

Your Cancer Care Guide



Education Resources



When do I call my doctor?

We're here to support you. If you have questions regarding side effects from your treatment, call your cancer care center. **See the contact information on the handout your care team has given you.** We'll direct your call to a nurse, who may consult with your doctor.



The Cancer Center of Western Wisconsin (CCWW) is affiliated with 3 HealthPartners sites: Amery Hospital & Clinic, Hudson Hospital & Clinic and Westfields Hospital & Clinic.

CCWW also includes Osceola Medical Center, St. Croix Regional Medical Center and Western Wisconsin Health, which aren't HealthPartners sites.

- **Cancer Center of Western Wisconsin
Amery Hospital & Clinic**
265 Griffin Street East
Amery, WI 54001
- **Cancer Center of Western Wisconsin
Hudson Hospital & Clinic**
411 Stageline Road
Hudson, WI 54016
- **Cancer Center of Western Wisconsin
Westfields Hospital & Clinic**
501 Hospital Road
New Richmond, WI 54016
- **Cancer Center of Western Wisconsin
Osceola Medical Center**
2600 65th Avenue
Osceola, WI 54020
- **Cancer Center of Western Wisconsin
St. Croix Regional Medical Center**
235 East State Street
St. Croix Falls, WI 54024
- **St. Croix Regional Medical Center
Frederic Clinic**
205 Oak Street West
Frederic, WI 54837
- **Cancer Center of Western Wisconsin
Western Wisconsin Health**
1100 Bergslien Street
Baldwin, WI 54002

Calling 911

For life-threatening symptoms, call **911**.

Calling during clinic hours

Call your care team during clinic hours for either of the following reasons:

- If you have questions about your medicines, treatment or side effects
- For lab or scan results

Some symptoms are important to tell us about but you don't need to call us right away. Depending on your symptoms, we may direct you to see your primary care clinician, or go to urgent care or the emergency center.

Calling for a mental health crisis

For confidential, nonjudgmental counseling and support 24 hours a day at no cost, ask your care team for options or call:

- National Suicide Prevention Lifeline
800-273-8255

The National Suicide Prevention Lifeline is not affiliated with the Cancer Center of Western Wisconsin.

Calling us right away

Call us right away at any time of the day or night if you experience any of the following symptoms:

- Fever higher than 100.5°F (38°C)
- Nausea or vomiting that's not relieved by anti-nausea medication within 3 to 4 hours
- Unmanaged or existing pain that worsens or doesn't get better with medicine
- Sudden shortness of breath or worsening shortness of breath
- Severe shaking or chills
- Bleeding from the nose or gums
- Blood in the urine
- Severe diarrhea (more than 3 unformed or liquid stools a day), constipation with intense abdominal cramping, or black or tarry stools
- Changes in your vision or hearing
- Confusion
- Thoughts of hurting yourself

Dear Patient and Family Members,

Welcome to your state-of-the-art community cancer center led by clinicians who are experts in their field.

We understand a cancer diagnosis is the beginning of a journey filled with many challenges. When you first receive a diagnosis, you'll likely have many questions and experience a wide range of emotions. This care guide provides information to answer your questions and support you as you start your experience.

We consider anyone who's diagnosed and living with cancer, from the time of diagnosis, and during and after treatment, a cancer survivor. We view survivorship in 3 stages:

- Diagnosis and treatment
- Right after treatment
- Long-term survivorship

Survivorship issues for each of these stages include medical concerns as well as financial, emotional, spiritual, physical and nutritional concerns. This care guide provides expert knowledge, tips and recommendations to help you navigate all stages of your cancer survivor experience. With the combined support of your care team, family, friends and loved ones, you can be assured you're being provided the best in support and care.

Your Cancer Care Center Team

Tips for using this care guide

To find the information most relevant to you, use the index that begins below or see the list of topics on the next page.

In this care guide, you'll find information about:

- Your diagnosis and our approach to your care.
- Your different treatment options.
- Support and education resources available during and after treatment.
- Common side effects from chemotherapy and radiation therapy.

Also included are blank pages to write questions for your care team and notes about your cancer experience.

We hope the information you find in this guide provides comfort and hope. Ask questions and discuss any concerns you might have with us at any time. We're here to support you in living a life of health and wellness as a cancer survivor.

