

COPING WITH

# Nausea and Vomiting From Chemotherapy

**CANCERCARE  
CONNECT®  
BOOKLET SERIES**



**CANCER*care***®

[WWW.CANCERCARE.ORG](http://WWW.CANCERCARE.ORG)



The CancerCare Connect® Booklet Series offers up-to-date, easy-to-read information on the latest treatments, managing side effects and coping with cancer.

Founded in 1944, CancerCare® is the leading national organization providing free, professional support services and information to help people manage the emotional, practical and financial challenges of cancer. Our comprehensive services include counseling and support groups over the phone, online and in person, educational workshops, publications and financial and co-payment assistance. All CancerCare services are provided by oncology social workers and world-leading cancer experts.

CancerCare relies on the generosity of supporters to provide our services completely free of charge to anyone facing a cancer diagnosis. If you have found this resource helpful and wish to donate, please do so online at [www.cancercares.org/donate](http://www.cancercares.org/donate). You may also mail a check, payable to CancerCare, to CancerCare, Attn: Donations, 275 Seventh Avenue, New York, NY 10001.

Thank you.

CancerCare®  
National Office  
275 Seventh Avenue  
New York, NY 10001

Toll-free 800-813-HOPE (4673)  
Fax 212-712-8495  
Email [info@cancercares.org](mailto:info@cancercares.org)  
Web [www.cancercares.org](http://www.cancercares.org)

The content of this booklet is independent, non-promotional and free of commercial influence and bias.

# Coping With Nausea and Vomiting From Chemotherapy

## TABLE OF CONTENTS

- Introduction ..... 4
- Why Chemotherapy Causes Nausea and Vomiting ..... 6
- Drug Treatments for Nausea and Vomiting ..... 8
- Types of Anti-Nausea Drugs ..... 10
- CancerCare’s Free Support Services and Programs ..... 15
- Frequently Asked Questions ..... 16
- Resources ..... 19

## EDITOR

### **Stewart B. Fleishman, MD**

*Founding Director, Cancer Support Services,  
Continuum Cancer Centers of New York, Accreditation Surveyor,  
American College of Surgeons Commission on Cancer*

## *Your oncology care providers now have many ways to prevent and ease nausea and vomiting from chemotherapy.*

Surveys have shown that many patients and their loved ones believe nausea and vomiting occur with all types of chemotherapy (anti-cancer drugs). In reality, half of the chemotherapy drugs now in use became available in the past several years, and their side effects are not necessarily the same as those caused by older drugs. Though many people receiving chemotherapy may still experience nausea and vomiting, your health care team has many ways to both prevent and ease these symptoms.

It's important to tell your doctor or nurse about your symptoms, even if what you're experiencing is just mild queasiness. That feeling in your stomach can be the first sign of nausea, which can be treated with various types of medications. If one type doesn't work, your doctor, advanced practice nurse or physician's assistant can likely prescribe something else, so keep your health care team posted on how the medications are working. Be sure to ask about possible dietary adjustments, as they may also be of help.

Even if you're feeling fine, it's important to follow your health care team's instructions on when to take your medications. That's especially crucial if you are receiving chemotherapy in pill form, as you will need to take the chemotherapy and the anti-nausea drugs in a certain order and at a certain time of day.

## The Importance of Getting Help

**Do not accept nausea and vomiting as “the norm,” as there are many medications available to relieve your symptoms. It's important to seek help from your health care team if you experience symptoms, as nausea and vomiting can:**

- Cause dehydration, which can be harmful to your health (see the Avoiding Dehydration sidebar on page 7)
- Reduce your quality of life and your ability to enjoy everyday activities
- Affect your outlook and mood
- Make it difficult to work or concentrate
- Potentially result in treatment delays

Your health care team wants to help. Contact them as soon as you experience any symptoms, no matter the severity.



# Why Chemotherapy Causes Nausea and Vomiting

When receiving chemotherapy, sensors in the digestive system and brain detect its presence and identify it as a foreign substance. In a complex series of signals from the brain to the mouth, stomach, intestines and bloodstream, the chemotherapy stimulates the “vomiting center” in the brain. Several naturally occurring protein transmitters, including ones called serotonin and substance P, are released, triggering the nausea and vomiting reflex.

Although chemotherapy is meant to destroy rapidly dividing and growing cancer cells, it sometimes affects healthy tissues in the body, including those in the lining of the mouth, esophagus (food pipe) and stomach. Some anti-cancer drugs can irritate these areas, leading to nausea and vomiting.

Some people experience nausea and vomiting within the first few hours of receiving chemotherapy (known as an acute reaction). Others don't feel symptoms the day of chemotherapy but develop nausea and vomiting during the following few days (a delayed reaction). It's important to notify your health care team when you experience these symptoms, no matter when they occur.

