



Treating Cancer

A diagnosis of cancer can be overwhelming. Learning about the types of treatment you may have can help you feel more in control. It's important that you talk with your doctor to help you understand your options.¹



How Cancer is Treated



Traditionally, how cancer is treated depends on several factors:^{1,2}

- The type of cancer you have, the size of the tumor (stage), and if it has spread to other parts of the body (metastasis)
- Your age and general health

Precision Medicine A newer approach to cancer treatment is called precision or personalized medicine that takes into account the individual differences in your genes, environment, and lifestyle. Researchers are now finding the “molecular fingerprints” of certain cancers and using them to classify cancer into very specific or precise types and subtypes.

Precision medicine in cancer most often means looking at how changes in certain genes or proteins in a person's cancer cells might affect their care, such as their treatment options. They are also learning that cancers that develop in different parts of the body can sometimes, on a molecular level, have a lot in common. Therefore, precision medicine allows your doctor to offer a specific care plan that's right for you based on the precise type of cancer you have.³⁻⁵

In cancer care, doctors may use precision medicine to:⁵

- Identify people who may be at high risk for cancer and then help them lower their risk
- Find certain cancers early
- Diagnose specific cancers correctly
- Choose the best treatment options
- Evaluate how well the cancer treatment is working

Biomarker Testing Biomarker testing is an important part of precision medicine and it can help you and your doctor choose the best treatment(s) for you. It looks for genes, proteins, and other substances (called biomarkers) that provide information about your cancer. Gene or protein changes can affect how a cancer responds to certain treatments.

Some cancer treatments, such as targeted therapy and immunotherapy, may only work for people whose cancer has certain biomarkers. In addition, some people's cancers have gene changes that are different from those in other people, even if they have the same type of cancer. For example, not every melanoma skin cancer has the exact same gene changes, so these cancers don't always respond to a treatment the same way.⁶

What Treatments Are Available for Cancer?



There are many types of treatment available for cancer. Your treatment plan may include one type of treatment or a combination of treatments:^{1,7}

Chemotherapy: “Chemo” is a type of treatment that uses drugs to kill cancer cells.

Hormone therapy: Treatment that slows or stops the growth of cancers that need hormones to grow, such as breast or prostate cancer.

Hyperthermia: A type of treatment that heats up body tissue to help damage and kill cancer cells while not harming normal tissue.

Immunotherapy: A type of treatment that helps your immune system find and attack cancer cells.

Photodynamic therapy: A process that uses a drug that is activated by light to kill cancer and other abnormal cells.

Radiation therapy: Treatment that uses high doses of radiation to shrink tumors and kill cancer cells.

Stem cell transplant: A procedure that restores stem cells that grow into blood cells. This is used in people who have had their blood cells destroyed by chemotherapy or radiation.

Surgery: A procedure in which the cancer is physically removed from your body.

Targeted therapy: Treatment that targets the proteins that control how cancer cells grow, divide, and spread. Targeted therapy is a type of precision medicine. As researchers learn more about cancer cells and how they change, they will be able to develop more targeted drugs.

Ask your oncologist (a doctor who specializes in cancer) what treatments best fit your cancer.

You may also ask your oncologist about biosimilar and generic medicines that may be lower-cost treatment options, or if you are eligible for a clinical trial. Clinical trials are research studies that try to find better ways to treat cancer.^{2,8}

Questions to Ask Your Doctor^{9,10}



- What type of cancer do I have, and what stage is it?
- What treatments are available for my stage and type of cancer?
- What are the risks and benefits of each treatment?
- What treatment(s) do you recommend?
- What are my chances of recovery with each treatment?
- Where will I go to receive treatment and how is it given?



- What are the side effects of treatment?
- Where can I find more information and support?
- Would a clinical trial (research study) be an option for me?
- Will I need a specialist or second expert opinion?

Where Can You Find Support?¹⁰



- Talk to your family and friends about your feelings, concerns, and what help you need
- Connect with a social worker or counselor to find local programs and services for cancer patients
- Connect with other people who have cancer or volunteer to share your experience with others in your situation

Take Care of Yourself



Cancer and its treatment can take a toll on your body and mind and can change how you look and feel. The following actions can help you cope with these changes.¹⁰

Be active. Stay physically active to reduce stress and help keep your energy levels up.

Have a daily routine. As soon as you start to feel better, try to continue your daily routine at home and at work, including spending time with family and friends, taking part in hobbies, and even going on trips.

Eat well. If you have lost your appetite and don't feel like eating, ask for a referral to a dietitian who understands the needs of cancer patients. A dietitian can help you choose foods that are healthy, taste good, and are easy to eat.

Write down your feelings. Try writing in a journal to express your feelings and begin to deal with them. This can be especially useful if talking about a personal matter is hard for you.



Can Cancer Come Back?²



Cancer may come back after your treatment ends—this is called recurrence. A recurrence may appear in a different part of your body and may need to be treated again.

There are many ways to treat recurrent cancer. Treatment will depend on your type of cancer, where it has recurred, whether it has spread, the treatment you had before, and your overall health.

Your health care team can guide you to the best treatment options for recurrent cancer. You may want to get a second opinion or ask about clinical trials for your condition.

With advanced science and cancer treatments, more people are surviving cancer today than ever before. It's important not to lose hope!



References:

1. National Cancer Institute. Types of cancer treatment. Accessed June 22, 2023. <https://www.cancer.gov/about-cancer/treatment/types>
2. National Cancer Institute. Support for people with cancer: when cancer returns. NCI Office of Communications and Publish Liaison. Updated February 2019. Accessed June 22, 2023. <https://www.cancer.gov/publications/patient-education/when-cancer-returns>
3. National Institutes of Health. The promise of precision medicine. Reviewed April 25, 2023. Accessed June 22, 2023. <https://www.nih.gov/about-nih/what-we-do/nih-turning-discovery-into-health/promise-precision-medicine>
4. National Institutes of Health. Precision oncology. Reviewed February 28, 2023. Accessed June 21, 2023. <https://www.nih.gov/about-nih/what-we-do/nih-turning-discovery-into-health/precision-oncology>
5. American Cancer Society. Precision or personalized medicine. Revised June 15, 2023. Accessed June 22, 2023. <https://www.cancer.org/cancer/managing-cancer/treatment-types/precision-medicine.html>
6. National Cancer Institute. Biomarker testing for cancer treatment. Updated December 14, 2021. Accessed June 22, 2023. <https://www.cancer.gov/about-cancer/treatment/types/biomarker-testing-cancer-treatment>
7. American Cancer Society. Targeted therapy. Accessed June 22, 2023. <https://www.cancer.org/content/dam/CRC/PDF/Public/7629.pdf>
8. National Cancer Institute. Biosimilars for cancer emerge as patients on widely used biological drugs expire. Published June 18, 2018. Accessed June 22, 2023. <https://www.cancer.gov/news-events/cancer-currents-blog/2018/biosimilars-cancer-treatment>
9. National Cancer Institute. Questions to ask your doctor about your treatment. Updated February 22, 2023. Accessed June 22, 2023. <https://www.cancer.gov/about-cancer/treatment/questions>
10. National Cancer Institute. Support for people with cancer: taking time. NCI Office of Communications and Publish Liaison. Updated January 2019. Accessed June 22, 2023. <https://www.cancer.gov/publications/patient-education/taking-time>