

Chemotherapy

What It Is, How It Helps



What's in this guide?

This booklet will explain chemotherapy. Chemotherapy (chemo) is one of the most common treatments for cancer.

Chemo may be used alone or with other treatments. If your treatment plan includes chemotherapy, knowing how it works and what to expect can help you make good decisions as you prepare for treatment.

If you have more questions, ask your cancer care team to help you. It's always best to be open and honest with them. That way, they can help you decide which treatment is best for you.

Questions about chemotherapy

What is chemotherapy?

The word “chemotherapy” is what drugs that treat cancer are often called. But, not all drugs used to treat cancer work the same way. Be sure you know what kind of drugs are in your treatment plan.

If your treatment plan includes traditional or standard chemotherapy, knowing how it works and what to expect can help you make good decisions as you prepare for treatment.

How is chemo used to treat cancer?

Many different kinds of chemo drugs are used to treat cancer – either alone or with other drugs or treatments. The drugs are different in what they are made of, how they are given, how strong they are, and what side effects they have. Your doctor

figures out the best treatment options to offer based on the kind of cancer you have and how much cancer is in your body (this is called the cancer's stage).

Your cancer care team will talk to you about the goals of chemo before you start treatment.

Chemo may be used to:

- Cure cancer
- Control the cancer by keeping it from spreading
- Make the cancer grow slower
- Kill cancer cells that may have spread to other parts of the body (metastasized)
- Make side effects from cancer better

Will chemo be my only cancer treatment?

Sometimes chemo is the only cancer treatment needed. More often, it's part of a treatment plan that can include surgery and radiation therapy.

Here's why:

- Chemo may be used to shrink tumors before surgery or radiation.
- It may be used after surgery or radiation to help kill any cancer cells that are left.
- It may be used with other treatments if the cancer comes back.

How does chemo work?

The body is made up of trillions of cells. Cancer starts when something causes changes in a normal cell. This cancer cell then grows out of control and makes more cancer cells. Cancer cells usually grow fast.

Chemo kills cells that grow fast, like cancer cells. It can affect normal cells that grow fast, too, like the cells that are in your blood and stomach, and cells that make hair. Most normal cells can fix themselves after being damaged by chemo. But when cancer cells get damaged from chemo, they usually can't fix themselves.

You might get more than one chemo drug, or you might get another kind of drug or treatment with your chemo drug. This is called combination therapy. The treatments work together to kill more cancer cells.

How is chemo given?

Most chemo drugs are given in one of these ways:

- Sometimes chemo is a pill or liquid that is given by mouth (called oral chemo). You just swallow it. You must be careful with oral chemo. It's important to follow safety instructions when touching it and throwing away the package. You also need to keep it away from other people and pets in your home. And you must be careful to take it exactly as your doctor tells you to do. If oral chemo is not taken exactly as instructed, it might not work well to treat your cancer.
- Some chemo might be given like a shot in your arm, leg, or belly (called an injection). The shots may be given in your doctor's office, a hospital, a clinic, or at home.

- Most chemo drugs are given through IV (intravenous). IV means they are put into your blood through a tiny plastic tube called a catheter that's put in a vein using a needle.
- Other types of chemo can be given through a catheter, tube, or needle into an area of the body that is near or around a tumor.
- Sometimes chemo can be rubbed on the skin (called topical chemo). You might need to follow safety instructions for these drugs.

How often and for how long is chemo given?

Most people get chemo over a period of a few to several months. Chemo is often given in cycles during the time it lasts. You may get chemo once a day, once a week, or even once a month. It may all be given in 1 day, or you may need to get it for a few days in a row during each cycle. It depends on the type of cancer you have and the drugs you're getting.

Chemo is usually given with breaks between treatment cycles. The breaks give your body time to rebuild healthy new cells and help you get your strength back.

How long you get chemo depends on the type of cancer you have, your treatment goals, and how the cancer and your body work with the drugs.

Does chemo hurt?

There may be a little pain when a needle is used (just like getting your blood taken can sting), but the drugs should cause no pain. If you do feel pain, burning, coolness, or anything new when getting chemo, tell your nurse right away.

Can I take my other medicine while I'm taking chemo?

Be sure to tell your cancer care team about all the medicines you take. This includes prescription drugs and vitamins, herbs, and anything else you take. Make and keep a list of all the drugs you take. Keep this list up to date and share it with all your doctors.

Some other medicines can affect your chemo. Your doctor can tell you whether it's OK to take these drugs while you get chemo. Once chemo starts, be sure to check with your doctor before you start any new medicines, and before you stop the ones you've been taking.

How will I know if my chemo is working?

Your cancer team will tell how your treatment is working by doing physical exams, blood tests, and x-rays. Ask your team to explain any test results to you, and how they show if your treatment is working.

How much does chemo cost?

The cost of chemo depends on a lot of things, such as which drugs are used, how you get them, and how often you get them. If you have health insurance, check to see if it pays for your chemo drugs. You can ask your cancer care team about cost and, if you need it, where to get help paying for chemo.