Because some people receiving chemotherapy may expect to feel ill, they may experience symptoms even before a treatment session begins. Sometimes the sights, sounds or smells of the treatment room can trigger an anticipatory reaction.

## Avoiding Dehydration

**When nausea or vomiting becomes severe, it can cause dehydration. This is a serious condition that should not be neglected, as it can lead to:**

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

Ask your health care team about things you can do to stay hydrated or correct dehydration, such as drinking plenty of water or other clear liquids and taking a product such as Pedialyte. Available over the counter, Pedialyte contains the medically recommended balance of sugar and sodium (an electrolyte) to promote hydration. It is marketed for children, but adults can use it as well.

If dehydration becomes severe, your doctor may recommend that an intravenous saline solution (a salt solution delivered through a needle into a vein) be administered until your body chemistry returns to normal.

# Drug Treatments for Nausea and Vomiting

There are many anti-nausea medications that have become available in recent decades. Your doctor will decide which (if any) medications to prescribe, based on the type of chemotherapy you are receiving and the anticipated severity of nausea and vomiting side effects. Your age, gender and other health conditions may also be a factor in your doctor's recommendation.

If you are receiving treatment in a clinic or hospital, you will usually receive anti-nausea drugs intravenously (delivered through a needle into a vein). Some anti-nausea medications are also available in pill or liquid form or as a suppository (a soft preparation 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 these drugs should be taken. Some medications are designed to be taken regularly for several days, whether you feel nauseated or not. Other medications are meant to be taken only when you feel symptoms. If you have any questions about when you should take your anti-nausea medication, be sure to contact your health care team.





# Types of Anti-Nausea Drugs

## Anti-anxiety drugs

Medications such as lorazepam (Ativan and others) or diazepam (Valium and others) are used to help block nausea and vomiting. These sedatives can be given intravenously and in pill form. Benzodiazepines such as lorazepam and diazepam do not stop nausea and vomiting directly, but they help other anti-nausea medicines work effectively and relieve the anxiety that people can feel when they believe they're about to experience these symptoms.

To avoid becoming dependent on such medications, a careful schedule should be worked out with your doctor or nurse. They can also effectively relieve the anxiety that people can feel when they believe they're about to experience these symptoms.

## Corticosteroids

Corticosteroids, which are related to the natural hormone cortisol, are widely used to help prevent nausea and vomiting caused by chemotherapy. They have been successfully used for many years, especially to prevent delayed nausea and vomiting. Corticosteroids such as dexamethasone (Decadron, Hexadrol and others) can be given in different forms and are often combined with other anti-nausea drugs for maximum benefit.

## Serotonin antagonists

Serotonin antagonists are often used to counter nausea and vomiting resulting from chemotherapy drugs that can cause stronger nausea or vomiting, such as cisplatin (Platinol and

others) and cyclophosphamide (Cytoxan, Neosar and others). Serotonin antagonists stop serotonin (a substance occurring naturally in the brain) from sending a signal that causes vomiting. These drugs are usually administered intravenously before chemotherapy begins.

One of these drugs, palonosetron (Aloxi), was specifically tested to work for days after a single injection. It can prevent both acute and delayed nausea and vomiting. Other similar serotonin antagonists include ondansetron (Zofran and others), granisetron (Kytril) and dolasetron (Anzemet). Like palonosetron, dolasetron is given as an injection. Ondansetron is given in tablet or liquid form, and granisetron is given either via an injection or in tablet form.



## Aprepitant

Aprepitant (Emend) works in the vomiting center of the brain to prevent nausea and vomiting caused by chemotherapy. It blocks the action of substance P, a peptide that triggers nausea and vomiting reflexes. Aprepitant is sometimes given in combination with corticosteroids and serotonin antagonists. It is available as a capsule and is taken before a chemotherapy session and for two days afterward. A related drug, fosaprepitant dimeglumine (Emend for Injection), gives patients receiving chemotherapy another option for preventing nausea and vomiting. It is delivered intravenously and converted to aprepitant in the body.

## 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. Cannabinoids can be taken in combination with, but not as a replacement for, other types of anti-nausea drugs. These pill forms of cannabinoids are made with the same safety and purity standards for all prescription drugs. They are safer to use than other commercially available forms of marijuana products as they are the specific sub-types of cannabis that most suppress nausea and vomiting. Smoked cannabis is best avoided since the burning process irritates the mouth and throat and can introduce sources of infection at a time when the system is least able to fight it off.

