomiting are side effects that can and should be managed effectively.

many years, especially to prevent delayed nausea and vomiting. Corticosteroids such as dexamethasone (Decadron, Hexadrol, and others) may be given in many different forms and are often combined with other anti-nausea drugs for the most benefit.

DOPAMINE ANTAGONISTS

This family of drugs includes prochlorperazine (Compazine and others), a medication that has been used for 40 years. Prochlorperazine relieves nausea and vomiting due to many types of chemotherapy. Another **dopamine antagonist**, called metoclopramide (Reglan and others), also helps relieve

the bloated feeling that sometimes comes with nausea and vomiting. In high doses, metoclopramide can be effective against chemotherapy-induced vomiting. Because dopamine antagonists can cause nervousness and tremors, they have been largely replaced by another family of drugs called serotonin antagonists.

SEROTONIN ANTAGONISTS

Serotonin antagonists are often used to counter nausea and vomiting resulting from powerful chemotherapy drugs, such as cisplatin (Platinol and others) and cyclophosphamide (Cytoxan, Neosar, and others). The anti-nausea drugs stop the natural substance serotonin from sending a signal to the brain that causes vomiting. They are usually administered intravenously before chemotherapy begins.

One of these drugs, palonosetron (Aloxi), continues to work for days after a single injection. It can prevent both acute and delayed nausea and vomiting. Other serotonin antagonists available in the United States include ondansetron (Zofran and others), granisetron (Kytril), and dolasetron (Anzemet), which can all be given as a pill or injection.

Ondansetron and granisetron are both available in liquid form, and ondansetron also comes in a tablet form that dissolves in the mouth. Ask your doctor or nurse about these other forms if you have trouble swallowing pills or keeping them down when you are feeling nauseous.



BENZODIAZEPINES

Benzodiazepines, such as lorazepam (Ativan and others) and diazepam (Valium and others), do not stop nausea and

vomiting, but they help relieve the anxiety that people can feel when they believe they're about to experience these symptoms.

APREPITANT

Aprepitant (Emend) works on the vomiting center of the brain to prevent nausea and vomiting due to chemotherapy. It blocks the action of substance P, which triggers nausea and vomiting reflexes. Because it works differently from corticosteroids and serotonin antagonists, aprepitant is often added to them when people get chemotherapy that is likely to cause acute or delayed nausea and vomiting. Aprepitant, available as a capsule, is taken before a chemotherapy session and for two days afterward. A related drug, fosaprepitant dimeglumine (Emend for Injection), was recently approved by the U.S. Food and Drug Administration and gives patients receiving chemotherapy another option for preventing nausea and vomiting. Delivered intravenously, fosaprepitant is converted to aprepitant in the body.

People who don't experience nausea or vomiting right away may believe that they don't need to take medications such as aprepitant. But if your doctor recommends this or other drugs, it's a good idea to stick with the treatment plan to *prevent* side effects. Sometimes, waiting until after nausea and vomiting start may make it more difficult to get these symptoms under control.

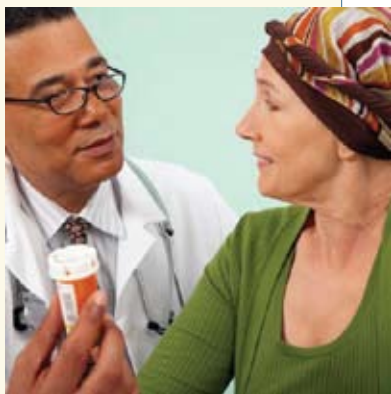
CANNABINOIDS

Cannabinoids contain the active ingredient found in marijuana. For a number of years doctors have prescribed dronabinol (Marinol) as an anti-vomiting medication. In 2006, the U.S. Food and Drug Administration approved nabilone (Cesamet), which can control chemotherapy-related nausea and vomiting in cancer patients who have not been adequately helped by other anti-nausea medications. Like marijuana, dronabinol and nabilone can cause sedation and mood changes.