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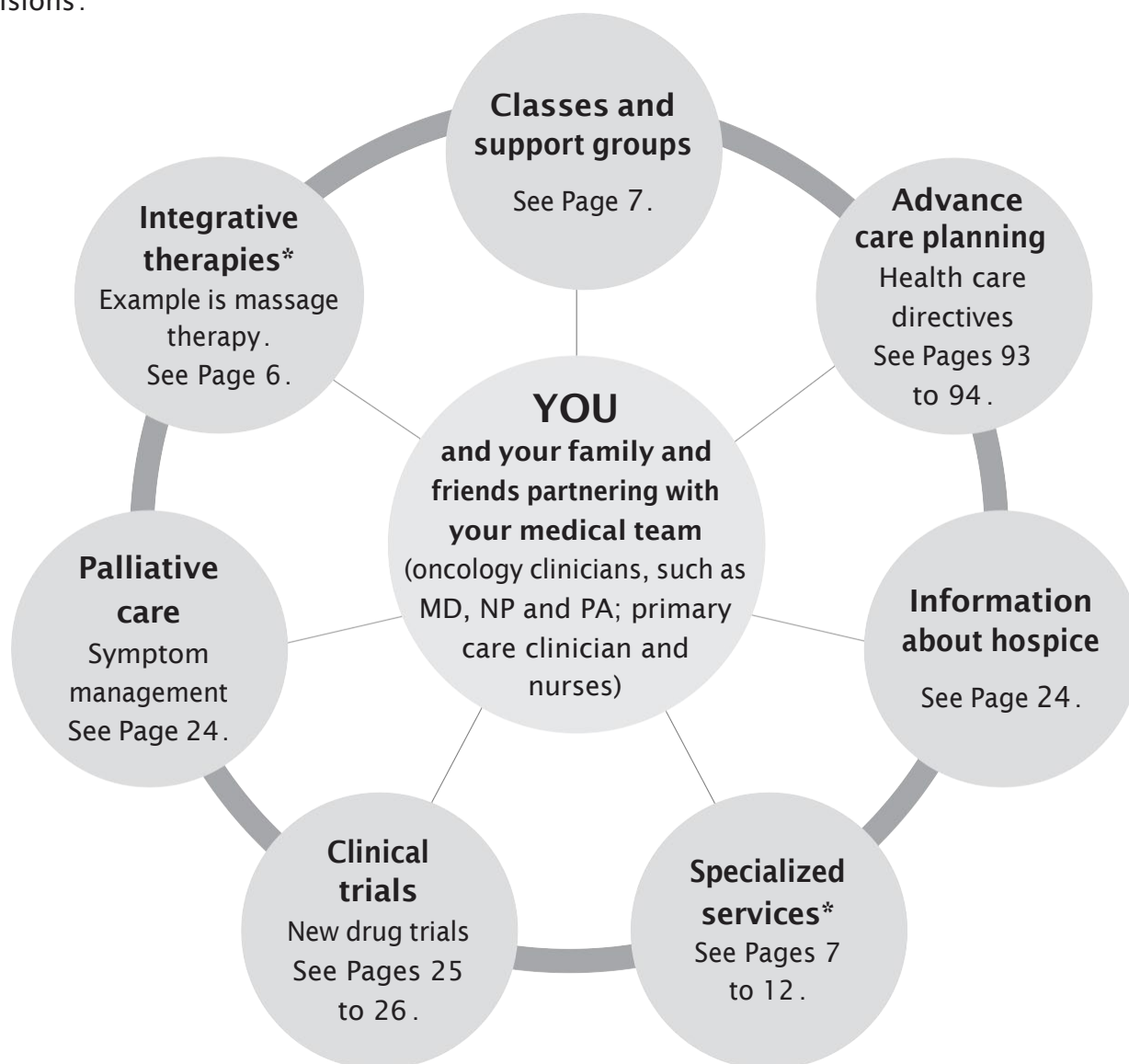
Getting to Know Your Care Team

Your care team includes your medical team surrounded by your support services team. These health care experts make sure you get the care you need. Who's on your care team depends on your needs.

A diagnosis of cancer can be overwhelming. Suddenly, you need to understand a lot of new information and make timely and difficult decisions.

Cancer is a disease that affects people physically, emotionally, mentally and spiritually. With a team of highly skilled clinicians from varied specialties, we help you find what gives you strength and hope.

To learn more about how your medical and support services team members can help you, see the tables on the next 3 pages.



* Some therapies and services may not be offered at your cancer care center. Ask your care team for more information.

Getting to Know Your Medical Team

In addition to you and your family and friends, your care team **may** include some of the medical professionals listed in the table below. These members of your medical team include highly skilled clinicians from varied specialties.

We understand that cancer affects your whole life. We work closely with other support services that are available at your cancer care center. Whenever you have questions, ask any member of your care team.

Medical team member	What they do
Advance practice clinicians	Advance practice clinicians include nurse practitioners (NPs) and physician assistants (PAs). They have advanced education and expertise. They work with doctors to manage your care together.
Nurse	Nurses, including our oncology-certified nurses and radiation nurses, provide education, assessment, treatment and support during your cancer survivor journey.
Oncologist	An oncologist is a medical doctor (MD) who specializes in cancer treatment.
Pharmacist	An outpatient pharmacist fills prescriptions and provides information about medicines. A specially trained pharmacist reviews and prepares chemotherapy.
Primary care clinician	A primary care clinician is your main health care contact and manages your care over time. This clinician provides a wide range of care, including prevention and treatment and referrals to specialists.
Radiation medical physicist	A radiation medical physicist works with radiation oncologists to plan your treatment.
Radiation oncologist	A radiation oncologist is a medical doctor who specializes in giving radiation treatment to people with cancer.
Radiation therapist	A radiation therapist gives radiation therapy under supervision of a radiation oncologist. They work together to identify the most safe and effective ways to treat cancer with radiation.



Getting to Know Your Support Services Team

In addition to receiving medical treatment for your cancer, getting the physical, emotional, practical and spiritual support you need is also important. Your cancer care center **may** offer some or all of the support resources in this section. Talk to your care team for specific information.

Your support services team works closely with other teams and departments to offer you expert compassionate support and care.

Whenever you have questions, please ask. We're here to help promote health, wellness and healing as you and your circle of support—family, friends and loved ones—cope with the challenges of cancer.

Support service	What the service does
Counseling services	Mental health professionals offer short-term cancer-focused counseling to help provide support, tools and healthy ways of coping.
Social work	An oncology social worker is involved in evaluating your needs and helping you and your family cope effectively with a variety of life changes.
Classes and support groups	Classes and groups are essential support for those experiencing cancer. When you reach out to learn with others who share similar experiences, you have the opportunity to gain insight, courage, strength and resilience.
Genetic counseling	Genetic counselors can meet with you to discuss cancer in your personal or family history (or both) to learn about your cancer risks, screening, genetic testing and ways to reduce risk.
Physical therapy	We offer different physical therapy options to support you during and after your treatment.
Occupational therapy	An occupational therapist provides comprehensive evaluation, education and direct treatment if you have impairments that affect your ability to perform activities of daily living.
Speech therapy	A speech therapist helps people whose ability to eat has been impacted during cancer treatment and helps with communication if cancer or treatment has made talking difficult.

