

# Cancer Care



*A cancer diagnosis is difficult —*  
learning about your disease and treatment should not be.

This guide will help you through your diagnosis, treatment, and recovery. It contains details about treatments, side effects, support programs, and helpful tips. You will find a number of ways to help you learn more about cancer and assist you through the challenges ahead.

You're likely to have questions and concerns along the way. Your Cancer Patient Navigator, doctors, and other healthcare professionals are always willing to answer questions and provide care and support. You may also visit [mountcarmelhealth.com](http://mountcarmelhealth.com) or call 614-546-HOPE (4673).

*For your continued health education, this booklet and others are available on [mountcarmelhealth.com](http://mountcarmelhealth.com).*



*Be faithful in small things because it is  
in them that your strength lies.*

— Mother Teresa

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# Learning about Cancer

The word *cancer* describes many diseases, but all cancers are caused by cells that grow quickly and may spread to other parts of the body. In normal body tissues, cell growth and death are kept in balance. This is the body's natural cycle — to get rid of old cells with new ones. Cancer cells change this cycle.

Cells that grow fast may form lumps or masses of tissue called tumors. Some tumors grow quickly, others slowly. All tumors will increase in size because new cells are being made faster than old cells die.

## Benign Tumors

- Are not cancer
- Are made up of cells that look like healthy tissue cells
- Remain in tight groups
- Do not invade nearby healthy tissues and organs
- Include fatty tumors called lipomas

## Malignant Tumors

- Are made up of cancer cells
- May develop from normal cells, but over time and through many steps become unhealthy cancer cells
- May invade nearby healthy tissues and organs
- May spread to other parts of the body

## Metastasis

- Occurs when cancer cells travel through blood and lymph fluid from the tumor (called the primary site) to another part or parts of the body
- Example — prostate cancer that has metastasized to the bone is not bone cancer, but rather prostate cancer that has spread to the bone

## Common Types of Cancer

### Carcinomas

- Are named for body parts
- Are the most common types of cancers
- Include lung, colon, breast, and ovarian cancers

### Sarcomas

- Develop in cells found in the support tissues of the body
- Include cancer of the bone, cartilage, fat, and muscle

### Lymphomas

- Begin in lymph nodes and tissues of the body's immune system
- Include cancers such as Hodgkin's and non-Hodgkin's lymphomas

### Leukemias

- Begin in immature blood cells that grow in the bone marrow
- Grow quickly and collect in large numbers in the bloodstream



## When Cancer Is Diagnosed

When a cancer is found, the doctor will determine what type it is and how fast it is growing. The doctor will also check to see if the cancer has spread to healthy tissue close by or to other parts of the body. Tests such as scans, X-rays, and blood tests may be needed.

There are many types of cancer treatments. The doctor will work with you to decide the treatments that are best for you. The doctor will look at:

- The type of cancer
- How fast the cancer is growing
- If the cancer has spread to other parts of the body
- Your overall health

The most common cancer treatments are surgery, radiation, chemotherapy, and immunotherapy. You may have one, two, or all of these treatments.

## Your Treatment Is Just for You

Remember that your treatment team will look at your cancer to plan a treatment that is best for you. Not every patient with the same type of cancer as you will have the same treatment plan.

# Understanding Treatments

## Surgery

There are many ways that surgery is used in the diagnosis and treatment of cancer. It is helpful to understand the types of surgeries.

### Surgery to Diagnose Cancer

A surgical biopsy is a way of taking tissue. This allows the pathologist to make an accurate diagnosis. There are several types of biopsies that a surgeon or interventional radiologist may do.

- Fine-needle or core biopsies can be done by inserting needles through the skin to biopsy tumors. This is often used for breast tumors.
- Endoscopic biopsies are done with lighted, flexible scopes that allow access to organs such as the esophagus, stomach, colon, lungs, and bladder.
- Laparoscopy is a surgical procedure in which a scope is inserted through a small incision. This allows the surgeon to see and biopsy organs.
- Surgical incisions may be used to remove the whole tumor. This is called an excisional biopsy. When a part of the tumor is removed, it is an incisional biopsy.

### Surgery to Cure Cancer

In certain cancers, surgery is the best treatment option for a cure. *Curative* surgery involves removing the entire tumor and sometimes all or part of the organ in which the tumor is found. Often, some nearby tissues, including lymph nodes, are removed at the same time. A pathologist then examines all of these tissues to determine if the tumor has been completely removed.

### Surgery to Determine the Extent of the Tumor

*Staging* surgery provides useful information about the extent of the tumor's spread. Surgeries that remove lymph nodes, including those for lymphoma, breast cancer, and ovarian cancer, are done mainly for staging purposes. Accurate staging of a tumor allows doctors to design the best treatment plan after surgery. This surgery may not remove the entire tumor.

### Surgery to Reduce the Size of Tumors

When a tumor cannot be completely removed, *de-bulking* surgery may be done to remove as much of the tumor as possible. This is done with plans for further treatment with chemotherapy or radiation.

### Surgery to Relieve Cancer Symptoms

The main goal of *palliative* surgery is to relieve symptoms. In certain cases, curing the cancer may not be possible, but symptoms can be relieved.

## Surgery to Restore Appearance or Function

Sometimes, *reconstructive* or *restorative* surgery is needed to improve appearance or restore organ function after other surgery is done to remove the tumor. Breast reconstruction after a mastectomy is a common type of reconstructive surgery. Restorative surgery may be needed to restore the function to the intestine or bladder in these types of cancer.

## Surgery to Prevent Cancer

*Prophylactic* surgery may be done to prevent cancer from developing. This type of surgery may be suggested when:

- Biopsies show precancerous tissue
- You have a medical condition that may increase your risk for cancer
- You carry a gene known to increase your risk of cancer



## Radiation Therapy

Radiation therapy is sometimes called radiotherapy, X-ray therapy, or irradiation.

It treats cancer by using beams of high-energy waves or streams of particles called radiation. The equipment aims a specific amount of radiation at tumors or areas of the body where there is cancer.

## Types of Radiation

There are two types of radiation therapy:

### External Radiation

External radiation is most often used for cancer treatment. A machine directs high-energy X-rays at the cancer site. The treatments are painless and you are not radioactive.

CyberKnife® is a type of stereotactic radiosurgery. It is a form of radiation therapy — not surgery — and involves no cutting.

### Internal Radiation

Internal radiation is also called implant therapy or brachytherapy. The radioactive source can be a temporary or permanent implant inside the body at the site of the cancer. An HDR (high-dose-rate) radiation implant is a type of internal radiation that is an option for some cancer patients. The radiation is delivered inside the body close to the cancer. This limits the amount of healthy tissue exposed to radiation. If you are having internal radiation, your doctor and healthcare providers will explain how it will be done and any special precautions that must be taken.



## How Radiation Therapy Works

Radiation in high doses destroys cells or keeps cells from growing and multiplying.

Cancer cells grow and multiply faster than healthy cells. The goal of radiation therapy is to destroy cancer cells with the least amount of damage to normal cells. Normal cells may be affected by the radiation, but most of these cells recover.

Radiation can be used in several ways during cancer treatment:

- Alone
- Before surgery to shrink a tumor
- After surgery to destroy cancer cells that may remain
- With chemotherapy and/or immunotherapy

Side effects from radiation therapy affect only the part of the body being treated. The type and amount of side effects vary depending on the part of the body being treated and the treatment dose. Your doctor and team members will talk with you about what to expect and how to deal with any side effects. Rest, a well-balanced diet, and light exercise are very helpful during the course of your radiation therapy.

## The Radiation Therapy Team

The radiation therapy team is made up of many healthcare members. These include:

### Radiation Oncologist

A radiation oncologist is a doctor who specializes in using radiation to treat cancer. The radiation oncologist prescribes the type and amount of treatment that is right for you.

### Medical Physicist

The medical physicist calibrates the equipment to ensure that the correct amount of radiation is given. The physicist is also involved in treatment planning.

### Medical Dosimetrist

The medical dosimetrist works with your doctor to calculate the amount of radiation that is right for you.

### Radiation Therapist

The radiation therapist positions you for your treatment and runs the equipment that delivers the radiation.

### Radiation Nurse

The radiation nurse coordinates your care and teaches you about your treatment and how to manage your side effects. The nurse also assists the doctor during exams and draws blood or does dressing changes as needed.

### Dietitian

The dietitian helps with any dietary concerns and helps to manage side effects that affect eating and nutrition.

### Social Worker

The social worker helps to arrange for any needed community or home care services. Help with financial concerns can also be addressed.

# Chemotherapy

Chemotherapy is the use of medications (drugs) to treat cancer. It is used also to treat some diseases that are not cancer. Depending on the type and stage of the cancer, chemotherapy can be used to:

- Cure the cancer
- Stop the spread of it
- Slow the growth of it
- Relieve symptoms

## Types of Chemotherapy

- **Combination therapy:** the use of two or more anticancer drugs
- **Neoadjuvant therapy:** the use of chemotherapy before surgery and/or radiation to shrink a tumor
- **Adjuvant therapy:** the use of chemotherapy after surgery and/or radiation

## How Chemotherapy Works

Chemotherapy drugs can slow the growth of and kill cancer cells. They work best on cells that grow fast and divide fast. This is what cancer cells do, but there are some normal cells that grow this way too. Chemotherapy cannot tell normal cells from bad cells. Cells that normally grow fast and divide fast are:

- Hair cells
- Cells in your mouth, gums, stomach, and bowels
- Cells in your bone marrow, which is the spongy part on the inside of bones

## Side Effects

All drugs have side effects, and most of these effects are known. Your doctor may order other drugs to help with side effects. Most of the side effects are related to the fast-growing normal cells. These include:

- Hair loss
- Mouth sores
- Feeling sick to your stomach (nausea and/or vomiting)
- Loose bowels (diarrhea)
- Infections
- Feeling more tired more often (fatigue)
- Bleeding

You will be watched closely by your doctors and nurses. We will check your blood, do exams, and may order some other tests as needed. Please tell us how you are feeling.