Coping with Nausea

These tips can help if you are feeling nauseous after receiving chemotherapy:

- Before you leave the clinic, be sure that you fully understand your doctor's and nurse's instructions for taking anti-nausea medicines.
- See that you have a sufficient supply of the correct anti-nausea drugs.
- Be sure that you are drinking enough fluids. Ask your nurse or doctor about proper nutrition and avoiding dehydration while you are receiving chemotherapy.
- Find out from your doctor if any other medicines you may be taking might be contributing to your feeling of queasiness or stomach upset and require special precautions.
- Eat and drink slowly. Try having small meals throughout the day instead of your usual breakfast, lunch, and dinner.
- Avoid sweet, fried, or fatty foods, as well as foods with strong odors. For some people who are undergoing chemotherapy, just the smell of food can trigger nausea. Eating foods cold or at room temperature can help you avoid strong smells.



Your Support Team

When you are diagnosed with cancer, you're faced with a series of choices that will have a major effect on your life, and maybe you're not sure where to turn. It's perfectly normal to feel sad, angry, afraid, or frustrated about the side effects of chemotherapy and other treatments. For example, if your life is disrupted by nausea and vomiting, you may not be able to

do all the things you're used to doing. But help is available. Of course, your most important resources are your health care team, family members, and friends. It's important to develop good communication with them. You can also turn to these resources:

Oncology social workers and nurse practitioners

are specially trained to help you find out more about your treatment options, learn how to navigate the health care system, and get the best care possible. Often, when people are coping with cancer, they need someone to talk with who can help them and their families sort through the complex

emotions and concerns that arise. These health care professionals can provide emotional support, help you cope with treatment and side effects (including nausea and vomiting), and guide you to resources. CancerCare® offers free counseling from professional oncology social workers on staff.

Nausea and vomiting can disrupt familiar social

events with family and friends, which often revolve around food. When you're feeling queasy, it can be difficult to take part in such events. Oncology social workers and nurse practitioners can help you develop practical ways of coping with this challenge.

Registered dietitians can be invaluable resources for people who are coping with nausea and vomiting. A dietitian can help you put together an eating plan that will meet your nutritional needs during this time. They can also help you find ways to maintain proper fluid intake to prevent dehydration.



Support groups can reduce the feeling that you are going through cancer alone. These groups provide reassurance, suggestions, insight—a safe haven where you can share similar concerns with your peers in a supportive environment. At CancerCare, people with cancer and their families can take part in support groups in person, online, or on the telephone.

The Partnership for Prescription Assistance (PPA) helps patients without prescription coverage get the medicines they need through the public or private program that's right for them. For patients

who qualify, many can get their drugs free or at low cost. PPA helps people find the right patient assistance program from among more than 475 such programs, including more than 150 offered by pharmaceutical companies. To reach the



Partnership for Prescription Assistance, go to www.pparx.org or call 1-888-477-2669.

Other financial help is offered by a number of organizations, including CancerCare, to help offset some costs related to cancer, such as transportation to and from treatment, child care, help around the home, and the cost of some pain and nausea medications. CancerCare can also refer you to other resources in your community that can provide assistance.

The CancerCare Connect® booklet *Coping With Cancer: Tools to Help You Live* provides more information on the medical, emotional, and practical concerns faced by people with cancer. You can request a copy of this booklet by calling CancerCare at 1-800-813-HOPE (4673).

Frequently Asked Questions

Q How can I get my insurance to cover certain drugs without first having to try other drugs that I know aren't going to be effective?

A The first place to start is your doctor's office, because insurance coverage differs from one plan to another. If you have multiple insurers, that can add to the confusion. Your doctor's office may be able to help you find out why there is a delay in getting your coverage. Is it your insurance company? Has the drug been approved only for other uses? Is your health plan only covering certain formulations of the drug? For instance, your insurer may not want to pay for an oral form of a drug but may reimburse you if it is given by injection.

In addition, you can contact the Partnership for Prescription Assistance (see page 11) or CancerCare®. CancerCare's financial assistance program can help pay the cost of some anti-nausea medications as well as other treatment-related expenses.