You may also want to talk to a patient support person (patient navigator) at your treatment center. Drug assistance programs are also offered through many of the companies that make the drugs.

Will I be able to work during treatment?

During chemo, many people can keep doing the things they were doing every day, such as going to work or school. But the side effects of chemo keep some people from being able to do some things they used to do. Mostly this depends on your situation, if you've had surgery or other treatments, and what you need to do at work.

Make sure you tell your cancer care team what you do each day at work and how it makes you feel. Also, be sure to talk to your work supervisor or human resources team. Together, you can make a good decision about if you should work during treatment or not. If you decide to take some time off, check with your insurance company about coverage.

What about chemo side effects?

Chemo drugs can kill cells that are growing fast, even if they're not a cancer cell. So, some normal, healthy cells that grow quickly can be harmed. This can cause side effects.

Ask your cancer care team what side effects you may expect from the chemo you will get. If you have bad side effects, a lower dose of chemo might be needed, or you might need longer breaks between doses.

Many side effects go away over time after treatments end. Some side effects might not go away at all. This is different for every person that gets chemo. Be sure to talk to your cancer care team. They can help you cope with side effects. Remember that not everyone gets the same chemo drugs. Some chemo drugs cause more side effects than others.

Common chemo side effects

Nausea and vomiting

Some chemo drugs can cause nausea (feeling sick to your stomach) and vomiting (throwing up). These might start a few hours after treatment and last a short time. In some cases, they may last for a few days. Be sure to ask your cancer care team if your chemo might cause these symptoms and what can help.

If your doctor gives you a drug to help nausea and vomiting, be sure to take it. Tell your team right away if the drug isn't working or if you can't keep liquids down.

Hair loss

Some chemo can make your hair fall out. If this happens, you may lose the hair on your head, face, arms, armpits, and groin. You may lose hair slowly or almost overnight. Not all chemo drugs have this effect. Some only cause the hair to get thinner. Your cancer care team can tell you what to expect from the chemo drugs you're getting. In most cases, hair grows back after chemo. But it may not be the same color or may be different in other ways.

Ask your team for tips on taking care of your hair and scalp both before and during chemo. Some people choose to wear head covers, such as caps, scarves, turbans, or wigs and hairpieces. Many health plans cover at least part of the cost of a wig or hairpiece. You might also be able to deduct these costs from your income taxes.

Low blood counts

The bone marrow is the liquid inner part of some bones. It's where all your blood cells are made (red blood cells, white blood

cells, and platelets). The number of blood cells you have is called your blood count. Your blood count will be checked if you're getting the type of chemo that can cause your blood cell counts to drop. Sometimes people can get special medicines to prevent blood cell counts from getting too low.

- **Red blood cells** (RBCs) carry oxygen from the lungs to all parts of the body. During chemo, the bone marrow may not be able to make enough red blood cells. Not having enough red blood cells is called anemia. This can make you feel short of breath, weak, and tired. It can also make your skin, mouth, or gums look pale.
- **White blood cells** (WBCs) fight infection. Chemo lowers the number of your white blood cells, which makes you less able to fight infections. This is called neutropenia. Your cancer care team may suggest ways to help prevent infection, such as staying away from people who are sick, staying away from crowds of people, and washing your hands often.
- **Platelets** form blood clots that help stop cuts from bleeding bruises from getting too big. If your bone marrow can't make enough platelets, you may bleed more, even from small cuts. If your platelet count is very low, you will need to be very careful to avoid getting injured.

If your blood counts drop while you're getting chemo, they usually don't stay low for long. Blood tests will be done to be sure your bone marrow is making new blood cells again.

Mouth problems

Some chemo drugs can cause sores in the mouth and throat. It's usually a good idea to see a dentist before starting chemo. Good

mouth care is a key part of treatment. Be sure to take care of your teeth and gums after each meal. Ask your cancer care team about what toothbrush or mouth rinse is best to use.

Skin changes

Some people have skin problems while getting chemo – such as redness, itching, peeling, dryness, and acne. Some need to be treated with medicine, so be sure to ask your cancer care team if you should expect skin problems.

Immune reactions

Some chemo drugs have a risk of causing a reaction while the drug is being given. Sometimes this causes hives (or skin welts), itching, or trouble breathing. Chemo is usually given in the doctor's office or clinic where a nurse can watch for this type of problem. These problems must be treated right away so they don't get worse.

Changes in your sex life

Most patients can have sex during treatment, but some don't feel like it. This does not mean that something is wrong. Sometimes sexual desire is low or even gone for some time. Lots of things can make this happen while you're getting chemo. Sometimes stress, fatigue, pain, and emotions cause sexual problems.

To learn more about the sexual effects of cancer treatments and how to deal with them, talk to your cancer care team. You can also call us at **1-800-227-2345**.

Most chemo can cause birth defects if a woman gets pregnant during treatment. Some chemo can affect a man's sperm, which may cause problems if he gets a woman pregnant while he is in

treatment. Ask your doctor about what kind of birth control you should use and how long you need to use it.