## How Chemotherapy Is Given

Chemotherapy treatments may be given in the hospital, the doctor's office, the outpatient infusion center, or at home.

Chemotherapy is most often given through an IV (intravenously) into a vein. It may also be given by pills, shots (injections), a needle or catheter directly into the site of the cancer, or skin lotions or creams.

Chemotherapy is given in cycles. This lets the body rest and repair between treatments. The doctor will talk with you about the type and cycle of your chemotherapy treatments, and how often you will be having them. It is best to follow the treatment plan and keep all appointments. This will allow the chemotherapy to be most effective. An example of a cycle is Taxol® and carboplatin given once every 21 days for 6 times (cycles).

## IV Devices

The most common way to give chemotherapy medication for cancer treatment is by the IV (intravenous) method. The medication is given directly into the bloodstream and then sent throughout the body through a vein. Your doctor will discuss options for IV access and develop a plan based on your treatment schedule.

The most common types of IV access devices for chemotherapy medication are the IV catheter, the PICC, and the implanted port. Medication can be harsh on veins, which may require an IV device that stays in a large vein for a long time.

Your nurse will watch your IV chemotherapy closely. The nurse will check your catheter for a blood return to make certain it is in a vein. It should not burn or hurt during your treatment. Tell your nurse if you have pain or burning while you are getting treatments.

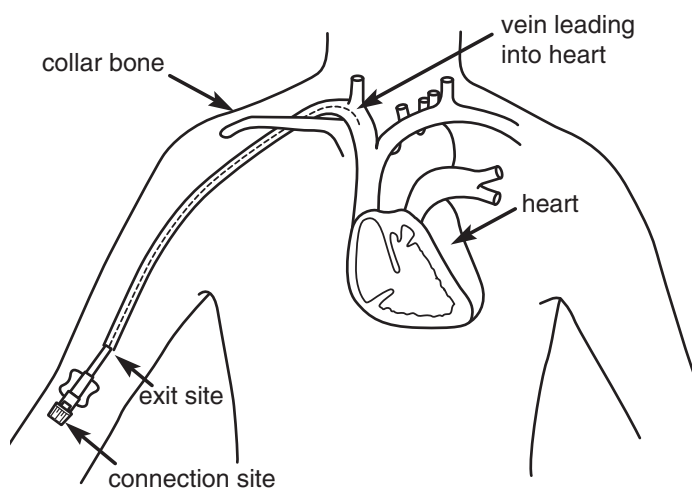
## IV Catheter

An IV catheter is a small, hollow, flexible plastic tube that is put into the hand or forearm. A hollow metal needle with plastic wings called a “butterfly” may be used for drawing blood samples and, in a few cases, giving chemotherapy.

- An IV catheter is usually placed by a nurse on the day of treatment and removed right after chemotherapy is finished.
- It is meant to be a short-term IV device, so it can stay in place for no more than 4 days.

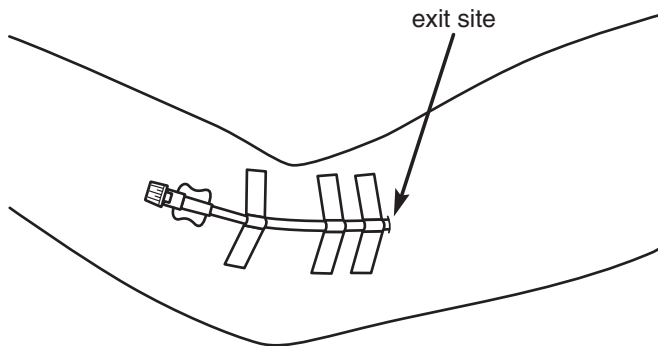
## PICC – Peripherally Inserted Central Catheter

A PICC is a long, thin, hollow, flexible tube. It is inserted by a specially trained nurse or doctor into a vein above the bend of the arm. An X-ray is taken to make sure the PICC is in the correct place. The end of the catheter rests in a large vein above the heart. The other end of the PICC exits the arm. This is where medication is given and blood samples are drawn.



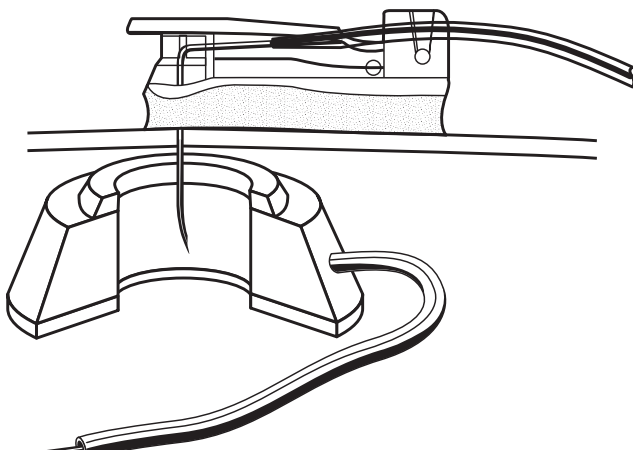
- A PICC can stay in place for months.
- The PICC can be used to give chemotherapy and, in some cases, to collect blood samples.
- People with PICCs may perform normal, daily activities but should avoid activities with a lot of arm movement, such as swimming, golfing, or digging in a garden.

- A transparent dressing covers the catheter exit site. The dressing is changed weekly or as needed, and should be kept clean and dry.
- The dressing cannot be submerged in water or allowed to get soaked. It needs to be wrapped securely before you take a shower.



## Implanted Port

An implanted port is an IV device with a thin, flexible tube or catheter attached to a small plastic device called a port. The port is surgically placed under the skin. The catheter portion is then threaded into the large vein located directly above the heart.



- You will be able to feel the port under the skin and see a bump on your chest where it is placed.
- A special access needle (non-coring needle) goes through the skin and into the port, giving medication through the catheter into the bloodstream. The needle stick to access the port feels like a blood sampling stick.
- Blood samples may be drawn from the port.
- A dressing is placed over the access needle while medication is given, but it is not needed over the area once the needle is removed.
- You may bathe, shower, swim, and perform other daily activities with an implanted port.
- Implanted ports can stay in place for months or years, depending on the type of treatment to be given.
- It is important that you know the type of port you have. Keep the card given to you by your nurse.



# Immunotherapy

Immunotherapy is treatment that uses your own immune system to fight cancer. Your immune system helps to fight infections and other diseases. Although immunotherapy is not as widely used as other therapies, it is approved to treat several types of cancer. Immunotherapy can work to:

- Boost the immune system in general
- Train the immune system to attack cancer cells

## Types of Immunotherapy

- **Monoclonal antibodies:** These are man-made immune system proteins that are designed to attack a specific part of a cancer cell.
- **Immune checkpoint inhibitors:** Drugs that recognize and attack cancer cells.
- **Cancer vaccines:** Substance that is put into the body to make the immune system fight against certain diseases. May be used to treat or prevent cancer depending on the need.
- **Non-specific immunotherapies:** Used to boost the immune system to attack cancer cells.

## Side Effects

Side effects can affect people in different ways. Some side effects require specific treatment. Contact your doctor if you experience:

- Skin rashes
- Swelling from retaining fluid
- Sinus congestion

- Flu-like symptoms such as fever, chills, joint and muscle aches, weakness, dizziness, nausea, and feeling very tired
- Heart palpitations
- Diarrhea

You may also be told that you are at increased risk for infection and instructed on measures to take to protect you.

## How Immunotherapy Is Given

There are different ways to give immunotherapy depending on what type of cancer and treatment your doctor prescribes for you.

- **Intravenous:** Medication is given directly in your vein.
- **Oral:** Medication that is in pill or capsule form that you will swallow.
- **Topical:** This type of medication is usually a cream that you apply to your skin. It is most often used for very early skin cancer.
- **Bladder:** Medication that is given for bladder cancer through a catheter directly into the bladder.

## Where Immunotherapy Treatments Are Given

- Infusion centers at the hospitals
- Doctor's office
- At home

# Clinical Trials

A clinical trial is a research study conducted with patients to evaluate a new treatment or a change in a treatment that is already in use. The goal of this research is to find new and better ways to treat cancer and to help cancer patients. Before a new treatment is offered, it is carefully studied in the laboratory and needs to show promise of good results. Clinical trials help researchers find out if new or changed treatments are safe and effective for patients.

Being part of a clinical trial is voluntary. You may want to or be asked to enter a clinical trial. Learn as much as you can about the trial before you decide to be a part of it.

Patients take part in clinical trials for many reasons. One reason may be a hope of feeling better or of living longer. Patients often want to take part in a research effort that may help others in the future.

Every clinical trial has an action plan, called a protocol, which explains how the study will work. This is reviewed by an independent group to ensure that the research will not expose patients to extreme or unethical risks. Each study's protocol describes what is required for patients to take part in the study.

It is important that you know your rights and protections with clinical trials:

- Taking part in a clinical trial (study) is up to you.
- You will receive the same quality of care whether or not you take part in a study.
- If you do enter a study, doctors and nurses will carefully follow your response to treatment throughout the research.
- If your doctor suspects that a treatment may be harming you, you will be taken out of the study right away. You may then receive other standard treatment.
- You have the right to leave a study at any time.

Before deciding to take part in a clinical trial, you must give informed consent. This means that you must be given all the facts about the study. These include details about the treatments and tests you may receive and about possible risks and benefits. You must sign an informed consent form before you can enter a study. Ask your doctor and the staff any questions you may have before signing the consent form. If you would like more information about clinical trials, go to [clinicaltrials.gov](http://clinicaltrials.gov).



