



What Is Cancer?

Cancer is not just 1 disease. It is a large group of diseases. In all cancers, certain cells in the body divide without stopping. These fast-growing cells can move from where they start growing and attack other tissues.

Too much growth

Your body is made of trillions of cells. As these cells age, break down, and die, new ones are made. Normal cells only get replaced with new ones when they are needed. With cancer cells, too many cells divide and grow too fast. Not enough of them die. All the extra cells build up and grow into lumps called tumors.

All about tumors

Some cancers grow into solid tumors. Others form in the blood. Leukemia is an example of a blood cancer. Not all tumors are cancerous. Some tumors are called *benign*. This is because they are made of cells that do not break off and invade nearby tissues. Benign tumors are not cancer.

Cancerous tumors are *malignant*. This means their cells can break off and invade other cells, tissues, or organs. Malignant tumors can spread from the main site and start new tumors. This process of traveling and growing tumors in new areas is called *metastasis*.

Malignant tumors can grow back if they are removed with surgery. Benign tumors can be very large but they do not grow back if surgically removed. Benign tumors do not spread. Except in rare cases, like in the brain, benign tumors are not dangerous.

Why cancer grows

Cancer can seem complicated. Here are some simple ways to understand how it grows so fast:

- **Staying alive.** When it is time for normal cells to die, death is automatic. The automatic death of cells helps the body keep plenty of healthy cells while getting rid of old or damaged ones. Cancer cells ignore or go around the normal process of cell death. This is 1 reason cancer cells can divide without stopping
- **Getting food.** Cancer cells can also communicate with normal cells. They do this to build up new blood vessels, which nourish the tumor as it grows. Blood brings oxygen to the cancer cells and takes away waste
- **Hiding out.** Another way cancer cells live and grow is by avoiding the immune system. The immune system protects the body. Immune cells attack and kill disease cells. But cancer cells can trick immune cells and hide from them

Changes in the genes

Cancer is called a genetic disease because it starts in the genes. The purpose of genes is to tell our cells how to grow and divide. When changes happen in genes, cancer can arise. Genetic changes can be inherited from our parents or come from environmental factors like tobacco smoke or the sun's UV rays.

In each person with cancer, the genetic changes are unique. These develop as the cancer grows. Different cells within a single tumor can have more than 1 type of genetic change.