Fertility problems

Some chemo drugs can leave you unable to have children. This effect does not always go away after treatment ends. If you think you may want to have children someday, tell your doctor before you start treatment and ask if there are things that can be done to prevent fertility problems.

Memory changes

Cancer and its treatment can affect your memory and thinking. This may be called “chemo brain” or “chemo fog.” In rare cases, it can last for a long time after treatment.

If you notice this, talk to your cancer care team. There are health care professionals who can help you with thinking exercises and other types of treatment to help these effects.

Emotional changes

Feeling stressed about cancer and getting chemo can affect a patient’s emotions. Chemo changes your normal life and can make it harder to get things done. You may feel sad or scared. There may be some strain on how you get along with others. But there are ways to cope with these things. Talk to your cancer care team about counseling, support groups, and things you can do.

What can I do to take care of myself during chemo?

Your cancer care team will give you tips on how to take extra care of yourself. Here are some basic things you can do:

- **Get plenty of rest.** You may feel more tired than normal. This can last several weeks or months after your treatment ends. Sometimes the fatigue can last longer. Give yourself time for rest breaks when you need them.
- **Eat healthy foods.** It's important for your body to get enough protein and calories. Your cancer care team can work with you to make sure you're eating the right foods to get what your body needs. They may have tips to help with side effects if you are having trouble eating or don't have much of an appetite.
- **Get exercise if your doctor says you can.** Exercise can help reduce stress and tiredness, and can help you feel like eating. Check with your cancer care team about your exercise plan to make sure it's OK.
- **Ask your cancer care team about alcohol.** Alcohol can cause problems with some chemo drugs. Check with your cancer care team if you drink alcohol.
- **Tell your cancer care team about all medicines you are taking.** If you take any medicines, even aspirin, herbs, or vitamins, let your cancer care team know.
- **Tell your cancer care team about any other health problems you have.**

Will chemo affect my family?

People cannot catch your cancer or your chemo side effects. You can be close to family and friends. Your cancer care team will tell you if there are any special safety instructions to follow at home because of the chemo.

Getting support

When someone asks, “How can I help?” have a few ideas ready.

- You may not feel like eating, so ask loved ones to take turns cooking foods that you think you can eat.
- You might need a ride to treatment, an appointment, or the store. You might get tired after each treatment and need extra rest. Ask your friends and neighbors to do little jobs for you until you feel better.

Keep in mind that your family cares about you, and they may feel upset about your cancer and the chemo. Let your family and friends know how much their support means to you. Be honest about how you feel. Get into the habit of talking things over so they can share your ups and downs.

What should I ask my cancer care team?

Before treatment starts, you will meet with them. Work with your cancer care team to decide what’s best for you. Ask the doctor, nurses, and others all the questions you have. They know your situation best and can help you know what to expect.

Be ready. Write down your questions ahead of time. Take them with you. Don’t be afraid to say you are confused or need more information. Here are some you might want to ask:

- What kind of chemo drugs will work best for me?
- What is the goal or purpose of chemo in my case? Is the goal to cure my cancer or to help control the cancer from getting worse?

- How will we know if the chemo is working?
- Are there other ways besides chemo to treat my cancer?
- How will I get chemo, how often, and for how long?
- Where will I get chemo?
- What side effects should I watch for? Should I call you if I have any of these side effects – even at night or on a weekend? At what phone number?
- Do I need to follow a special diet?
- Is there anything I should do to get ready for treatment?
- What’s the chance that the cancer will spread or come back if I get chemo? What’s the chance that the cancer will spread or come back if I don’t get it?
- Will I need other kinds of treatment? If so, what kind and when?
- Does my insurance pay for chemo? If not, how will I pay for it?
- Will I be able to work (or go to school) during treatment?

Follow-up care

What happens after treatment?

When chemo treatments end, you’ll still need to have check-ups. Your family doctor and your cancer care team will work together to be sure you have follow-up care. Sometimes most of your care might be turned over to your family doctor and you might only see your cancer care team once in a while or if you have a problem.

Here are some questions you may want to ask your cancer care team after chemo ends:

- When can I go back to my normal activities?
- How often will I need to see you? What about my family doctor?
- Which tests will be done and why?
- Do I need to be on a special diet?
- What should I watch for?
- What problems should I call you about?

How can I learn more about my cancer and cancer treatment?

If you'd like to learn more about chemo, please call us. You can also visit www.cancer.org to read more online.

For cancer information, day-to-day help, and emotional support, call the American Cancer Society at **1-800-227-2345**. We're here when you need us.





This is a short review of chemotherapy or chemo. It tells you what chemo is, how it's different from other treatments, how chemo works, things you can do to take care of yourself while getting treatment, and common side effects.

It also gives you lists of questions you may want to ask your cancer care team so you can know what to expect.

For the latest cancer information, day-to-day help, and emotional support, call the American Cancer Society at **1-800-227-2345**. We're here for you every step of the way.



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