## What You Can Do

### **These tips can help prevent—or help you cope with—feelings of nausea after receiving chemotherapy:**

- Be sure that you fully understand your health care team's instructions for taking your anti-nausea medicines and that you have a sufficient supply at all times.
- Talk to your doctor about any other medications you may be taking (including over-the-counter medicines and supplements), as they might contribute to your feeling of nausea. Your doctor may recommend changes or advise that you take special precautions.
- Ask your health care team about proper nutrition and how to avoid dehydration while you are receiving chemotherapy (see the Avoiding Dehydration sidebar on page 7).
- Eat and drink slowly, and try having four or five small meals throughout the day, rather than three larger meals.
- Avoid cooking or eating food with strong odors, as well as overly sweet, greasy, fried or highly seasoned food. Highly caffeinated drinks should also be avoided.
- Keep a log of what you eat and drink and how you feel afterwards, as this will allow you to easily determine if certain foods and liquids lead to symptoms of nausea and vomiting.

Additionally, a registered dietician can be a valuable resource for people who are coping with nausea and vomiting, as they can help you put together an eating plan that will meet your nutritional and hydration needs.





# CancerCare's Free Support Services and Programs

When you are diagnosed with cancer, you are faced with a series of important choices, and you might not be sure where to turn for answers to your questions.

CancerCare can help. We are the leading national nonprofit organization providing free, professional support services to anyone affected by cancer. Our licensed oncology social workers can provide you with counseling, education, resources, help in navigating the complicated health care system and information on support groups and other resources, including those that may be able to provide financial help.

To learn more about how CancerCare helps, call us at 800-813-HOPE (4673) or visit [www.cancer.org](http://www.cancer.org).

After a cancer diagnosis, you will likely build your own personal support network, comprised of family and friends. In doing so, it's best to take some time to think about the people in your life and how they are best suited to help. Match the task to their strengths—ask a family member who loves to cook to prepare a meal for you; ask a friend who's a good listener to come over for a chat.



# Frequently Asked Questions

## **Q: Are there other types of drugs not related to my chemotherapy treatment that can cause nausea and vomiting?**

A: There are a number of drugs that can cause nausea and vomiting, including bronchial dilators, pain medications and some antibiotics. The cancer itself can also cause these symptoms. It's important for you to keep track of the severity of your symptoms and when they begin and end and to share that information with your health care team, as the pattern will help them determine the best course of action.

## **Q: My insurance company won't cover the anti-nausea drug my doctor prescribed. What can I do?**

A: Insurance coverage can differ significantly depending on the company and the specific plan. It could be that your plan will cover one formulation of the prescribed drug but not another (e.g. will cover an injection but not the oral form of a drug). Talk to a benefits specialist at your insurance company about what your plan does cover and share that information with your health care team so that the best decision about your treatment can be made.

If you need financial help, CancerCare's financial assistance program can help pay the cost of treatment-related expenses. Additionally, 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, drugs can often be obtained free of charge or at low cost. The PPA helps people find the right

patient assistance program from among more than 475 such programs, including more than 150 offered by pharmaceutical companies. Their contact information can be found in the Resources section.

## **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—with mixed results. Talk to your doctor before deciding to try acupuncture to make sure he or she thinks it's a good approach in your specific situation. Consider acupuncture as a complement to, not a replacement for, the medications your doctor has prescribed.

## **Q: I've heard that tea made with ginger can calm an upset stomach. Is there any evidence that this can help me with nausea now that I'm getting chemotherapy?**

A: There is limited data on whether ginger can help prevent nausea in patients receiving chemotherapy. It's likely safe for you to drink ginger tea, but check with your health care team to make sure there's no medical reason why you should avoid ginger. If you get the go-ahead, view ginger tea as a complement to any medication your doctor prescribes, and enjoy!

## **Q: Can meditation or other relaxation methods help control my nausea and vomiting?**

A: Any healthy technique that reduces stress may be helpful and should be considered as a complement to—not a replacement for—medications your doctor may prescribe. Such techniques include meditation, yoga, deep breathing exercises and listening to music.



## Resources

### General Cancer Organizations

#### **CancerCare**

800-813-HOPE (4673)

[www.cancercare.org](http://www.cancercare.org)

#### **American Cancer Society**

800-227-2345

[www.cancer.org](http://www.cancer.org)

#### **Cancer.Net**

**(Patient information from the American Society of Clinical Oncology)**

[www.cancer.net](http://www.cancer.net)

#### **National Cancer Institute**

800-422-6237

[www.cancer.gov](http://www.cancer.gov)

#### **Partnership for Prescription Assistance**

888-477-2669

[www.pparx.org](http://www.pparx.org)

This booklet was made possible by AbbVie.



**CANCER***care*<sup>®</sup>

Help and Hope

---

**WWW.CANCERCARE.ORG**  
**800-813-HOPE (4673)**