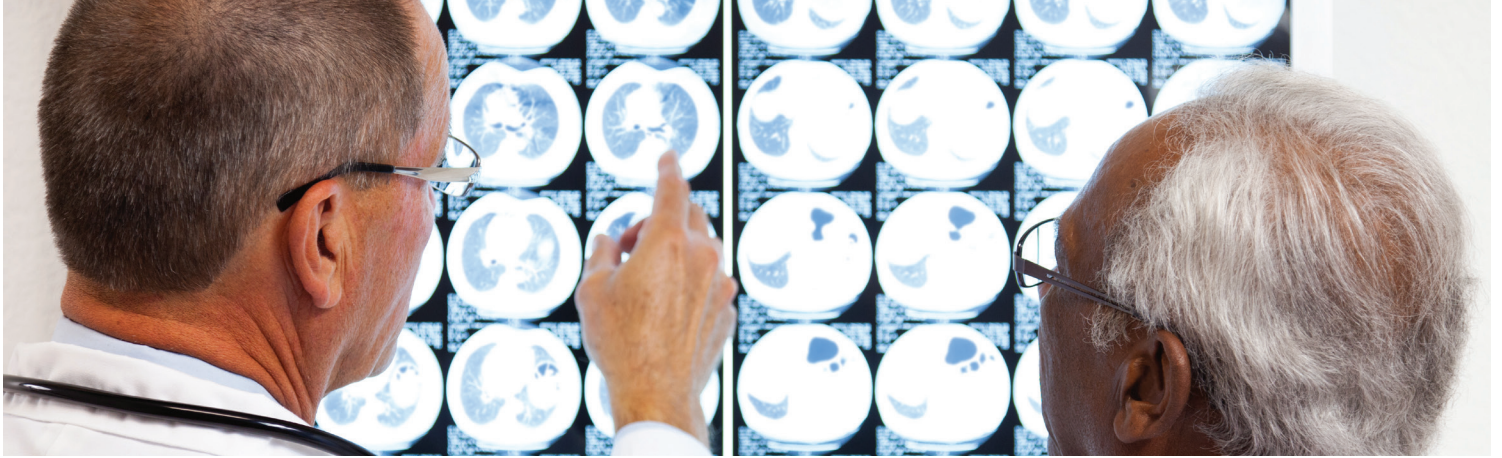
Cell changes to watch

Not all changes in the shape, number, and pattern of cells turn into cancer. Your doctor may keep an eye on any of these 3 cell changes:

- **Hyperplasia.** This is fast cell division and growth. Under the microscope, the cells look normal
- **Dysplasia.** This can be more serious than hyperplasia. It also involves fast buildup of extra cells. In dysplasia, the cells look abnormal under the microscope
- **Carcinoma in situ.** This is even more serious but is not cancer. The reason is that the abnormal cells do not spread or invade other tissues. But sometimes your doctor will treat carcinoma in situ to keep it from becoming cancer

There are more than 100 types of cancer. Some are named for the part of the body where the cancer cells first grow. Others are named for the type of cancer cells.

The word *cancer* can seem scary, but your care team can help you learn more about managing the disease.



Diagnosing Cancer

Screening

Your doctor may run tests even when you do not have symptoms of cancer. These are called *screening* tests. Screening is helpful because it is easier to treat cancer when it is caught early. In some cases, cancer can even be cured if found at an early stage.

Remember to talk with your care team about the risks involved with some screening tests. There is no guarantee that cancer found during screening will be curable.

If you have symptoms, your doctor will run *diagnostic* tests. These tests will tell whether or not you have cancer. They will also tell what kind of cancer you have so you and your care team can start a treatment plan.

The 3 main types of tests that can find cancer:

- *Imaging*. Includes CT scans, nuclear scans, ultrasound, MRI, PET scans, and X-rays. These tests give pictures of your body's tissues and organs. They can help your doctor find and study tumors
- *Biopsies*. A biopsy takes samples of cells, tissues, or organs from the body. It can be done surgically or by needle or endoscope (a tube with a camera)
- *Lab tests*. Doctors use microscopes and other tools in the lab to look at samples from biopsies, blood, or other fluids. Lab tests can give your care team important information to help with treatment

What stage is it?

Cancer is progressive. This means it grows and develops over time. To keep track of cancer's progress, doctors use *staging*. Finding the stage of your cancer is very important because it will help you and your care team plan for treatment.

Test results and cancer stages answer these questions:

- Where is the tumor located?
- What types of cancer cells are in the tumor?
- How large is the tumor?
- Has the cancer spread to nearby lymph nodes?
- How much has the cancer spread to different parts of the body?
- What is the tumor grade? Grading tells how abnormal the cancer cells look and how likely they are to grow and spread

With the answers, your doctor may give your cancer a stage using TNM (tumor, nodes, metastasis) numbers. Ask your care team for more information about TNM staging. Another way to stage cancer goes from 0 to 4:

Stage 0	Stage 1, 2, and 3	Stage 4
• Abnormal cells but no cancer. No spreading to other areas	• Cancer is present • The higher the number, the larger the tumor and the greater spreading to nearby areas	• Metastatic (spread to other parts of body from the original site)



Treating Cancer

The main kinds of cancer treatment are listed here. You may receive some of these in various combinations.

Surgery. This is an operation to take out all or a part of a tumor. It can work well with solid tumors that are in 1 area of the body. Your doctor may take out part of a tumor to reduce the amount of cancer or get ready for another kind of treatment. Surgery may cause pain, infection, bleeding, damage to nearby tissues, and other reactions.