# Dealing with Treatment Side Effects

You may be feeling concerned about side effects that could occur with your cancer treatment. Treatments such as radiation and chemotherapy are used to destroy unhealthy cancer cells in the body. Because they target the fast-growing cancer cells, they also can affect other fast-growing cells in the body such as:

- Blood cells forming in the bone marrow, such as white blood cells, red blood cells, and platelets
- Cells lining the mouth, esophagus, stomach, and intestines
- Hair follicles, the points on the scalp where new hair begins to grow

Common side effects may include:

- Hair loss
- Pain
- Peripheral neuropathy
- Fatigue
- Constipation
- Diarrhea
- Nausea
- Mouth sores

Side effects vary depending on the type of treatment and how your body reacts to the treatment. Your healthcare team will take measures to prevent side effects as much as possible and give you ways to deal with any side effects that you may have.

## Hair Loss

Hair loss (alopecia) is a temporary or permanent loss of hair that occurs as a side effect of chemotherapy or radiation treatments. Chemotherapy may cause a short-term hair loss that varies from thinning to complete baldness. Chemotherapy medications cause damage to hair cells, which makes them weak and brittle. Hair breaks and falls out easily.

- The type of medication and the length of time it is given will determine how long hair loss will last.
- Hair loss may begin 2 weeks after chemotherapy treatment has begun.

## With Radiation

Hair loss from radiation treatments may be permanent depending on the dose you are given. The loss of hair occurs only where the radiation was directed, not all over the body. You will need to talk to your radiation doctor about this in more detail.

## With Chemotherapy

Hair loss is an individual response. One person who receives a chemotherapy medication may experience total hair loss, while another will not. For most patients, hair will grow back once chemotherapy is complete. This may take 3 to 5 months after chemotherapy is finished.

Ask your doctor or nurse if or when you should expect hair loss. Remember that with chemotherapy you may lose hair from other areas of the body such as the eyebrows, eyelashes, and pubic region. Because hair grows slowly in these areas, you can expect less hair loss than on the scalp.

## Coping

Coping with hair loss can be hard. It may be the first sign to the outside world that you are having cancer treatment. It is okay to feel sad or upset about losing your hair. Talk about your feelings with people you trust and with whom you are comfortable.

## Hair Care Tips

Proper care of your hair may decrease loss and thinning. It will also protect new growth, which should appear shortly after your treatments are completed.

Try these tips:

- Shampoo less often, about every 3 to 5 days.
- Use protein-based shampoos
- Use a conditioner.
- Gently towel dry hair.
- Allow hair to air dry or use the hair dryer on cool or the lowest setting.

- Avoid using hair spray or use in small amounts.
- Purchase a satin pillowcase for sleeping to reduce hair matting and tangling at night.

Also avoid:

- Perms and coloring
- Frequent or hard brushing and combing
- Electric curlers and curling irons
- Hair clips, barrettes, and ponytails with elastic bands
- Hair dyes that weaken the hair

## Scarves, Hats, and Wigs

You may want to choose scarves, hats, and a wig designed for you before you have hair loss. Your natural hair color and style can be matched to the wig. You can take your time and try out styles of hats and scarves.

Ask your nurse about the Look Good, Feel Better program in your area. Trained cosmetologists will help you with your changing hair needs and offer you expert makeup tips.

Your nurse can also tell you about other resources. There are many trained and caring professionals available to help you deal with hair loss.



# Pain

Pain is the body's way of sending the message that something needs help. Cancer-related pain can be acute (sudden and sharp) or chronic (steady and lasts for a long period of time). Cancer pain may occur for several reasons:

- A tumor pressing against a nerve or bone
- A tumor pressing against organs
- Nerve and tissue damage because of surgery, radiation, or chemotherapy

All cancer pain is treatable. The first step toward relief is talking with your doctor.

When pain is managed, you will feel better and have more energy for your treatments and your daily work and pleasures.

The goal of pain treatment is to help you have little or no pain throughout your treatment.

Many medications are used to treat cancer-related pain. The medication the doctor prescribes is based on your type of pain. You may be given:

- Anti-inflammatory medications such as ibuprofen to help with swelling and soreness
- Narcotic medications such as morphine-based pills or liquids

- Pain patches, which are placed on the skin like Band-Aids® and release medication at a controlled rate
- Bedside or portable pumps, which release pain medications into the bloodstream or fatty tissue at a controlled rate

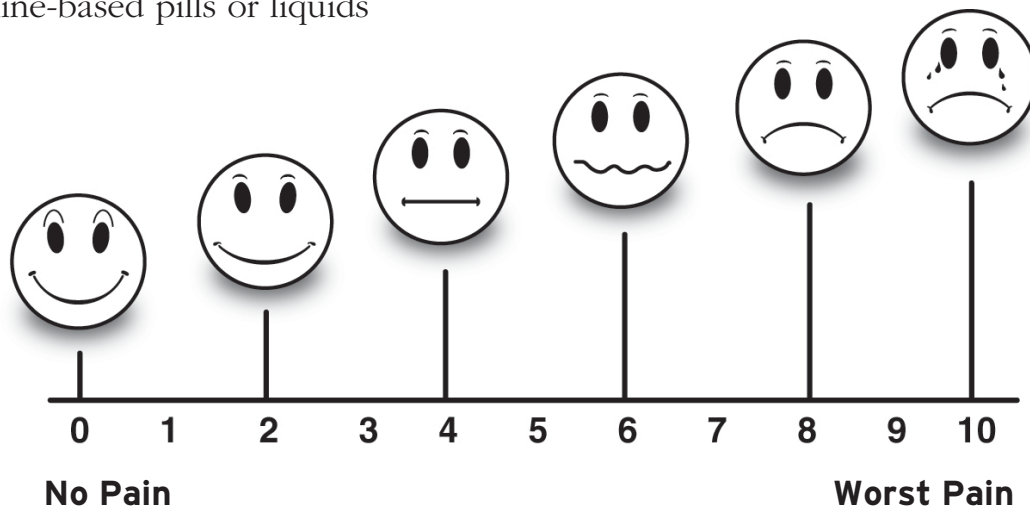
Your nurse or doctor will ask you questions about your pain to help make sure the medications are working. You will be asked to rate the pain on a scale of zero (0) to ten (10). Zero means you have no pain, ten means you have the worst possible pain. The nurse will also ask you what level of pain is okay for you to still feel comfortable.

## Pain Scale

### What to Say about Your Pain

When asked about your pain, it is helpful to include:

- Your rating between 0 and 10
- Where the pain is
- How it feels — sharp, burning, aching, throbbing, tingling, or stabbing
- What seems to make the pain better and what seems to make it worse
- Whether the pain goes to other parts of your body



## Important Guidelines

- Taking pain medication by mouth is the easiest method. It is generally as helpful as injections.
- If your pain is constant, pain medication should be taken on a regular schedule. This maintains a steady level of the medication in your bloodstream.
- Keep a record of your pain rating and what medication helped at the time.
- Narcotics may cause severe constipation. Ask your doctor for treatment options.

## To Help with Comfort

- Take slow, deep breaths to help you relax.
- Support your back and the bony areas of your body by changing position every couple of hours.
- Try light touch and scented lotions. Ask your doctor before you have any deep massage. It may not be okay for some cancers.
- Adjust the temperature and lighting in your room to make it calmer and more soothing.
- Use the power of your mind and think about being in a peaceful, relaxing place.
- Listen to music, watch TV, read, or visit with family and friends to help take your mind off the pain.

Remember that the goal of pain management is to help you be comfortable throughout your treatments and in your daily life. You may need to try several pain medications before finding the one that works best.

## Tell your doctor or nurse if you have:

- Pain in a new area
- Numbness, tingling, or a “pins and needles” feeling
- Increased pain while taking the same amount of medication
- A change in the type of pain, such as dull pain becoming sharp
- Problems dealing with any side effects of pain medicines, such as constipation or sleepiness

## Peripheral Neuropathy

Peripheral neuropathy involves damage to the peripheral nerves that are throughout the body and carry messages to and from the brain and spinal cord.

There are many things that can cause damage to these nerves. Diabetes is the most common cause. Other causes include vitamin deficiencies, alcoholism, and other diseases. Tell your doctor if you already are experiencing peripheral neuropathy.

Some chemotherapy drugs also can cause peripheral neuropathy. Tell your doctor or nurse right away if you notice any of these signs:

- Numbness, tingling, or weakness in your hands or feet
- Pain that can be burning, sharp, or jabbing
- Sensitivity to touch
- Stumbling while walking
- Problems picking up small objects or using buttons or zippers

While there is no cure for peripheral neuropathy, signs may improve or go away once you have completed your chemotherapy course. It is important that you tell your healthcare team how you are feeling so they can make decisions about your treatment. Your doctor may decide to change your medication dose or offer other measures to improve or deal with your numbness or pain.

Safety is an issue when you have numbness in your hands or feet. You are at a higher risk for tripping or falling and you may not notice a foot injury right away.

## To Prevent Falls

- Remove clutter and throw rugs from your home.
- Put up rails as needed and use slip-proof mats in your bath.
- Wear sturdy, well-fitting shoes.
- Take extra care when walking outside of your home. You may want to use a cane if you find your balance is affected.

## To Avoid Burns

- Use hot pads in the kitchen to protect your hands from burns.
- Have someone check your bath or shower water or use a thermometer to make certain the water is not too hot.

## To Protect Your Hands and Feet

- Wear gloves when you are working outside or in the kitchen.
- Wear shoes indoors and outdoors.
- Check your feet for cuts each day. Use a small mirror or ask someone to check for you.
- Report any problems to your doctor or nurse.