Support service	What the service does
Other rehabilitation therapies	These services include physical medicine and rehabilitation, as well as pulmonary rehabilitation .
Nutrition	A registered dietitian nutritionist (RDN) is available to provide nutrition counseling on managing side effects and weight changes and navigating nutrition recommendations specific to your cancer diagnosis and medical history .
Advance care planning	An advance care planning social worker helps you with the process of coming to understand, discuss and plan for a time when you may not be able to make your own medical decisions .
Home care	Home care services—such as skilled nursing care, physical, occupational and speech therapy, and medical social services—may be available at home .
Sexual medicine	We provide medical and behavioral health services for a variety of sexual conditions in a confidential and caring environment .

Additional support services that may be available

Support service	What the service does
Integrative therapies	Integrative therapies, such as massage and healing touch, enhance or complement conventional cancer treatment .
Spiritual care	Chaplains provide you and your family with spiritual, religious and emotional support .



Counseling services

Psychotherapists are available to patients, families and caregivers. We offer hope, education, coping skills and support for:

- Understanding the range and intensity of your emotional reactions.
- Managing cancer-related anxiety or depression.
- Helping cope with the side effects of treatment.
- Managing the impact of cancer on your life and relationships.
- Exploring values and spirituality.
- Coping with fatigue and difficulty sleeping.
- Building a sense of control by teaching skills, such as guided imagery, relaxation or self-hypnosis.

If you're seeking counseling or psychiatric treatment, check with your health insurance provider about your plan's coverage and benefits for mental health services.

Social work

An oncology social worker is involved in evaluating your needs and helping you address questions or concerns about:

- Financial programs .
- Transportation .
- Emotional support .
- Health insurance .
- Community resources .
- Help at home .
- Caregiver support .
- Access to meals .

Professionally trained and licensed by the state of Wisconsin, our experienced social workers can help you and your family cope effectively with various life changes that may occur with a cancer diagnosis.

Classes and support groups

We've found people feel better and recover faster when they have appropriate education and support. Educational classes, groups and series are offered. Talk to any member of your care team to learn more about the classes and support groups we offer.

Genetic counseling

Most cancer occurs by chance. However, some people have a higher risk of developing cancer because of a gene error that runs in the family. Knowing about hereditary risks for cancer may help you or your family make informed decisions about cancer screening and risk reduction.

A genetic counselor can meet with you to discuss cancer in your personal or family history, or both. You'll learn about your cancer risks, screening, genetic testing and ways to reduce risk.

This section answers some common questions about hereditary cancer risk and genetic testing.

Is genetic counseling for cancer risk recommended for me?

Genetic counseling to understand your risk for cancer is recommended for people with:

- A personal or family history, or both, of:
 - » Cancer diagnosis, such as breast, colon or uterine cancer, before 50 years old.
 - » More than 2 relatives with the same type of cancer.
 - » More than 2 relatives with related cancers, such as colon and uterine cancer or breast and ovarian cancer.
 - » More than 1 cancer in the same person.
 - » Rare cancers, such as ovarian cancer or male breast cancer.
 - » More than 10 colon polyps during their lifetime.
 - » Known hereditary cancer syndrome in the family, such as a relative with a BRCA1 or BRCA2 mutation.
- Questions about your risk or your children's risk of developing cancer.

Why should I consider genetic counseling?

Genetic counseling may help you:

- Understand your risk of developing cancer—or, if you already have cancer, for developing a new cancer.
- Understand family members' risk of developing cancer.
- Make informed decisions about cancer screening or options to reduce your risk for cancer.

What's genetic testing?

Usually, genetic testing involves drawing blood. The blood is tested for inherited changes in one or more genes that may contribute to a family history of cancer.

If you have a cancer diagnosis, genetic testing may help you and your care team make decisions about treatment and surgery.

Check with your health insurance provider to confirm whether genetic counseling and genetic testing are covered by your plan.

What does the appointment involve?

Usually, genetic counseling includes 1 to 2 office visits—a 90-minute consultation and a shorter follow-up visit if you have genetic testing.



How do I prepare for my appointment?

- The genetic counselors will ask about your family history. Gather information about your children, siblings, nieces, nephews, parents, aunts, uncles, grandparents and cousins, including the types of cancers they had and their ages when those cancers occurred.
- Bring any results from other genetic tests from your relatives who've been tested already.
- Plan to arrive 10 minutes before your appointment time to allow time to check in.

Cancer rehabilitation services

Cancer rehabilitation helps restore and keep your best function and quality of life before, during and after cancer treatment.

Cancer and cancer treatment often lead to functional impairments, which means some part of your body isn't working at its best. Your daily life, recreation and work can be affected by severe fatigue, pain, joint stiffness, weakness, numbness or swelling. You may also have problems with balance, thinking, memory, speaking, eating or swallowing.

If offered at your cancer care center, most of the services listed here can be provided in the hospital (inpatient) or after going home (home care or outpatient).

Physical therapy

A physical therapist can help you restore and keep your mobility (ability to get around) by:

- Improving endurance (how long you can do an activity) and muscle strength
- Treating joint pain and dysfunction
- Addressing difficulties with balance to help prevent falls and injury as you return to physical activity

Pool therapy

Physical therapy treatment can be in a warm therapeutic pool. Pool therapy is ideal for people who have balance problems, limb or joint pain, or any condition that limits regular activity.

Occupational therapy

An occupational therapist (OT) can help restore the ability to do daily activities, including dressing, bathing, cooking and working.

OTs help you improve endurance and arm function (range of motion, strength, coordination). They also can adapt your home or work environment or recommend equipment to make daily living activities easier. OTs also teach techniques so you have more energy for activities that are important to you and your quality of life.

Speech therapy

A speech therapist can help restore function for swallowing, eating, speaking and communicating.

A speech therapist also helps address cognitive (thinking) difficulties that may occur during and after cancer treatment, such as "chemo brain" (see Page 83).

Lymphedema therapy

A lymphedema therapist educates about lymphedema (swelling) and helps those at risk with prevention. The therapist also provides treatment, using techniques such as manual lymphatic drainage massage, exercises and compression.

See Pages 85 to 86 for more information about lymphedema.