Radiation uses rays of energy—similar to X-rays—to kill cancer cells or reduce the size of tumors. Cancer cells do not die from radiation right away. It can take weeks or months after treatment. Radiation is given externally (outside the body) or internally (inside the body). External radiation focuses beams of radioactive material to specific areas outside the body. Internal radiation is when radioactive material is placed inside the body in the area of the tumor. The radioactive material gets implanted in the body in a kind of container. Implants may be pellets, seeds, ribbons, wires, needles, capsules, balloons, or tubes.

Chemotherapy (or “chemo”) uses drugs to kill cancer cells or slow their growth. It may be given in monthly cycles—every day for 1 week, then 3 weeks off. Your care team may combine chemo with another treatment. It can be given by mouth, by injection or IV drip, or on the skin. Because it also kills healthy cells, chemo can cause side effects. These include mouth sores, vomiting, hair loss, or tiredness.

Immunotherapy helps the body's immune system to fight cancer. The immune system is made up of cells, fluids, and organs that work together to fight disease. Immunotherapy is biological. This means it comes from live organisms. Side effects include needle-area reactions and flu-like symptoms.

Targeted therapy starts with testing your cancer cells to see if they will respond to specific drugs. Targeted drugs work by preventing cancer cells from growing, dividing, or getting what they need to grow. Some targeted therapies combine 2 drugs. One attaches to cancer cells and the other kills them. Over time, cancer cells may build up resistance to targeted therapy. Side effects include diarrhea, rash, and tiredness.

Taking chemo as prescribed

You may be able to take your chemo orally (in a pill or capsule). This can be very convenient. But if you forget to take a pill or change the way you take it, the drugs will not work as well at fighting your cancer. If you think the drugs are working really well, you may be tempted to take more than the prescribed dose. Or if you have side effects, you may want to take less. But it is important to talk to your care team before you make any changes.

If cancer comes back

Sometimes cancer responds really well to treatment. In these cases, you could be cancer-free for 6 months, a year, or longer. Unfortunately, some cancers can recur or come back. When this happens, it can be very upsetting. If you are a cancer survivor, continue talking with your care team. A healthy diet, regular exercise, and routine checkups may help reduce the risk of some cancers from returning. But if recurrence happens, it is not your fault. It is okay to continue asking for help in coping with your feelings.



The 6 Most Common Cancers

These 6 types of cancer are the most common.

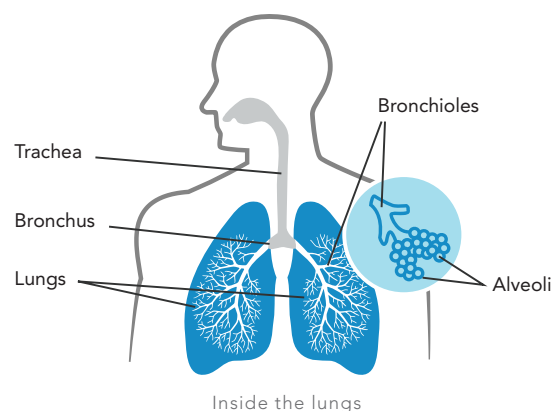
Breast cancer

Breast cancer often starts in the areas of the breast that make and carry milk. Invasive breast cancers spread to other areas. These things may increase the risk of breast cancer:

- Family history or having certain genes
- Too much estrogen
- Benign breast disease
- Alcohol and obesity

Lung cancer

The different kinds of lung cancer are named for the size and look of the cells. A cough that doesn't go away or trouble breathing may be symptoms. Smoking cigarettes or breathing in smoke are the main risk factors. Others include HIV, a family history of lung cancer, radiation, or asbestos.



Prostate cancer

The prostate is a gland just below the bladder in men. It surrounds the tube that carries urine. Early on, prostate cancer does not show symptoms. Later signs are urinating often, burning, or blood in the urine. Back or hip pain, fast heartbeat, weakness, or dizziness may also be signs. Prostate cancer is common in black men and tends to happen after age 65.