## Fatigue

Fatigue is a feeling of being tired. You may:

- Experience lack of energy for doing daily activities
- Have trouble thinking clearly or paying attention
- Not want to do activities that you normally enjoy
- Feel washed out or weighted down
- Have legs that feel rubbery or like jelly

Cancer-related fatigue may be caused by:

- Low blood count such as anemia, a decrease in the number of red blood cells that carry oxygen to tissues
- Nausea, vomiting, and diarrhea
- Trouble sleeping
- Stress, anxiety, and distress
- Problems with nutrition
- Cancer treatments such as surgery, chemotherapy, or radiation
- Cancer

Fatigue can last as long as the cause exists. Talk to your doctor about cancer-related fatigue. Knowing why you are tired can ease your concerns. Your doctor may be able to prescribe treatment that will help manage your fatigue.

You can do some things to deal with the fatigue. You may not feel like doing these at first, but they will help you to feel better over time.

- Get enough rest and sleep. Take a short nap in the morning or afternoon if you feel tired, but don't spend most of the day in bed.
- If you are having trouble sleeping at night, talk to your doctor or nurse. Go to bed the same time each night. Have a nighttime routine such as a warm bath.
- Stay active. Light, regular exercise such as walking can help your energy level. Plan to get some form of light exercise each day.
- Eat a healthful and varied diet of nutritious foods. Drink plenty of water or other fluids each day, unless you have been told by your doctor to limit fluids.
- Eat smaller meals throughout the day to give you more energy. Your body uses less energy to digest small meals. Eating one or two large meals a day can drain your energy.
- Allow time to do the activities that you enjoy. Take up a new hobby or project that you can work on for short amounts of time. Try listening to music, visiting with friends and family, or looking through photos.

- Talk about your feelings with friends and family members with whom you feel comfortable. You may want to talk to a counselor or clergy person. It is common to feel fearful or sad.

Talk to your doctor or nurse if you have questions or concerns, feel that your fatigue is getting worse, or are too tired to get out of bed all day.

## Nausea

Nausea may be a side effect of cancer treatment. The most common causes are chemotherapy and radiation therapy directed at the gastrointestinal tract, liver, or brain.

Nausea is an unpleasant wavelike feeling in the back of the throat or stomach. It is controlled by a part of the central nervous system that controls involuntary body functions. Nausea may or may not result in vomiting — the forceful emptying of the stomach, which is controlled by a “vomiting center” in the brain.

Preventing nausea and vomiting will be part of your treatment with chemotherapy. You may receive medications in your IV line at the time of your treatment. You may also be prescribed pills to take to prevent nausea. Be certain to take these as directed — even on days you are feeling well.

Talk with your nurse about the days you get your treatments. Learn more about ways to relax and the best time for you to eat and drink. Some people feel better when they eat a small amount of food before treatments. Others find that waiting to eat until after treatment works better. Other things you can do to help manage nausea include:

- Avoid any foods that are likely to make you sick to your stomach. This often includes greasy, fried, spicy, and very salty or sweet foods.
- If the smell of food bothers you, ask others to cook for you. Avoid food with strong odors. Let the food cool down before you eat it.
- Make sure you are getting enough to eat and drink. Sip water throughout the day if you find it hard to drink whole glasses.
- Eat smaller meals and snacks instead of three big meals. Do not skip meals or snacks. Having an empty stomach may make nausea worse.

You may find these foods and drinks are easy on your stomach:

- Clear broth such as chicken, beef, and vegetable
- Clear soda such as ginger ale
- Tea, ginger tea, or ginger candies
- Water, cranberry or grape juice
- Electrolyte drinks such as Gatorade® or Powerade®
- Cream of Wheat®, Cream of Rice®, or oatmeal
- Crackers or pretzels
- White toast
- Bananas, canned fruit such as applesauce, peaches, and pears
- Jell-O®

- Popsicles and sherbet
- Yogurt — plain or vanilla
- Pasta or noodles, white rice, and potatoes — boiled without the skin
- Chicken — broiled or baked without the skin

Talk with your doctor or nurse if you have questions or concerns about nausea. There are many options for preventing and treating it.

## Constipation

Constipation can be a side effect of cancer treatment. Constipation is the passage of small amounts of dry, hard stool, usually fewer than three times a week. People who are constipated may find it difficult and painful to have a bowel movement. Other symptoms of constipation include feeling bloated, uncomfortable, and sluggish. Many things can cause constipation during cancer treatments. A few are:

- Chemotherapy
- Pain medication
- A low-fiber diet
- Decreased fluid intake
- Too little exercise

Many pain medications will cause constipation. Talk to your doctor about taking a stool softener or laxative if you are taking medicine for pain.

## To Help Prevent Constipation

- Drink at least 8 to 10 cups of fluid each day. Try water, prune juice, warm juices, and hot tea. Your body needs the fluids to keep your stools soft.
- Eat high-fiber foods. Bran cereal, whole grain breads, and raw vegetables such as celery, beans, peas, and broccoli are good sources of fiber. Fresh or dried fruits also can give you more fiber. Nuts and popcorn are other good sources of fiber.
- Eat at regular times each day to help form good bowel habits.
- Do light exercise, such as short walks, which can help your bowels move more easily.

Always check with your doctor before taking any over-the-counter laxatives or enemas.

### Tell your doctor or nurse if you:

- Have severe pain in your stomach or abdomen
- Are sick to your stomach
- See blood in your stool
- Are unable to pass gas
- Haven't had a bowel movement in 3 days
- Have a change in color or consistency of stools

Be sure to talk with your doctor, nurse, or dietitian if you have other questions.

## Diarrhea

Diarrhea is the frequent passing of loose, watery stools. Diarrhea can occur as a side effect of surgery, radiation, or chemotherapy. Other things that can cause diarrhea include:

- Anxiety
- Stress
- Some medications
- Protein drinks such as Ensure® or Boost®
- Sensitivity to certain foods, such as milk products
- Infections

## To Help Prevent and Manage Diarrhea

- Eat small, frequent meals and snacks throughout the day.
- Eat low-fiber foods such as white bread, plain bagels, crackers, white rice, cooked vegetables, Cream of Wheat, applesauce, canned fruit, or low-fat cottage cheese.
- Avoid gas-producing foods such as broccoli, cauliflower, beans, and cabbage.
- Avoid spicy, fatty, fried, or very sweet foods.
- Limit alcohol and caffeine products such as coffee, tea, or chocolate, which can irritate your bowels and worsen diarrhea.
- Drink plenty of clear liquids such as water, broth, sports drinks, tea that has no caffeine, or carbonated drinks served flat (leave open for at least 10 minutes before drinking). Liquids at room temperature may be better than cold or hot drinks.

- Limit milk and milk products to no more than 2 cups per day or use lactose-free milk and milk products.
- Eat foods high in salt (sodium) such as broths, soups, sports drinks, crackers, and pretzels (unless your doctor has told you to limit your salt intake).
- Also eat high-potassium foods such as fruit juices, potatoes without the skin, bananas, and canned apricots (unless your doctor has told you to avoid these foods).

If you continue to have problems, talk to your doctor about medications to help control diarrhea. Take only the anti-diarrhea medicine that your doctor has approved or prescribed for you.

## Protect Your Skin

Protect the skin around the rectum by washing with a soft cloth, warm water, and mild soap after each stool. Pat the area dry to avoid irritation. Ask your doctor or nurse to suggest a protective ointment or gel to keep your skin from getting sore. A warm soak in the tub or a sitz bath are good ways to ease soreness from diarrhea. Remember to wash your hands well. This will help you to avoid infection.

### Call your doctor or nurse right away if you have:

- Chills
- Vomiting
- Fainting
- Very strong thirst
- Fever of 100.5°F (38.1°C ) or greater
- Pain in your stomach that is not eased by passing of stool or gas

- Bloody stools
- Weakness or fatigue

If you have other questions about diarrhea or how to control it, talk to your doctor, nurse, or dietitian.

## Mouth Sores

Mouth sores are red or white painful patches that may appear in the mouth and the throat as a result of some chemotherapy or radiation therapy to the head and neck or esophagus region. They can appear about 1 to 2 weeks after getting certain types of chemotherapy. Other causes may be poor mouth care, oxygen therapy, alcohol or tobacco, and not enough vitamins or a lack of protein in the diet.

Sores in the mouth may start by looking red, shiny, and painful and progress to small white ulcers. These can be on the gums or on or under the tongue. You may notice a white or yellow film on the tongue and increased mucus in the mouth. Mouth sores can take up to 2 to 4 weeks to heal, so it is very important that you report these to your doctor or nurse as soon as they are found. They can be very painful and lead to problems with eating and drinking, dehydration, and weight loss.

### What You Can Do

- Check your mouth for sores twice daily when doing routine mouth care.
- If you wear dentures, rinse them after each meal.
- Brush your teeth with a soft nylon-bristle toothbrush and use nonabrasive toothpaste.

- If using a toothbrush hurts, use a Popsicle® stick with gauze wrapped around it or a cotton swab instead.
- Avoid mouthwashes with alcohol.
- Keep your lips moist with lip balm.
- Drink plenty of fluids to thin the mucus.
- Gently rinse your mouth before and after meals and at bedtime with:
  - 1 teaspoon baking soda in 2 cups of water OR
  - 1 teaspoon salt, 1 teaspoon baking soda, and 1 quart water

## Low Blood Counts

You will be having blood tests to check how your body is responding to your treatments. Your blood has three main types of cells that are measured:

- Red blood cells or erythrocytes
- White blood cells, also called leukocytes
- Platelets or thrombocytes

The blood cells are made in the bone marrow in the center of your breastbone, hipbones, shinbones, backbones, and other bones. Chemotherapy, radiation therapy, and immunotherapy may affect your blood counts, and your values may be lower than normal. Your doctor or nurse will explain what an acceptable value is for you during your treatment and tell you what measures to take.