Exercise program

Some people like help getting back to activity safely. The exercise program is designed to help you increase endurance, strength and flexibility, improve balance, and decrease fatigue through exercise and education, so you can successfully continue an exercise routine on your own.

Cardiac or pulmonary rehabilitation

If your heart or lung function has been affected by cancer or cancer treatment, these rehabilitation programs can help you get back in shape safely.

Nutrition

If you have specific questions about nutrition and cancer, talk to your care team. A registered dietitian nutritionist (RDN) is available to provide nutrition counseling for a wide range of needs, such as dealing with side effects, managing weight changes and navigating nutrition recommendations. RDNs offer suggestions for meal planning and coping with problems, such as decreased appetite and weight changes, and overall guidelines for nutrition and cancer.

Scheduling an appointment

Your doctor can order a nutrition consult. Talk with your care team about scheduling an appointment.

Advance care planning

Advance care planning helps you with the process of coming to understand, discuss and plan for a time when you may not be able to make your own medical decisions. This process is important because it helps align your values, wishes and preferences with the care you'll receive. It's important to do this while you're able to make your own decisions. See Pages 93 to 94 for more information.

Home care services

Home care services may be available to provide skilled care at home. Services can include skilled nursing care, physical, occupational and speech therapy and medical social services.

Home care service may be needed when:

- Being at home can help improve or maintain your health.
- You and your family prefer care at home.
- You need continued education and support to adjust to your illness.
- Additional rehabilitative care is needed after a hospital or long-term care facility stay.

You'll need to meet certain requirements from your health insurance company to qualify for these services. If you need home care services, ask your doctor for a referral.

Sexual medicine

Sexual health and well-being play a key role in your physical and emotional health. This doesn't change with a cancer diagnosis. We believe in helping you address your sexual health concerns at whatever point in treatment you may find yourself.

Sexuality is a *biopsychosocial* process. This means that many factors contribute to sexual health concerns, often at the same time.

Examples include:

- Biological contributors, such as medical diagnosis, medications, treatments or therapies, and physical handicaps.
- Psychological contributors, such as a person's gender identity, self-esteem, emotions toward sex and sexuality, beliefs about sex and one's own body, and behaviors related to sex.
- Social contributors, such as religion, cultural background, one's ability to communicate about sex with a partner, a partner's expectations of sex and sexuality, being cared for or being a caretaker.

Sexual health concerns related to a cancer diagnosis can arise before, during and after treatment. Some of these sexual health concerns include:

- Lowered or loss of interest in sex or sexual desire
- Changes to how the body experiences arousal (erectile issues, lack of vulvar or vaginal response to sexual stimulation)
- Changes in sensitivity and the ability to achieve orgasm or climax

- Experience of pain with sexual stimulation or behaviors
- Changes to the body that can affect how a person experiences sex and sexuality, such as:
 - » Hormone changes
 - » Changes in how certain body parts work
 - » Damage to nerve endings
 - » Fatigue
 - » Nausea
 - » Bowel and bladder problems
 - » Skin problems and other changes to the overall appearance to the body
- How a partner experiences and understands their sexual lives with a person living with cancer and undergoing treatment. For many partners who are also caretakers, navigating sex during a person's cancer treatment can be a unique and worrying reality.

We strongly encourage you to talk with your cancer care team about any concerns you may have about your sexual well-being at any point in your cancer journey. If appropriate, you may be encouraged to contact a sexual medicine clinician. This clinician will work with you and your partner to address your sexual health concerns in a compassionate, comprehensive and individualized way.

Additional support services

Some people may also benefit from the following support services:

- Integrative therapies, such as massage therapy
- Spiritual care

Talk to your care team for more information on these support services .

Talking to Your Doctor

Our care team wants you to have confidence and trust in your care and to feel comfortable addressing health care questions and concerns with your doctor. Feeling comfortable talking to your doctors and care team helps get all your questions answered. When you have questions or concerns, talk to a member of your care team.

Asking questions

A new cancer diagnosis can be overwhelming. Keeping in mind important questions to ask your care team may be difficult.

You may have many questions right now or may not even be sure what to ask. Here are some questions to consider asking at your follow-up appointments.

- What type of cancer do I have?
- How common is the type of cancer I have?
- What stage is my cancer?
- What treatments do you recommend for my cancer?
- Why do you recommend these treatments?
- How well do these treatments work?
- What's my prognosis with these treatments?
- What are the short-term risks and side effects of these treatments?
- What are the long-term risks or side effects of these treatments?
- How will the treatment affect my fertility?
- How should I prepare for these treatments?
- How often and how many times will I need to come to the clinic for treatment?
- Is there a special diet I should follow to help my treatment? If yes, what kind of diet?
- Is it OK to continue working, exercising and doing my regular activities before, during and after my treatment?
- What support do you offer my family and me?

“Writing down your questions is a great idea. I remember being shocked at the amount of time that was available with my oncologist at my first appointments. There’s so much time to talk to the doctor. You can make use of the time if you’re prepared.”

— David, a cancer survivor

Emotions during Your Cancer Experience

The feelings cancer brings up are variable. Some people compare the emotional experience of dealing with cancer to a rollercoaster ride. You may feel any of the following:

- Hope for beating cancer
- Relief about starting treatment
- Concern about physical changes
- Fear of suffering, pain and death
- Sadness and distress about having to deal with cancer
- Anxiety about the future and feeling vulnerable
- Anger about having cancer

Finding positive ways to cope with your emotional ups and downs will help you throughout your cancer experience. Think about how you have successfully dealt with difficult situations in the past. Knowing what works best for you, and what doesn't, can help you gain strength and courage and be hopeful as you go through treatment.

Depression and anxiety

Most people with cancer don't experience major depression or persistent anxiety disorder. However, if you have a history of major depression, bipolar disorder or severe anxiety

before cancer, then you're very likely to have another episode of mood or anxiety symptoms either during or after cancer treatment. If you're feeling depressed or having thoughts of hurting yourself, let your care team know. We can help.