Colorectal cancer

Colorectal cancer starts as a growth called a polyp on the inside of the colon or rectum. Symptoms include blood in the stool or changes in bowel habits. Other signs may be frequent gas, pain, or bloating; weight loss for no reason; fatigue; and vomiting. Risk factors include family history, ulcerative colitis, and Crohn's disease.

Bladder cancer

The most common type of bladder cancer happens in the cells inside the bladder. These cells stretch out when the bladder is full. Symptoms include blood in the urine and painful urination. Smoking, certain chemicals, and chronic bladder infections are risk factors.

Melanoma

Melanoma is a kind of skin cancer. It affects the cells that give the skin its color. Two other skin cancers start in basal cells or squamous cells, but these usually don't spread. Melanoma can move into other areas of the body. If you spend lots of time in the sun or at a tanning salon, you are at greater risk. Having moles or fair white skin could also add to your risk.



Living With Cancer

During treatment: food

Cancer treatment can affect how your body gets nutrients from food. Your body needs these nutrients to stay strong as you fight the disease. Here are some goals to aim for as you work with your care team to manage your diet during treatment:

- Make sure you get enough nutrients and calories from food
- Maintain a healthy weight
- Avoid losing muscle mass
- Ask for help coping with these side effects:
 - Decreased appetite
 - Mouth sores
 - Having trouble swallowing

Here are some things to remember:

Food experts

A registered dietitian may join your care team to help you meet these goals. If you are not getting enough nutrients, you may need to eat a high-protein or high-calorie diet. Be sure to discuss any vitamins or minerals you take with your doctor. These can affect your treatment.

Infections

Cancer treatment can make it hard to fight off infections. Wash your hands before touching food. Choose pasteurized honey, milk, and fruit juice instead of raw versions.

During treatment: exercise

Exercise is a safe way to cope with stress and stay strong. Your doctor may keep an eye on your side effects before recommending exercise though. Before you start a new exercise routine, discuss it with your care team.

Most cancer treatments can lead to fatigue or exhaustion. Exercise can help. You can also manage tiredness by:

- Getting fresh air
- Keeping things within easy reach to save your energy
- Eating a balanced diet and drinking water
- Keep an eye on symptoms. Be proactive in finding ways to ease or control symptoms. Ask your care team if you have trouble
- Ask for help when you need it. For example, if you feel exhausted, talk to your care team. Exhaustion can be a sign of low blood cells

After treatment

Even if your treatment works really well and you are cancer-free, you may still have lingering side effects. These can last a long time after you finish treatment. Use the same strategies that helped you manage side effects when you were being treated. Remember to maintain a healthy weight, exercise, and eat healthy, plant-based foods.

If you have advanced cancer

If you are coping with advanced cancer, continue to work closely with your care team. They can help you manage fatigue, bowel changes, decreased appetite, or losing your sense of taste. Exercise may help, but check with your health care providers first.



Dealing With Your Feelings

Cancer and treatment can be hard on your body. It can also affect your thoughts and feelings. Some people with cancer:

- Feel they need to be strong and protect their loved ones
- Get help from friends, family, other cancer patients, or counselors
- Turn to their faith to help them cope

You should decide what is best for you. Try not to compare yourself with others.

Lots of feelings

Here are some feelings you may have:

Feeling overwhelmed. When you have cancer, your routines will change. You may hear medical words you do not understand. It is okay to feel helpless or confused at times.

Denial. This is a feeling of disbelief. It means you have trouble accepting that you have cancer. Denial is not always a negative feeling. It can be a way to give yourself time to adjust. But if denial goes on too long, you might not get the treatment you need.

Anger. Most people with cancer feel angry at times. Asking, “Why me?” is normal. You may get mad at the cancer, at yourself, or at other people. But anger can inspire you to take action. Talking about anger can help you manage it.