## Neutropenia

White cells protect your body from infections. The white cells engulf the site of infection and digest the germs. There are five types of white cells, and each has a job to do:

- **Neutrophils** — these make up more than half of the white cells and act as the first line of defense against infection.
- **Eosinophils** — these respond to allergic reactions.
- **Basophils** — these work in allergic responses and carry histamine.
- **Monocytes** — the second line of defense in infections, these eat up the germs to get rid of them.
- **Lymphocytes** — these cells are part of your body's immune system and attack and destroy invading germs.

Neutropenia, a low white blood cell count, puts you at risk for infection. If your doctor or nurse tells you that your white blood cell count is low, you will need to be more aware of both your health and the things around you.

If you are receiving chemotherapy, you can expect your white blood cell count to be lowest 7 to 10 days after your treatment. Take extra care with precautions during this time. There are many things you can do to help prevent infections.



## Avoid:

- People with cold sores, fever blisters, shingles, chicken pox, measles, mumps, cold, or flu.
- People who have had vaccinations for polio, rubella, mumps, measles, yellow fever, or smallpox in the past few weeks.
- Cleaning bird cages, fish tanks, or cat litter boxes. These carry germs that may make you sick.
- Stagnant water, such as flower vases, denture cups, or drinks that have been sitting out for a long time.

## Keeping Clean

- If you have a long-term catheter, change the dressing as directed. Check the site for signs of infection, which include redness, drainage, swelling, or tenderness.
- Wash your hands with warm water and antibacterial soap before eating, preparing food, and after using the toilet. Have anyone caring for you do the same. It can also be helpful to place several bottles of alcohol-based waterless hand cleansers throughout your home for others to use often.
- Keep fingernails and toenails clean and short. Cut toenails straight across to prevent them from becoming ingrown.
- Use an electric razor to shave.
- Keep skin cracks and small cuts clean and covered. Watch for signs of infection.
- Do not use enemas, rectal thermometers, or suppositories.

- Use a stool softener and increase your fluid intake as needed to prevent constipation. Stop taking the stool softener if you develop diarrhea.
- Brush your teeth often with a soft-bristle toothbrush. Replace your toothbrush at least once a month. If are not able to replace your toothbrush monthly, you can run your current toothbrush through the dishwasher to thoroughly clean it.
- If you have dentures, clean them at least twice a day.

## Food Safety

- Scrub all fruits and vegetables before you eat them. Scrub melons before you cut them. Avoid foods that cannot be washed such as bean sprouts and raspberries.
- Keep raw, cooked, and ready-to-eat foods separated when shopping for, preparing, or storing foods. Place raw meat in plastic bags.
- Refrigerate perishable food promptly and thaw food in the refrigerator — not on the counter.
- Check expiration dates of foods and discard if past date.
- Clean your hands, utensils, dishes, and food contact surfaces.
- Avoid eating raw or undercooked meat and fish. Cook foods to a safe temperature in order to kill germs.
- Make sure eggs are well cooked before eating. Do not eat raw eggs.
- Use only pasteurized milk and milk products. Avoid soft cheeses that are not pasteurized, such as feta, brie, Camembert, and blue cheese.

- Do not eat foods from buffets, salad bars, or bulk food bins.
- Eat a well-balanced diet, and drink plenty of fluids. Do not drink well water.

There is no single food or drink that will increase your white blood cell count.

Call your doctor's office if you have any of these symptoms:

- A temperature by mouth of 100.5°F (38.1°C).
  - Take your temperature twice a day while your white blood cell count is low and if you are feeling poorly.
  - Do not take any over-the-counter medication that may lower your temperature unless directed to do so by your doctor. This includes aspirin, Tylenol®, Advil®, Nuprin®, Motrin®, and many cold and flu preparations.
- Any signs of infection: redness, heat, swelling, pus, or pain
- Chills or shaking
- Sore throat or mouth, with or without white patches
- Cough, with or without mucus
- Pain or burning when passing urine
- Cloudy or bloody urine, with or without a foul odor

If you have any questions or concerns, ask your nurse or call your doctor's office.

## Thrombocytopenia

Platelets are blood cells that allow your blood to clot. Your doctor may tell you that you have a low platelet count. This is also called thrombocytopenia and puts you at an increased risk of bleeding. You will need to take measures to prevent bleeding. Your nurse may call these "bleeding precautions."

### Hygiene

- Use only a soft toothbrush. If you have gum bleeding, use mouth swabs instead of a toothbrush.
- Use an electric razor instead of a razor blade if possible, especially if your platelet count is less than 20,000.
- Wear shoes at all times.
- Blow your nose gently.
- Avoid using enemas, rectal thermometers, and suppositories. Women should not use tampons, vaginal suppositories, or douches.

### Activity

- Avoid tight-fitting clothing such as skirts or slacks with tight waistbands.
- Don't use sharp knives or work with sharp blades.
- Use gloves when gardening.
- Avoid contact sports such as football or hockey.
- Change positions slowly. Sit on the edge of your bed 1 or 2 minutes before you stand. If you are unsteady on your feet, ask for help each time you want to stand or walk.
- Although sexual intercourse is not restricted, use a water-based lubricant such as K-Y® Jelly if needed.

## To Prevent Problems

- Do not take aspirin or aspirin-containing medicines unless ordered by your doctor. Many prescription and nonprescription products, especially arthritis, cold, and sinus medications, contain aspirin (acetylsalicylic acid). Check the active ingredient label carefully for this information. Ask your pharmacist if you need help choosing a product that does not contain aspirin.
- There are many analgesics and anti-inflammatory medicines, both prescription and nonprescription, that contain salicylates (similar to aspirin) or nonsteroidal anti-inflammatory medicines (such as Motrin<sup>®</sup> or Aleve<sup>®</sup>). These should also be avoided or taken only with the doctor's permission. Check with your doctor, nurse, or pharmacist before taking any over-the-counter medication.
- Take stool softeners as needed to prevent straining. Increase the fiber in your diet and drink more fluids. Ask your nurse or dietitian for diet tips.
- Apply firm pressure right away to any site of bleeding for 5 minutes or until bleeding stops. If bleeding does not stop, call your doctor or go to the emergency room.

### Call your doctor or nurse right away if you:

- Have a nosebleed, bleeding gums, bleeding from an incision site, or blood in your urine or stool.
- Notice new reddened pinpoint areas (petechiae) or bruises.
- Have headaches, extreme drowsiness, confusion, or falls.

## Anemia

Red blood cells cause the red color in your blood. The red blood cells carry oxygen from your lungs to your organs and tissues. Hemoglobin is a part of the red blood cells that helps carry the oxygen to all areas of your body.

If your red blood cell count is too low, you have anemia. This means that your blood cannot carry enough oxygen to your tissues. Symptoms of anemia often happen slowly, so you may not even notice them at first. Some of the signs of anemia are:

- Feeling tired
- Pale skin color
- Weakness
- Shortness of breath
- Pounding heart
- Dizziness
- Chest pain

There are many different causes of anemia in people with cancer. Some may have nothing to do with your cancer. Some of the more common causes in people with cancer include:

- Cancer itself
- Blood loss
- Poor nutrition or missing vitamins in the diet
- Organ problems such as heart disease or kidney failure
- Chemotherapy
- Radiation treatment
- Certain tumors such as lung or ovarian tumors

Your doctor will try to find out what is causing your anemia by checking your complete blood count (CBC) several times during your therapy. You may also have other tests such as a colonoscopy, EGD, or CT scans.

# Caring for Yourself

## Nutrition Tips

Surgery, radiation, chemotherapy, and hormone therapy may affect your digestive system. These treatments target fast-growing cells found in the lining of the mouth and the digestive system. Damage to these healthy, fast-growing cells causes the side effects that may result in eating problems.

Tell your doctor or nurse if you are taking vitamins, herbs, or dietary supplements or are on a special diet. This is important because vitamins, herbs, supplements, and certain diets can affect how your body responds to your cancer treatments.

Your doctor may prescribe a special diet for you. There are many things you can try if you have any of the following side effects.

## Loss of Appetite

Loss of appetite is one of the most common problems that occur with cancer and cancer treatment. Here are some ways to deal with this:

- Eat small, frequent meals throughout the day. You may be able to eat more without getting too full.
- Try liquid or powdered protein drinks such as Boost or Ensure when it is hard to eat solid food.
- Keep snacks close by and eat whenever you feel like it. Take a snack with you when you go out.
- Drink juice, soup, or milkshakes throughout the day if you do not feel like eating solid foods.
- Eat snacks before bedtime.

- Drink your liquids between meals so you are not too full to eat.
- Make your mealtimes relaxing and pleasant.

## Weight Loss

Some people lose weight during cancer treatment. This may be due to the effects of cancer on your body or because you are eating less. To slow weight loss, you need to increase calories and protein in your diet.

### Try these ways to control weight loss:

- Pick food that is high in calories.
- Eat favorite foods any time of the day.
- Eat your largest meal when you are most hungry during the day.
- Add butter or margarine to soup, gravy, or sauces on meat, rice, or potatoes.
- Use whole milk or cream on cereal, pureed vegetables, soup, or sauces.
- Add cheese to casseroles, potatoes, vegetables, eggs, or sandwiches.
- Use cream cheese or sour cream as dips, spreads, or toppings.

If you feel too full too fast:

- Eat small meals often — if needed, 6 to 8 times a day with healthful snacks in between, such as cheese and crackers, peanut butter and crackers, cottage cheese and fruit, milkshakes, or ice cream.