Change and loss

Cancer can bring about sudden changes in your daily life. Some of these changes are experienced as losses that affect your life.

Examples include:

- Loss of control over your schedule and work routine
- Loss of the plans you had for your immediate future
- Change in social relationships
- Change in physical appearance

Feelings of grief often follow a sense of loss or the reality of loss. Anger, sadness, frustration and fear all are expected reactions to the losses associated with cancer. The reality of how your cancer experience is affecting your life can be difficult and painful.

For information about the support available to you and your loved ones, see Pages 5 to 12.

For information about classes available to you and your loved ones, see Page 7.

Sharing Your Diagnosis

When you choose to tell others about your cancer diagnosis is up to you. Coming to terms with your own feelings about cancer can be difficult and take time.

Deciding with whom to share your diagnosis and when can be tricky. But you needn't feel alone. Sharing your feelings may be helpful and therapeutic, for you and your loved ones.

Your instinct may be to protect those close to you from worry. Or you may be concerned their reactions will upset you. However, you may find you need to rely on family and friends more than ever.

“I didn't share my diagnosis at first. As I became more comfortable, I was more open. My friends had a lot of questions. I answered what I could because it helps them too. Because of my diagnosis, one of my friends had a mammogram and found breast cancer.”

— Karen, a cancer survivor

Taking the time you need

Take the time you need before you tell other people about your diagnosis. Consider who should know about your diagnosis and how you want to tell them. Some people you might decide to tell are family members, friends, neighbors and coworkers.

You may decide to tell your supervisor or human resources personnel if your work schedule is likely to be disrupted. You can ask and expect they'll keep your news confidential. See Page 97 for information about employment rights.

The responses of others

When you share your diagnosis, people's reactions may upset, disappoint or surprise you. Usually, people don't mean to be insensitive. Sometimes, people have a personal experience that makes them uncomfortable with the situation. Or they may be shocked about the diagnosis and not know what to say or do.

Family and friends may, in fact, have similar feelings of anger, fear and confusion as you do. They may need time to adjust to your diagnosis or need to talk right away.

If someone's reaction upsets you, you don't have to respond. You can ask a supportive loved one to help you respond when you're ready.

If some family members or friends are unable to be supportive, find other people who can be there for you. Social workers, psychotherapists and spiritual counselors are also available to help.

Talking about cancer

Families and friends often have a difficult time knowing exactly what you need or what to say or do for you. People often feel uncomfortable and awkward as much as sad and scared. These are normal feelings and reactions.

The belief that you shouldn't talk about your cancer for fear of upsetting one another is common. However, talking about your cancer with a family member or a close friend can be comforting and healing. Of course, if you don't want to talk about your cancer, that's OK too.

What's most important is to be yourself and not be afraid to ask loved ones for help. Be as specific as possible. Consider asking others to run errands, buy groceries, prepare food or take care of your children or an elderly parent—whatever may make life simpler for you right now.

Sometimes, being on the receiving end of help is difficult. But helping one another in need is an important part of a relationship. Do what feels right for you.

If you have children

As a parent with cancer, worrying how your children will react to your diagnosis and treatment can increase your anxiety. Talking openly and honestly about your cancer with your children and having realistic conversations about cancer as a family is important and healthy.

Studies show telling children about a cancer diagnosis is better than holding back information, as is telling them sooner rather than later. Children who are old enough to sense something is wrong can be supportive when offered a straightforward explanation of the situation.

When children aren't told about a parent's cancer or involved in discussions about a parent's diagnosis and treatment, they may feel sad, afraid and unable to ask about the cancer. Discussing cancer with children helps them understand what's going on and be clear about what isn't happening.

“Telling my son was my biggest concern. The doctors and nurses make you feel like they have all the time in the world for you. My doctor took time to talk to my son, and she did a phenomenal job. I'll be forever grateful for her sensitive but matter-of-fact approach.”

— Betsy, a cancer survivor

Resources

Age-appropriate resources, such as those listed below, are available to help you explain to your children what cancer is and what your diagnosis means. Talk to your care team for help finding other materials.

- **Telling Kids About Cancer**

tellingkidsaboutcancer .com

A website that guides parents in discussing cancer with their children .

Treatment Basics

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Cancer Cells and Your Body

More than 100 types of cancer can affect the human body. Each type of cancer involves normal cells that become abnormal and grow out of control. To understand different treatment options, knowing how cancer cells develop is helpful.

Your body is made of billions of cells. Cells organize together to form glands, muscles, bones and other body parts.

Cells look and work differently based on where they are in your body. However, all normal cells follow a pattern of growth, division and death. Some cells follow this pattern faster than other cells do. Every day your body makes new cells to replace those that die.

Pattern of cell growth

Cancer occurs when normal cells in your body become abnormal and don't follow the normal pattern of growth, division and death. The abnormal cells can grow out of control. The cells no longer do the job they should in your body.

When a cancer cell divides, it makes more cells like itself. Cancer cells continue dividing into more cells.

Eventually, the cancer cells can crowd and destroy your body's normal, healthy cells and tissues.

Type of tumor

Abnormal cells can develop into 2 types of tumors: benign and malignant. A *benign tumor* is an abnormal growth that's not cancer. It can grow large and press on other parts of the body. It stays in one place and doesn't travel to other parts of the body.

A *malignant tumor* is cancerous and can grow very large, press on other parts of the body and travel to other parts of the body.

Type of cancer

Most cancers are named for the type of cell or the area of the body where the cancer starts. For example, breast cancer is cancer that starts in the breast.

Stage of cancer

Stage of cancer refers to whether your cancer has spread to other parts of your body. Some cancers travel through your *lymphatic system* (tissues and organs that help rid your body of toxins and waste materials) or get in your blood and spread to other parts of your body.

Metastasis is the spread of cancer cells to other parts of your body.