Q Is acupuncture an effective treatment for nausea and vomiting caused by chemotherapy?

A There have been a number of studies on acupuncture used for this purpose, and the results in this area are mixed. Keep in mind that different practitioners apply acupuncture differently. If you decide to try it, be sure to let your doctor know. Consider acupuncture as a complement to, not a replacement for, the medications your doctor has already prescribed.

Q My husband is going through chemotherapy, and he's been so sick with nausea and vomiting that I'm afraid he's becoming malnourished and dehydrated. What can I do to help him?

A You're right to be concerned. The key thing to stress is that your husband needs to talk to his doctor to get the medications that can manage his nausea. This is a symptom that can and should be controlled for his overall health and outlook. The second point to make is that when nausea and vomiting disrupt a person's ability to eat and drink, it can affect his nutritional health and hydration. Most oncology health care teams include registered dietitians—specialists who can help a cancer patient create an eating plan that can be tolerated and will meet his or her nutritional needs. It's especially important that people with cancer who also have other medical problems that seriously affect nutrition, such as diabetes or kidney disease, see a dietitian for help in coping with chemotherapy-related nausea and vomiting.

Q My grandmother always swore by tea made with ginger for calming an upset stomach. Is there any evidence that this would help me with nausea, now that I'm getting chemotherapy?

A Remedies like this, which would be considered alternative or complementary treatments, need to be carefully tested before they can be recommended to patients in general. Currently, two major studies in the United States are looking at whether ginger really can help relieve chemotherapy-induced nausea and vomiting. Having said that, if ginger tea is comforting to you, there's no reason not to drink it. Just view it as something that might help in addition to the medication your doctor prescribes.

Glossary

acute nausea and vomiting Symptoms that may occur within the first 24 hours after chemotherapy.

anticipatory nausea and vomiting A queasy feeling and reaction that may arise *before* a chemotherapy session and is related to a sight, smell, or other event a person has associated with receiving chemotherapy.

dehydration The loss of fluids that the body needs to function.

delayed nausea and vomiting A side effect of chemotherapy that may occur the day after or even several days after treatment. Patients often don't recognize this as a side effect of chemotherapy and therefore may not mention it to their doctor.

dopamine antagonist A drug that blocks the action of dopamine, a natural chemical, from stimulating the nausea and vomiting center in the brain. Because dopamine is found throughout the nervous system, blocking (or antagonizing) its actions can have unwanted effects, such as nervousness or tremors.

hydrated Maintaining the right balance of fluids and electrolytes, or salts.

intravenously Describes medications or fluids delivered through a needle into a vein.

serotonin A natural chemical messenger that has many important functions in the body, including stimulating movement in the intestines. When released by certain chemotherapy drugs, serotonin can send a signal to the brain that is sensed as nausea and may trigger vomiting.

substance P A chemical in the brain that can trigger nausea and vomiting.

suppository A soft capsule containing medication that dissolves in the rectum, releasing the medication into the bloodstream.

Resources

CancerCare

1-800-813-HOPE (4673)

www.cancercares.org

Cancer.Net

(Patient information from the American Society of Clinical Oncology)

www.cancer.net

National Cancer Institute

Cancer Information Service

1-800-422-6237

www.cancer.gov

Pathways to Prevention

(Patient information on preventing nausea and vomiting associated with chemotherapy)

www.pathwaystoprevention.com

The Wellness Community

1-888-793-9355

www.thewellnesscommunity.org



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The information presented in this patient booklet is provided for your general information only. It is not intended as medical advice and should not be relied upon as a substitute for consultations with qualified health professionals who are aware of your specific situation. We encourage you to take information and questions back to your individual health care provider as a way of creating a dialogue and partnership about your cancer and your treatment.

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When one word changes your world,

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makes all the difference



With CancerCare,
the difference comes from:

- Professional oncology social workers
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- Education and practical help
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Our trusted team of professionally trained oncology social workers provides free counseling, education and practical help for you and your loved ones.



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