- Drink liquids such as milk, Ensure, Boost Plus<sup>®</sup>, or Carnation Breakfast Essentials<sup>®</sup> a half hour before and after meals.
- Try to add extra protein and calories without increasing the amount of food by adding cheese or eggs to many of your food dishes.
- Avoid greasy foods and rich sauces. Fats take a longer time to be digested.
- Take breaks during meals.
- Chew foods well.
- Avoid gas-forming foods such as cabbage, onions, nuts, legumes, beer, and carbonated drinks.

## Weight Gain

Sometimes weight gain occurs during cancer treatment. This may be the result of certain medications, hormone therapy, chemotherapy, or a change in eating or exercise habits.

You may also retain water due to certain medications. This is called edema, and it is more common in ovarian, breast, and prostate cancers.

If you notice weight gain, do not go on a diet right away. Instead, talk to your doctor or dietitian first. He or she will help advise you on what healthy steps you can take.

### To help manage weight gain:

- Choose lean cuts of meat such as chicken, turkey, fish, and lean beef.
- Choose low-fat dairy products such as 1% milk, low-fat cottage cheese, or low-fat yogurt.
- Eat more fruits and vegetables.

Choose a colorful variety.

- Avoid high-fat, high-calorie snacks such as chips, cookies, candy, and ice cream. Instead, snack on fruits, vegetables, or fat-free popcorn.
- Reduce added fats in your diet such as salad dressing, margarine, butter, mayonnaise, and gravy, or try using low-fat varieties.
- Prepare your food with low-fat cooking techniques, such as broiling, baking, and steaming. Use nonstick pans while sautéing so no added fat is needed.
- Reduce the amount you eat of calorie-dense baked goods, such as muffins, cookies, cakes, and quick breads.
- Regular exercise can help burn off the extra calories that lead to weight gain.

## Sore Mouth or Throat

Some cancer treatments can lead to mouth sores, tender gums, or a sore throat. Your doctor can give you medication that will help ease your mouth and throat pain. Certain foods can irritate an already tender mouth and make chewing and swallowing difficult. To make eating less painful, carefully choose what food you eat and take good care of your mouth, teeth, and gums.

### Try soft foods:

- Milkshakes
- Bananas, applesauce, or other soft fruit
- Cottage cheese or yogurt
- Mashed potatoes or noodles
- Macaroni and cheese

- Custards, pudding, or gelatin
- Scrambled eggs
- Oatmeal or cooked cereal
- Pureed or mashed vegetables
- Soups

**Avoid these foods and liquids, which can be irritating:**

- Oranges, grapefruits, lemons, other citrus fruits, and juices
- Tomato sauce or juice
- Spicy foods such as salsa, horseradish, chili powder, cloves, and nutmeg
- Raw vegetables, granola, toast, crackers, or other tough, coarse foods
- Hot food or liquid
- Alcoholic drinks
- Mouthwashes containing alcohol

**Other hints for a sore mouth or throat:**

- Cook food until it is soft and tender.
- Cut food into small pieces.
- Use a straw to drink liquids.
- Use a small spoon.
- Eat food that is cold or at room temperature.
- Drink warm bouillon or salty broth for a sore throat.
- Rinse your mouth often with water to remove food and bacteria and promote healing.
- Gently rinse your mouth before and after meals and at bedtime with:
  - 1 teaspoon baking soda in 2 cups of water OR
  - 1 teaspoon salt, 1 teaspoon baking soda, and 1 quart water

## Changes in Taste or Smell

Your sense of taste or smell may change during your illness or treatment. Some high-protein foods such as meat may have a bitter or metallic taste. Other food may not taste good to you. Changes in taste and smell often improve after treatment is complete.

**Here are some things you can try:**

- Choose and prepare food that looks and smells good to you.
- Eat chicken, turkey, eggs, dairy products, or mild-tasting fish.
- Marinate meat, chicken, or fish in sweet fruit juices, sweet wine, Italian dressing, or sweet-and-sour sauce.
- Use small amounts of seasonings such as basil, oregano, or rosemary.
- Rinse your mouth with tea, ginger ale, salted water, or water with baking soda before eating to help clear your taste buds. You may also want to suck on a lemon wedge before a meal.
- If odors bother you, try serving food at room temperature, turning on a kitchen fan, covering food when cooking, or cooking outdoors when possible.
- Use plastic silverware.
- Visit your dentist to rule out dental problems that may be affecting your taste.

## Dry Mouth

Chemotherapy and radiation therapy to the head or neck can reduce the flow of saliva and cause a dry mouth. This may make food harder to chew or swallow. It may also change the taste of food.

### Try some of these tips:

- Carry a bottle of water with you. Have a sip of water every few minutes.
- Eat hard candy, Popsicles®, and soft or pureed food.
- Chew gum.
- Keep your lips moist with lip balm.
- Ask your doctor about products that coat, protect, and moisten your mouth.

Talk to your doctor, nurse, or registered dietitian about dealing with any eating problems you may have.

## Skin Care

Skin plays a key part in our health. The skin is the largest organ of the body and it is the first line of defense. It helps protect organs and tissues inside the body from the outside world. Skin helps to protect against infection and to keep our bodies the correct temperature.

Cancer treatments such as chemotherapy, radiation, and biotherapy may cause changes in your skin, mouth, and nails. If you are ill, in bed, or not very active, you may be at a higher risk for developing some skin damage or breakdown.

Skin and nail changes that may occur during chemotherapy and immunotherapy treatments include:

- Infections of the mucous membranes of the mouth
- Hair loss, called alopecia, from the scalp, face, and body
- Drying, cracking, darkening, or loss of fingernails or toenails
- Infections of open skin areas such as cuts or scrapes
- Increased sensitivity to the sun
- Numbness and tingling in the hands or feet
- Acne-like rash on the face and trunk of the body

Skin changes that may occur to an area being treated with radiation include:

- Redness or darkening
- Dryness
- Itching
- Peeling of the top layer of skin, which may require treatment
- Hair loss, called alopecia, at the treated area

### To protect your skin during cancer treatments:

- Drink plenty of liquids during your treatments, unless your doctor has told you to limit fluids.
- Use plenty of sunscreen. Remember to use sunscreen on your head and wear a hat or scarf when you are outside if you have hair loss in this area.
- Eat a healthful diet. Your nurse or dietitian will help you choose foods that are healthful but that do not cause mouth pain or discomfort.

- Check your mouth daily for white patches, and report these or any mouth pain to your doctor or nurse right away.
- Use non-alcohol mouthwashes and toothpastes.
- Use gentle, non-deodorant soaps to bathe. Pat skin dry and use soft towels and cloths. Do not wash off ink marks used for radiation therapy.
- Use an electric razor to avoid nicks and cuts, which could become infected.
- Wear loose-fitting cotton clothing, and wear undergarments that don't bind or constrict.
- Use only prescribed ointments, lotions, and powders at the radiation treatment site.
- Do not use deodorant, aftershave, or perfumes near these areas.
- Check skin folds that are close to the radiation site for redness or white patches, which may be a sign of infection. Tell your doctor or nurse if you find these.

Each person's skin responds differently to cancer treatments. Some people have few problems while others have more.

Talk to your doctor or nurse about your cancer treatments and what skin changes to expect. He or she can help you to prevent problems and treat them without delay.

## Sexuality and Feelings

Your first thought after you learned you had cancer may not have been about your sexual functioning. But as treatment begins and time passes, questions about your ability to have sex and a relationship may arise. You may wonder if this part of your life can be normal.

Sexual functioning and feelings are important parts of life. They can affect your outlook on life, your self-image, and your relationships with others. Everyone has a need for closeness, touch, caring, and pleasure. These remain important in life even when you are dealing with an illness such as cancer.

Cancer treatments may affect your sex life. It is important to talk about the effects of cancer treatments. Strive for good communication with both your doctor and your partner.

- Ask your doctors and nurses for information about the usual effects of your cancer treatment on sex and relationships. When you know what to expect, you can plan ways to cope.
- Keep in mind that no matter what kind of cancer treatment you have, being able to feel pleasure from touching almost always remains.
- Talk openly and honestly with your partner. Talking and hearing about each other's concerns helps you to avoid blame and to stay positive. You will each have a better sense of how the other is feeling.
- Keep an open mind about ways to experience closeness and sexual pleasure — especially if your normal routine has changed.



- Your self-image and feeling of well-being are an important part of your sexuality. Take the time to pamper yourself in ways that are relaxing and that help you to feel good about yourself.

If you would like to talk with someone about these issues or other concerns, ask your doctor or nurse. You can also talk with a counselor, or you may find a support group to be helpful.

## Distress

A diagnosis of cancer can be very difficult both for patients and for their loved ones. It may cause a great deal of distress.

Common symptoms of distress include:

- Feelings of sadness and fear
- Depression
- Anxiety
- Panic
- Loneliness
- Struggles with spiritual beliefs

Distress can be treated and managed. Counseling, support groups, relaxation, and stress management are often helpful. At times, medication may be needed.

Distress symptoms may become severe. Tell your doctor or a member of your care team if your symptoms last longer than 2 weeks or you have problems concentrating, sleeping, eating, or if you are extremely tired.

Seek treatment right away if you have thoughts of suicide. Call Netcare Access at 614-276-2273 or dial 911.

After you are diagnosed with cancer, you and your family members may want to talk to a counselor. You can check with

your insurance about provided services. There are many agencies that offer services such as counseling, support groups, and resource referrals.

In the Columbus area, call the Mount Carmel Cancer Hope Line at 614-546-HOPE (4673) and select #2 for Support and Survivorship.

Other support resources include:

- **American Cancer Society**  
614-228-8466
- **Catholic Social Services**  
614-221-5891
- **Netcare Access**  
614-276-2273
- **Jewish Family Services**  
614-231-1890
- **Lutheran Social Services of Central Ohio**  
614-228-5200

Talk with your doctor, nurse, or social worker about any concerns or questions.