Grade of cancer

The grading of cancer refers to how quickly the cancer cells are growing and spreading to other parts of your body. The lower the grade, the slower the cancer cells are growing.

Exploring Your Treatment Options

Generally, the goal of treatment may be to:

- Cure the cancer.
- Control the cancer from spreading.
- Make you more comfortable.

You and your care team personalize your treatment plan based on:

- The type, stage and grade of your cancer.
- Results of physical exams, lab results and other diagnostic tests.
- Your age and medical history, including other chronic health conditions.
- Treatment options, including clinical trials, for your type, stage and grade of cancer.
- Short-term and long-term side effects and benefits of each treatment option.
- Your treatment goals, including preferences about pain management and quality of life.

The rest of this section discusses common treatment options.

Radiation therapy

Radiation therapy uses high-energy X-rays to kill cancer cells or keep them from growing and dividing. Because cancer cells grow and divide more rapidly than most normal cells, radiation therapy can successfully treat many kinds of cancer.

Usually, you receive external radiation therapy as an outpatient 5 days a week for several weeks.

Internal radiation therapy requires a procedure to implant radioactive seeds or a device near a tumor.

See Pages 32 to 35 for more detailed information about radiation therapy.

Other medicine therapies

Your care team may discuss other medicine therapies you may receive, including:

- **Hormone therapy.** Some cancers depend on hormones to grow. Hormone therapy adds, blocks or removes hormones from your body.
- **Targeted therapy.** This treatment uses medicine that blocks the spread of cancer cells and may limit damage to normal cells. Different cancers have different targets. Targeted therapy doesn't work for everyone.
- **Immunotherapy.** Biological therapies use your body's natural defenses (the immune system) to fight cancer or decrease the side effects of some cancer treatments.

Chemotherapy

Chemotherapy uses different medicines to kill fast-growing cancer cells. Chemotherapy is most commonly given intravenously (using an IV in a vein) or orally (using a pill). The medicines travel through your blood to stop or slow the growth of cancer cells.

Often, people receive chemotherapy in cycles. A cycle is alternating treatment periods with rest periods. Rest periods give your body a chance to build healthy new cells and regain strength.

The number of chemotherapy cycles you need depends on the type of cancer. You may receive chemotherapy every day, every week or every month. You and your doctor discuss the length of your treatment.

See Pages 36 to 38 for more detailed information about chemotherapy.

How are chemotherapy and radiation therapy different?

A major difference between chemotherapy and radiation therapy is the focus of the therapy.

- In chemotherapy, the medicines travel throughout your body through your bloodstream.
- In radiation therapy, the radiation is targeted directly at a specific part of your body.

Surgery

Your doctor may refer you to a surgeon for different reasons.

You may need surgery to remove a tumor when the tumor appears to be confined to one area. Tissues around the tumor and nearby lymph nodes also may be removed during surgery.

Reconstructive surgery helps restore the appearance or function of an area of your body affected by the cancer.

Other surgical procedures include placing ports (see Page 38) or feeding tubes.

Palliative care

Palliative care works to relieve suffering and improve quality of life for people with advanced illness and their families .

Designed to care for the mind, body and spirit, palliative care is provided with all other appropriate medical treatments . You don't have to stop life-prolonging medical therapies, such as chemotherapy. Instead, palliative care works along with ongoing medical care, providing an extra layer of support to your care team .

Palliative care team members may include palliative care doctors, nurse practitioners, social workers and chaplains . The goal is to make sure you have the best quality of life and receive the support and help you and your family members need .

Your doctor may refer you to palliative care .

Hospice care

Hospice is a philosophy of providing compassionate care to patients and family members . Hospice isn't a specific place, but rather services to provide individualized care where needed . Hospice can take place at home or in an assisted living facility, long-term care facility, residential hospice facility or the hospital .

The hospice care team works closely with you, your family members and your care team to create a personalized care plan for the unique medical needs as well as the emotional and spiritual needs often brought about by a life-limiting illness .

To receive hospice, you need to:

- Have a life-limiting illness .
- Have a life expectancy of months rather than years .
- No longer be receiving treatment to cure the illness .
- Have a referral from your clinician .

Clinical Trials

Why participate in clinical trials?

Cancer affects us all, whether we have it, care about someone who does or worry about getting it in the future. Clinical trials contribute to knowledge and progress against cancer. If a new treatment proves effective in a study, it may become a new standard treatment that can help many patients. Today's most effective standard treatments are based on previous study results.

Clinical trials offer the most promising new ways to:

- Treat cancer.
- Manage symptoms of cancer or side effects from treatment.
- Screen and diagnose cancer.
- Prevent cancer.

We participate in clinical trials because we want to improve the health and quality of life of our patients. All of the cancer medicines that people currently use as part of their treatment came from clinical trials. With the participation of people like you, new medicines can be approved for use.

What's a clinical trial?

New tests and treatments aren't offered to the public as soon as they're made. They first need to be studied. A clinical trial is a type of research that studies a test or treatment given to people to see how safe and helpful it is.

A clinical trial is done only when there's reason to believe a new test or treatment may improve the care of patients.

Who can participate in clinical trials?

Any time anyone needs treatment for cancer, clinical trials are an option to consider. Trials are **not** only for people who have advanced cancer that's not responding to treatment. Trials are available for **all** stages of cancer.

To join a clinical trial, you must meet the conditions of the study. Even if you qualify for the study, choosing to join a clinical trial is something only you, those close to you and your care team can decide together.

What are the benefits and drawbacks of participating?

Like all treatment options, clinical trials have possible benefits and drawbacks. By looking closely at all options, including clinical trials, you're taking an active role in a decision that affects your life.

Possible benefits

- You'll have access to new treatment that's not available to people outside of the trial.
- The research team will watch you closely.
- If the treatment being studied is more effective than the standard treatment, you may be among the first to benefit.
- The trial may help scientists learn more about cancer and help people in the future.