Fear and worry. Cancer can be scary. It is normal to worry about:

- Feeling pain from the cancer or from treatment
- Feeling too sick to do the things you like
- Looking different after treatment
- Taking care of your family
- Paying bills or keeping your job
- Dying

Hope. Some people feel hopeful when they accept that they have cancer. There are good reasons to have hope. Millions of people live with cancer. The chances of surviving are better than ever. A hopeful outlook may even help you feel better physically.

Anxiety and stress. Dealing with stress can be difficult. Anxiety can lead to a fast heartbeat, headaches, or an upset stomach. You may get shaky or have trouble sleeping. Paying attention to these feelings can help you cope with them.

Sadness. It is normal to feel sad, even after treatment. If feelings of sadness or tiredness keep getting worse, you may have depression. Talk to your care team if you feel depressed for more than 2 weeks.

Guilt. You may feel like a burden. Or you blame yourself for upsetting your loved ones. This is also normal. Sometimes patients feel guilty for being envious of healthy people. Others might feel like their choices led to the cancer.

Loneliness. What you go through as a cancer survivor can be hard for others to understand. This can make you feel lonely. You may need to stay home instead of meeting friends, family, or coworkers too. Even after treatment, some people miss the support of their care team.

Gratitude. Cancer can feel like a “wake-up call” to be thankful for what you have. You might focus more on the little things. Some people with cancer decide to see new places, finish old projects, or improve relationships.

Ways to deal with feelings

Your care team is a great source of support. Here are some other ways you can cope with feelings:

- **Talk to someone.** Talking about your anger, fear, or sadness can be very helpful. Some patients turn to a friend or family member. It may be easier to talk to another cancer survivor. Or you could talk to a counselor. If you decide not to talk to someone, you can write about your feelings instead.
- **Look for the positive.** Focusing on the good things instead of worrying can help you feel better. This may take some practice, but in time you can train your brain to be more hopeful and positive.
- **Avoid self-blame.** At times, you may think you got cancer because of something you did or failed to do. Remember that cancer can happen to anyone.
- **Be truthful.** You do not need to pretend to be upbeat if you are feeling bad. Give yourself the freedom to have a bad day now and then.
- **Find ways to relax.** Take some time to do the things that help you unwind. You could try meditation or guided imagery to focus the mind on soothing images and sensations. Sometimes with the help of a nurse educator, you might listen to recordings. These can have soft music, nature sounds, and/or the voice of someone who suggests ways for listeners to relax.
- **Stay active.** Going outside and doing something physical can distract you from the stress of cancer. Gentle yoga or stretching can also help.
- **Look for things you enjoy.** Explore a hobby like woodworking or photography. Try watching a new sport. Look into a creative activity like music or drawing.
- **Look at what you can control.** Some fearful thoughts are bound to creep in, but try not to dwell on these. You can control things like being an active partner in your treatment plan and showing up for appointments.

► **Remember that you don't have to go through this alone!**



When Loved Ones Can No Longer Care for Themselves

It can be very difficult watching someone you care about go through cancer treatment, especially if their cancer keeps getting worse. If you are caring for someone with advanced cancer, remember that the main goal is to help ease their suffering. Your role should be to help your loved one get through the rest of their life with dignity, comfort, and ease. You may need to accept that they can no longer do the activities they once did. This may include the simplest of tasks or activities you used to do together.

Helping someone with advanced cancer

Here are some ways you can help a loved one who has an advanced stage of cancer:

- Make decisions together. This will likely bring up many emotions, but try to focus on these areas:
 - Agree on appropriate treatment goals
 - Resolve financial questions. A hospital financial counselor may be helpful
 - Ask family members for emotional support
 - Decide when to consider hospice care
 - See if appropriate clinical trials are available
- Discuss pain management with the care team to make sure your loved one is as comfortable as possible
- Avoid pressuring your loved one to eat. If they are not getting enough nutrients, talk to the care team about feeding options

Be prepared for changes

Your loved one with advanced cancer may undergo changes in their:

- Appearance
- Personality or mood
- Ability to remember
- Sleep patterns
- Appetite or nutrition needs

Understanding these changes before they happen may make them easier to handle.