## Survivorship

We want you to know that we will be a source of support to you even after you've completed your active treatment for cancer. Even after treatment, you may have questions and concerns that need to be addressed. As a cancer survivor, you may also need support services and resources.

Many patients who are transitioning into cancer survivorship will receive a Survivorship Care Plan. This detailed plan provides a record of your care so that you can move forward knowing that you will be supported and guided throughout your post-treatment care.

A Survivorship Care Plan includes:

- Details of your cancer diagnosis
- A summary of the treatment you received (surgery, chemotherapy, radiation, etc.)
- Contact information for your care team
- Guidelines on how often and who you'll be seeing for follow-up care
- Important recommendations for healthy behavior and preventive care, including managing effects of cancer treatment, watching for possible late/long-term side effects, and monitoring possible signs of recurrence or second cancers
- Information and resources for support for common concerns that cancer survivors face

# Finding Resources

There are many support groups and resources at Mount Carmel East, West, and St. Ann's. You will find emotional support, caregiver advice, resources, and financial assistance to help you as you undergo cancer treatment.

Your doctors, nurses, social workers, and dietitians are all available to help. Our community also offers many resources. Call the numbers listed for the most current information, dates, times, and locations.

## Mount Carmel Resources

### Cancer Patient Navigator Program

Mount Carmel provides a dedicated person to help you navigate through your cancer diagnosis and treatment, answering your questions and addressing your concerns. To speak with a Navigator, call 614-546-HOPE (4673).

### Jan's Place at Mount Carmel St. Ann's

This is an official American Cancer Society Resource Center. This retail shop offers cancer support products. It also includes a cancer library, computers with Internet access, classes, support groups, and medical therapy. Call 380-898-8800.

### Community Health Information Center at Mount Carmel East

This center has health education materials, including free handouts, pamphlets, brochures, and newsletters from Mount Carmel and other sources such as the American Cancer Society and the National Cancer Institute. Call 614-234-6900.

### Mount Carmel Cancer Risk Program

This program can provide useful information about your or a family member's risk for cancer. Knowing this information will help you decide whether genetic testing or further medical management may be right for you.

Call 614-546-4330 for more information or to schedule an appointment.

### Support Groups

Many support groups are offered through Mount Carmel:

- **Gynecological Cancers Support Group**  
614-234-LIFE (5433)
- **Prostate Cancer Support**  
614-234-LIFE (5433)
- **Look Good, Feel Better**  
This free class provides makeup tips for women receiving chemotherapy. Call 888-227-6446 for more information or to register.

- **Emotional Support:** A social worker can help assist individuals, couples, and families through cancer diagnosis, treatment, and recovery. Call 614-546-HOPE (4673).
- **Spiritual Direction:** This is a one-to-one process that helps with understanding and discerning God's influence in your life. Call 614-234-6655.
- **Nutritional Support:** A dietitian with special training in the needs of people undergoing cancer treatments is available for consultation. Call 614-234-4699.
- **Healthier YOU:** This Mount Carmel publication is offered three times a year. It includes current health topics and a list of classes, support groups, and resources offered to patients and community members at various Mount Carmel locations. Call 614-234-LIFE (5433) to begin your free subscription.

## Community Resources

Listed below are some programs within the central Ohio area. Check within your local area for further resources.

- **Columbus Cancer Clinic:** Offers a variety of programs and services for people undergoing cancer treatment. Call 614-263-5006.
- **Cancer Support Community:** Offers programs and support for patients and families undergoing cancer treatment. Call 614-884-4673.
- **American Cancer Society:** Offers programs and support. Call 614-228-8466.
- **Leukemia and Lymphoma Society:** Offers education as well as emotional and financial support for people with leukemia, lymphoma, Hodgkin's disease, and multiple myeloma. Call 614-476-7194.

## Cancer Information Resources

### General Cancer Information

- **American Cancer Society**  
cancer.org  
A patient-friendly website for all cancers.
- **Cancer Care**  
cancercare.org or  
cancercare.org/espanol  
A nonprofit organization for support and education related to all cancers. English and Spanish websites.
- **National Cancer Institute**  
cancer.gov or cancer.gov/espanol  
In-depth information for patients on treatments, clinical trials, and support. English and Spanish websites.
- **National Comprehensive Cancer Network**  
nccn.com
- **Cancer Clinical Trials**  
clinicaltrials.gov  
The National Institute of Health and the National Library of Medicine's searchable website on current clinical trials.

## Cancer-Specific Information

- **Colorectal Cancer**  
cancer.gov/types/colorectal  
The National Cancer Institute's website on all aspects of colorectal cancer.
- **Lung Cancer**  
lungcancer.org  
lungcanceralliance.org  
lungevity.org
- **Lymphoma**  
lymphoma.org  
The Lymphoma Research Foundation's comprehensive website for patients.
- **Melano**  
mampip.org  
Melanoma Patients Information Page (MPIP) is a noncommercial site providing support and information to melanoma patients and their families.
- **Pancreatic Cancer**  
pancan.org

## Nutrition Websites

- **American Institute for Cancer Research**  
aicr.org
- **Julie Lanford, MPH, RD, CSO, LDN**  
cancerdietitian.com
- **Academy of Nutrition and Dietetics**  
eatright.org

## Patient Financial Resources

Making quality healthcare available and affordable to everyone is part of Mount Carmel's mission. This information will help you understand your hospital bill, health insurance requirements, and financial assistance options.

### Patient Financial Services

Financial service counselors are available while you are in any of our Mount Carmel hospitals. They are also available by phone from our Patient Financial Services Department.

#### Phone Numbers:

614-234-8888 or 800-346-1009

#### Hours:

Monday–Friday 8:00 a.m.–4:45 p.m.

## Insurance

Mount Carmel accepts Medicare, Medicaid, managed care, commercial, and work-related insurance. Co-payments required by your health insurance plan are expected at the time of service.

Mount Carmel will bill your primary insurance company for you. If you have secondary insurance coverage, Mount Carmel will bill that company after your primary insurance benefits are processed.

As a patient, you assume responsibility for any charges that your insurance company denies or does not pay. If you have questions about your co-payment requirement or about other benefits, call your insurance company directly.

## Medicare

Medicare will pay only for services that it considers to be medically necessary. Before receiving services, you may be asked to sign an Advanced Beneficiary Notice if we believe that Medicare may not consider the service you're planning to be medically necessary.

You are expected to pay for all services that Medicare does not consider to be medically necessary and any other services Medicare excludes for any reason. Check your Medicare handbook for a list of services excluded by Medicare, or visit the Medicare website at [medicare.gov](http://medicare.gov).

## Financial Assistance

Mount Carmel provides our patients in need with access to financial assistance programs that help offset costs or structure workable payment plans for required medical treatment.

If you cannot pay the balance of your bill in full, contact Mount Carmel Patient Financial Services to learn about our two available options for financial assistance:

### Mount Carmel Financial Assistance Programs

These programs provide financial assistance based on your income, expenses, and other circumstances.

## Hospital Care Assurance Program (HCAP)

HCAP is available to patients who:

- Are Ohio residents
- Are not currently receiving Medicaid benefits
- Have a personal/family income that is below federal poverty guidelines

If you are eligible for this program, you will not be charged for hospital services. You will be responsible for paying your doctors' charges and any prescription drugs you take home from Mount Carmel's outpatient pharmacy. For more information, call 614-234-8796.

## Other Bills for Your Treatment

Your bill from Mount Carmel is only for hospital services. Depending upon the services you receive, you may be billed by your doctor and/or other doctors involved in your care or providing services such as radiology, pathology, or anesthesia.

If you have questions about any bill you receive other than a bill from Mount Carmel, call the office that sent the bill.

# Common Cancer Terms

Listed are some terms that you may hear in the course of your cancer treatment. You can also check [cancer.gov/dictionary](http://cancer.gov/dictionary), a service of the National Cancer Institute.

**Acute:** Coming on quickly but not lasting long.

**Adenocarcinoma:** Cancer that starts in glands or in organs that have glandular cells. Examples include cancers of the breast, bowel, and pancreas.

**Adenoma:** A noncancerous tumor.

**Adjuvant chemotherapy:** Treatment that is usually given after surgery and is aimed at cancer cells that cannot be detected but that are thought to exist because of the stage or type of cancer.

**Alternative therapy:** Therapy that is generally not viewed by the medical community as standard. Includes such practices as the taking of megadoses of vitamins or magnet therapy.

**Angiogenesis:** The process by which a tumor forms new blood vessels, which it uses to get the nutrients it needs to keep growing.

**Antibody:** A special protein made by immune system cells to help the body fight infection.

**Axillary nodes:** Lymph nodes (also called glands) found in the armpit.

**Basal cell carcinoma:** Cancer that starts in the basal cells. These cells make up a layer of the skin.

**Benign:** Noncancerous. Used to describe a swelling or growth that is not cancerous and does not spread to any other part of the body.

**Biopsy:** Procedure in which a piece of tissue is removed from the body. The tissue is looked at under a microscope to see if cancer cells are present or to make other diagnoses.

**Bone marrow:** A semi-hard, spongy substance inside bones that makes all types of blood cells.

**Bone marrow biopsy:** A procedure in which a needle is inserted into the hipbone to remove a small piece of bone marrow that is then looked at under a microscope.

**Bone marrow suppression:** When bone marrow is not making blood cells due to disease or some type of treatment or toxin (for example, chemotherapy).

**Bone marrow transplant (BMT):** A procedure in which a person is given extra bone marrow cells to replace those lost during treatment with high doses of chemotherapy and/or radiation.

**Bone scan:** A scan that looks specifically at the bones to see if cancer is present, if there is damage, or if bones are healing.