Possible drawbacks

- The new treatment may not be better than—or even as good as—the standard treatment.
- New treatments may have side effects that doctors don't expect or that are worse than those of the standard treatment.
- You may be required to make more visits to the doctor than if you were receiving standard treatment, or you may need to have extra tests.
- Even if a new treatment has benefits in some patients, it may not work for you.

What clinical trials are available?

As our patient, you have access to several clinical trials for any type of cancer at any stage. Talk with your doctor about finding clinical trials that may be right for you. If your doctor offers you a trial, here are some questions you may want to ask:

- What's the purpose of the study?
- What kinds of tests and treatments does the study involve?
- What does the treatment do?
- Has the treatment been used before? Has it been used for other types of cancers?
- Will I know which treatment I receive?
- What's likely to happen to me with, or without, this new treatment?

You can also explore the resource listed below for more information about clinical trials that may be available at your cancer care center. Ask your care team for more information.

- **Cancer Research Center (CRC)**
healthpartners.com/institute/centers/cancer-research-center

- » Provides access to Phase I (the first step in testing new treatments in human patients), as well as Phase II, III and IV clinical trials. Also provides access to unique studies to help treat side effects from your cancer treatment.
- » **Metro-Minnesota Community Oncology Research Consortium (MMCORC)**
mmcorc.org
Provides access to more than 100 cancer treatment and prevention studies sponsored by the National Cancer Institute (NCI) and participating community hospitals and clinics.

Additional resources

The following resources provide additional information about clinical trials:

- **What Are Clinical Trials?** by the National Cancer Institute.
cancer.gov/about-cancer/treatment/clinical-trials/what-are-trials
- **ClinicalTrials.gov** by the National Institutes of Health, U.S. National Library of Medicine.
 - » Provides answers to frequently asked questions about clinical trials.
 - » Offers glossary of clinical trials terms.
- **Clinical Trials** by the National Comprehensive Cancer Network (NCCN).
nccn.org/education-research/nccn-oncology-research-program/clinical-trials

Information from the National Cancer Institute (cancer.gov) and the National Comprehensive Cancer Network (nccn.org) was used in this section.

Medical Tests and Procedures

Getting test results

Usually, test results are available within 2 to 3 days. If you have questions or concerns about your results, call your care team.

Some lab results are released automatically to your electronic medical record, which you can view by signing in to your online account. Talk with any member of your care team about signing up for an online account.

You may see some test results before you talk with your care team. Your care team will help you understand the results and what they mean.

Imaging exams

Imaging exams help your oncologist:

- See if the cancer is in more than 1 spot.
- Decide what treatment is best for you.
- Measure how well your cancer treatment is working.

The table below describes common imaging exams.

Type of imaging exam	What the imaging exam shows
Bone scan	A bone scan evaluates the structure of your bones. A low-dose radioactive dye is injected into a vein and images are taken. Dye that gathers in a specific area suggests an abnormality.
Computerized tomography (CT) scan	A CT scan is an exam that makes detailed pictures of the inside of your body.
Magnetic resonance imaging (MRI) scan	An MRI scan diagnoses abnormalities and diseases not seen on X-rays. MRI scans produce high-quality images (pictures) without using radiation.
Positron emission tomography (PET) scan	A PET scan is an exam in which a small amount of radioactive glucose (sugar) is injected into a vein. A scanner then makes pictures of your body where the glucose is used. Cancer cells often use more glucose than normal cells. The pictures help find cancer cells.
Ultrasound	Ultrasound uses high-frequency sound waves to outline a part of the body. An ultrasound can show if a structure is solid or liquid.
X-ray	X-rays are a form of radiation that can show an image of cancer in your body or bones.

Biopsies

A *biopsy* is a procedure that involves taking a small piece of tissue for sampling to check for cancer cells. Biopsies can be done surgically or with a needle. A biopsy helps your oncologist identify your type of cancer.

Blood tests

Regular blood tests also help your oncologist check your white blood cell count, red blood cell count, platelet count, tumor markers, electrolytes, liver function and kidney function during treatment. Your treatment plan may change based on your blood test results. Some people require blood or platelet transfusions to increase low blood counts. See Page 49 for more information about how your blood test results may affect your chemotherapy. The table below describes common blood tests.

Type of blood test	What the blood test measures
Electrolytes	Electrolytes are minerals, such as sodium (Na) and potassium (K+), found in your body. A blood test measures the levels of electrolytes and carbon dioxide in your blood. These levels can be low if you don't have enough fluids.
Kidney function	A blood test checking creatinine (Cr) levels determines how well your kidneys are working.
Liver function	A blood test checks how well your liver is working.
Platelet count	Platelets (Plt), along with other parts of the blood, form clots that stop bleeding. A platelet count is a blood test that counts the number of platelets in your blood.
Red blood cell count	Red blood cells (RBC) carry oxygen to all parts of the body. A blood test counts the number of red blood cells.
Tumor markers	Tumor markers are substances produced by a cancerous tumor. These tumor markers help determine if the treatment is working. Not all tumors have tumor markers to measure.
White blood cell count	White blood cells (WBC) work to fight infections. A blood test counts the number of white blood cells.

Managing Your Medicine

Taking medicine can be confusing, especially if you aren't used to taking any or if you need to take several medicines a day. Sometimes, taking a medicine can be difficult if it has side effects.

However, taking all your medicines exactly as your doctor instructs is important. Some side effects go away or lessen after a few days.