Other practical concerns

You may have helped your loved one keep track of records such as prescriptions, side effects, and appointments. Continuing to do this can make things more manageable. Here are some other practical things you should consider:

- Ask about accommodating your loved one if they have mobility issues. This may mean installing wheelchair ramps, ordering a hospital bed, or moving a loved one to a downstairs room
- Confirm any advance directives. These are end-of-life plans your loved one has made in advance. They can include a Do Not Resuscitate (DNR), living wills, and durable powers of attorney for health care
- Other legal records that are not part of advance directives (such as a will and a legal power of attorney)
- Plan for palliative care or hospice. Decide when to contact family members and health care providers



Questions to Ask My Doctor About My Cancer

Learning to manage your cancer or take care of someone who has cancer can be a challenge. You might find it hard to remember or understand what the doctor says. Bringing someone with you can help you remember the information correctly; so can this list. It offers questions you may want to ask—and gives you space to write down the answers. It might make it easier for you to manage your disease.

Will I need more tests before treatment begins? Which ones?

Has my cancer spread to other parts of my body?

What are my chances for survival?

What are the benefits and risks of each type of treatment you recommend?

What are the side effects of each treatment?

How will I know if the treatment is working?

How do I find out about clinical trials for my type and stage of cancer?

What long-term health issues can I expect as a result of my cancer and its treatment?

What is the chance that my cancer will return?

How long will it take for me to get better and feel more like myself after treatment?



Patient Support

It is not easy to deal with cancer. Coping with side effects, feelings, and access to prescriptions can be overwhelming. But you don't have to do it alone. Lots of reliable information is available. The following websites have patient support tools and resources for people with cancer:

American Cancer Society

www.cancer.org

American Pain Foundation

www.painfoundation.org

American Society of Clinical Oncology (ASCO)

www.cancer.net

CancerCare

www.cancercare.org

Cancer Support Community

www.cancersupportcommunity.org

Family Caregiver Alliance

www.caregiver.org

LUNgevity

www.lungevity.org

National Cancer Institute

www.cancer.gov

National Coalition for Cancer Survivorship

www.canceradvocacy.org

National Comprehensive Cancer Network

www.nccn.org

National Hospice and Palliative Care Organization

www.nhpco.org

National Institutes of Health (NIH) ClinicalTrials.gov

www.clinicaltrials.gov

Needy Meds

www.needymeds.org

Partnership for Prescription Assistance

www.pparx.org

Patient Access Network (PAN) Foundation

www.panfoundation.org

Other resources

Most major pharmaceutical companies that make cancer treatments have patient assistance programs. These are designed to help with co-pays, free trials, and financial assistance.

The following organizations provide information and resources for patients and care teams dealing with a specific type of cancer:

American Lung Association

www.lung.org

BreastCancer.org

www.breastcancer.org

Breast Cancer Research Foundation

www.bcrfcure.org

Colon Cancer Alliance

www.ccalliance.org

Fight Colorectal Cancer

www.fightcolorectalcancer.org

Melanoma Research Foundation (MRF)

www.melanoma.org

Prostate Cancer Foundation

www.pcf.org

Skin Cancer Foundation

www.skincancer.org

Zero: The End of Prostate Cancer

www.zerocancer.org



Care for the Caregiver

When you take care of a loved one with cancer, it can be easy to forget to take care of yourself. Here are a few reminders of ways you can stay strong and healthy. They should empower you to continue being an effective caretaker for someone else:

- Be sure to get enough sleep. If necessary, use another bedroom to ensure you're not awakened by your loved one's symptoms or side effects
- Be flexible in scheduling your own activities so you are available to help when needed
- Practice stress-management techniques such as:
 - Yoga
 - Meditation
- Make time for yourself
- Keep an eye on physical or emotional stresses that come from caring for your loved one
- Ask for help from others to give yourself a "break" now and then