**Brachytherapy:** A procedure in which tiny, radioactive seeds are placed directly into or near a tumor or where the tumor was removed.

**Bronchogenic carcinoma:** Cancer that starts in the bronchi, the large airways of the lungs.

**Bronchoscopy:** A procedure that examines the airways that lead to the lungs. A thin, flexible, lighted tube is inserted through the nose or mouth to allow the area to be seen directly.

**Cancer in situ:** Very early cancer that has not spread to nearby tissue.

**Carcinoma:** Several kinds of cancerous growths that come from epithelial cells. These are the cells that line organs and make up the skin. See also melanoma.

**CAT scan:** A test that uses computers and X-rays to create cross-sectional pictures of the body's organs. Also called a CT scan.

**Cervical carcinoma:** Cancer that starts in the cells that line the cervix.

**Cervical nodes:** Glands in the neck and under the jaw that help defend against infection.

**Chemotherapy:** Treatment that uses drugs to destroy fast-growing cancer cells.

**Chronic:** Lasting a long time.

**Colonoscopy:** A test done by inserting a thin, flexible, lighted tube through the rectum into the colon that allows a doctor to look for abnormal growths or polyps inside the entire length of the colon.

**Combination chemotherapy:** Giving several chemotherapy drugs at the same time to increase the number of cancer cells destroyed.

**Complementary therapy:** Treatments that go along with the standard medical treatment of cancer. Examples include massage, visualization, and yoga.

**Cyst:** A sac with liquid or gel-like material inside.

**Distress:** Feeling you are having trouble managing physical and/or emotional demands.

**Drug resistance:** When cancer cells adapt so that the drug being used stops working.

**Edema:** Swelling of a part of the body due to fluid retention.

**Electrolytes:** Chemicals in the body, such as potassium and sodium, which help keep fluids in balance and organs working properly.

**Endometrial carcinoma:** Cancer that starts in the lining of the uterus.

**Endoscopic ultrasound (EUS):** A procedure done by a gastrointestinal doctor using a long, flexible, lighted tube that is inserted into the mouth or rectum to visualize a different part of the digestive system such as the pancreas.

**Endoscopy:** A procedure in which a thin, flexible, lighted tube is inserted through the mouth into the esophagus (food pipe) so that a doctor can see inside the esophagus and stomach.

**Excision:** The removal of something (tissue, organ) by cutting.

**Fine-needle aspiration:** A test in which a small needle is inserted and a sample of tissue or fluid is removed. The sample is looked at under a microscope to see if cancer cells are present. Also called needle biopsy.

**Frozen section:** A procedure in which a sample of tissue is frozen after being removed from the body, placed under a microscope, and examined for cancer cells.

**Genes:** The material that passes on traits and characteristics from parents to their children.

**Hematocrit (HcT):** The number of red blood cells in the blood. Low hematocrit can be a sign of anemia.

**Hematologist:** A doctor who treats problems and diseases of the blood and bone marrow.



**Hemoglobin (Hb):** The part of red blood cells that carries oxygen to the cells of the body.

**Hodgkin's disease:** Lymphoma, or cancer, in which the lymph nodes, spleen, or other lymphatic tissue become enlarged. Symptoms can include fever, weight loss, fatigue, and night sweats.

**Hormone:** A substance made in several organs of the body and which the body uses to control growth, reproduction, and the way the body works.

**Hospice care:** Care and support given by specially trained people to patients who are in the late stages of their lives. It may be offered at home or in the hospital.

**Ileostomy:** Surgery in which an opening is created between the small intestine and the surface of the abdomen to allow waste from the small intestine to empty into a collection bag.

**Immunity (immune system):** The body's defense against disease and infection.

**Immunosuppression:** When the immune system has been weakened or damaged and cannot fight infection or disease.

**Immunotherapy:** A type of cancer treatment that stimulates the immune system or uses antibodies. It is used only in very specific types of cancer, such as melanoma. Also called biotherapy.

**Infusion:** Putting medication or fluid into the bloodstream over a period of time.

**Lesion:** A damaged area in or on the body caused by an injury or a disease such as cancer.

**Leukemia:** Cancer of the blood in which the body makes large numbers of abnormal blood cells.

**Leukemia (acute):** A rapidly progressing cancer in which abnormal white blood cells stay very immature and cannot carry out their normal functions.

**Leukemia (chronic):** A slowly progressing cancer in which abnormal white blood cells are more mature and can carry out some of their normal functions.

**Lymphatic system:** A network of lymph nodes and vessels by which infection-fighting cells move through the body. Cancer cells can also use this network to travel and spread around the body.

**Lymphedema:** Swelling in the area drained by lymph nodes when lymph nodes have been removed or are blocked.

**Lymph nodes:** Hundreds of small, bean-shaped organs (sometimes called glands) located within specific areas of the body called the lymphatic system. They act as filters to collect and destroy bacteria. Cancer cells that may be moving through the lymphatic system can become trapped in the lymph nodes.

**Lymphoma:** Cancer of the lymphatic system.

**Malignant:** Cancerous. A growth that tends to invade and destroy nearby tissues and spread to other parts of the body.

**Malignant tumor:** A tumor made up of cancer cells (as opposed to a benign tumor, which is made up of normal cells).

**Melanoma:** Cancer of the pigment cells in the skin. It usually starts with a mole that changes in size, shape, or color.

**Metastasize:** Spread (as in cancer) from the place where the disease started to the lymph nodes and/or other organs in the body.

**MRI (magnetic resonance imaging):** A scan that uses magnetic waves to create images of the body.

**Mucosa:** Membranes that line a body part or organ, such as the mouth or bowel.

**Mucositis:** A condition in which mucous membranes swell and become inflamed.

**Needle biopsy:** A test in which a small needle is inserted and a sample of tissue or fluid is removed. The sample is looked at under a microscope to see if cancer cells are present. Also called fine-needle aspiration.

**Neoadjuvant chemotherapy:** Chemotherapy given before a planned surgery to shrink the tumor and make it easier to remove.

**Neoplasm:** An abnormal growth of cells that forms a tumor.

**Non-Hodgkin's lymphoma:** A group of cancers of the lymphatic system; for example, large cell lymphoma and B-cell lymphoma.

**Oncogene:** A gene that normally directs cell growth. If altered, it promotes the uncontrolled growth of cancer.

**Oncologist:** A doctor with special training in the treatment of cancer.

**Oncology:** The study of cancer and its treatment.

**Oncology-certified nurse (OCN):** A registered nurse who has passed a national test that proves he or she understands the specialty of oncology (cancer treatment).

**Oncology nurse navigator:** A nurse who provides information, education, and support to you and your family. The nurse navigator can refer you to support groups, classes, and other resources in the community.

**Oncology social worker:** Resource manager and support person for you and your family throughout your diagnosis, treatment, and survivorship.

**Palliative treatment:** Treatment aimed at easing pain or other physical problems caused by cancer. Its goal is to make a patient as comfortable as possible. It is not meant to cure the disease.

**Paracentesis:** Placing a needle into the abdominal cavity to remove fluid that has built up there.

**Pathological fracture:** A break in a bone that happens without trauma. Occurs at a place in the body where cancer or another disease is present.

**Pathology:** The process of looking at tissue samples and body fluids under a microscope to detect cancer cells, or to see how cancer cells have changed. A doctor who does this is called a pathologist.

**PET scan (positron emission tomography):** A computerized scan used to look for cancer in the body by detecting highly active cells that are growing rapidly.

**Phlebitis:** Pain and swelling in a vein.

**Placebo:** A substance that contains no active ingredients and is sometimes used in a clinical trial as a comparison to a substance doctors are studying. Also called a sugar pill.

**Polyp:** A bulge in the mucous membrane that has grown out of shape. Polyps can be found in the bowel, bladder, throat, and nose.

**Primary tumor:** The place where a cancer starts.

**Prognosis:** A prediction of how a disease will progress over time.

**Prophylactic medication:** Medication used to prevent or guard against a side effect of cancer treatment or of disease.

**Prosthesis:** A man-made replacement for a missing body part, such as a breast, arm, or leg.

**Protocol:** Treatment plan.

**Radiation oncologist:** A doctor who specializes in radiation therapy.

**Radiation therapy:** A form of cancer treatment that uses strong X-rays to damage or kill cancer cells.

**Radiologist:** A doctor who specializes in reading X-rays and scans.

**Recurrence:** When cancer comes back.

**Regression:** Shrinkage of a cancerous growth.

**Relapse:** Return of a cancer that has been treated and has become detectable in follow-up scans and tests.

**Remission:** When there has been no sign of cancer on follow-up tests and scans over a specific period of time.

**Renal:** Relating to the kidney.

**Sarcoma:** Cancer of the bone, cartilage, or muscle.

**Squamous cell carcinoma:** Cancer that starts in the squamous layer of the skin or in organs that are covered with squamous cells. The lungs, head, neck, prostate, and uterus have squamous cells.

**Staging:** A system doctors use to determine how far in the body cancer has spread.

**Stomatitis:** Soreness and swelling of the mouth caused by treatment. It goes away once treatment ends.

**TNM:** A system used to describe a cancer. T stands for tumor, N stands for node, and M stands for metastasis. This determines the stage of the cancer and guides doctors in choosing the best treatment.

**Tumor:** A group of cells that grow uncontrolled. It can be benign or malignant.

**Tumor markers:** Substances made by some cancer cells. They can build up in the blood or urine of people with cancer. Blood tests that can be done to detect marker levels include PSA and CA-125.

**Ultrasound examination:** A test that uses sound waves to create images of organs and other body parts.

**Wide excision:** The process of cutting away a wide area around a tumor or diseased tissue and leaving healthy, disease-free tissue.







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