Tips for taking your medicine

To help take your medicine safely and effectively, follow these tips:

- Make sure you understand the following:
 - » The names of your medicines
 - » Why you're taking each medicine and the expected results
 - » How often and when to take the medicine
 - » How much medicine to take each time
- Ask your doctor and pharmacist about side effects and what to do about them.
- Talk with your doctor and pharmacist before taking any nutritional supplements or over-the-counter medicines, including pain relievers. Some over-the-counter medicines or supplements may negatively affect your prescription medicine and cause side effects.
- Take all your medicine, even if you feel fine. Do not stop taking a medicine before first talking with your doctor.
- If you miss a dose or take an incorrect dose of medicine, call your doctor.
- Tell your doctor and pharmacist right away if you're:
 - » Having uncomfortable side effects.
 - » Not getting enough relief.
 - » Having difficulty swallowing a pill or tablet or otherwise taking a medicine.
- Take your medicine exactly as prescribed. Do not chew, crush or break any capsules or tablets unless your doctor or pharmacist says it's OK.
- Know which medicines to take with food or on an empty stomach. Some medicines get into your blood better if you have a full stomach and some if you have an empty stomach.
- Use caution when driving a vehicle or operating dangerous machinery while taking prescription medicine for pain or medicine to help you sleep.

Refilling prescriptions

- Submit your refill requests to the pharmacy **at least 7 days** before you run out of medicine to avoid any missed doses. A bottle marked "no refill" doesn't mean you should stop taking the medicine. *No refill* means the pharmacy needs to check with your doctor before refilling the prescription.
- Call your pharmacy to request a refill of prescription pain medicine.

When you need opioid medicine

Opioids are powerful medicines that may be used for a short time to relieve pain. Opioid medicines don't cure a health problem and don't get rid of pain. Rather, they help you manage your pain while your body is healing.

What to know about opioids

Keep the following in mind if your doctor has prescribed opioids for short-term management of your pain:

- Although opioids may be effective in relieving pain for a short time, they can actually make pain worse over time. Opioids affect your nervous system by increasing your pain sensitivity so you can end up experiencing more intense pain.
 - Opioids can cause nausea, vomiting, depression, constipation, low sex hormones, breathing difficulty and death.
- The longer you take opioids, the higher the dose you'll need to relieve pain. This can quickly lead to addiction.
However, for people with advanced and incurable cancer, opioids may be needed to palliate (ease) symptoms until the end of life. Addiction in those cases is usually of less concern.
 - Use caution when driving a vehicle or operating dangerous machinery while taking opioid medicine.
 - Taking too much opioid medicine at one time—an overdose—can cause death. To avoid an overdose:
 - » Do not break, crush or chew a pill. Do not cut or tear a patch.
 - » Do not drink alcohol or take illegal drugs while taking opioids.
 - » Do not take opioid medicine with other sedating medicines, such as benzodiazepines (tranquilizers) and sleeping medicines. Examples of these types of medicines include diazepam (Valium), lorazepam (Ativan), alprazolam (Xanax) and zolpidem (Ambien).
 - » Keep your medicine in a safe and secure place away from children and pets, preferably a locked location.
 - » Take your medicine as prescribed. It's OK if you miss a dose. However, if you miss a dose, don't double your next dose. If your pain is managed without your medicine, you can stop taking it.

Other medicines to manage pain

Pain can often be managed just as well without opioids. Other medicines used for pain management have fewer side effects and risks. Talk with your doctor about these options.

Managing pain without medicine

Methods other than medicine can also help manage pain. These methods include:

- **Positioning.** Adjusting your body into different positions can relieve pressure.
- **Cold therapy.** Cold therapy, such as using cold packs or ice, helps reduce swelling and inflammation. However, if your treatment includes radiation therapy, do **not** use cold therapy on the area of your body that's receiving radiation.
- **Relaxation.** Meditation, prayer and yoga help relieve anxiety and muscle tension.
- **Massage.** Massage relieves tension in tired, achy parts of the body.
- **Music.** Music can help take your mind off the pain.
- **Positive thinking.** People who stay positive and hopeful may feel less pain or feel less bothered by pain than people who don't think as positively.

Remember to move

When you're in pain, you might want to be less active. But when you have pain, being inactive can be harmful.

Getting back to regular activities is important in your recovery, even if you experience some discomfort. Being inactive for too long can increase stiffness and pain.

What's Radiation Therapy?

Radiation therapy is a cancer treatment that can stop cancer cells from spreading and growing. Radiation therapy is also called *X-ray therapy* or *radiotherapy*.

How radiation therapy works

Radiation therapy uses high doses of radiation, similar to an X-ray, to destroy fast-growing cancer cells. When the cancer cells can't divide, they die. Radiation therapy focuses the high-energy X-rays on the specific part of the body that has cancer.

Choosing radiation therapy

You and your care team will decide if radiation therapy is part of your treatment plan and, if so, how to use radiation therapy to treat your cancer.

- Radiation therapy may be used as your only treatment to cure or control cancer.
- Radiation therapy may be used in combination with other treatments, such as chemotherapy or surgery.

Finding out the type, amount and duration of radiation therapy

The radiation therapy you receive will be specific to you and your treatment needs. The amount and type of radiation you receive depend on the size and location of the cancer. Your care team will discuss specific additional considerations with you.

The type and the duration of your radiation therapy depend on several factors:

- Type of cancer
- Stage of cancer
- Location (organs) of cancer
- Goals of treatment—cure cancer, control its growth or relieve cancer symptoms, such as pain

How Can Radiation Therapy Be Used in My Treatment Plan?

Radiation therapy can be used to:

- **Cure cancer.** Radiation therapy can kill cancer cells and stop them from growing back.
- **Control cancer.** Radiation therapy can slow the growth of cancer. It can also stop cancer from spreading to other parts of your body.
- **Relieve cancer symptoms.** When cancer doesn't have a cure, radiation therapy can ease pain.

Neoadjuvant radiation

Radiation therapy used **before** other treatments is called *neoadjuvant radiation*. For example, radiation therapy can be used to make a tumor smaller before surgery when used with chemotherapy.

Adjuvant radiation

Radiation therapy used **after** other treatments is called *adjuvant radiation*. Radiation therapy can be used to kill cancer cells that stayed in the body or spread, or to help prevent cancer from returning.

Concurrent chemoradiation

Radiation therapy used on the same day as chemotherapy is called *concurrent chemoradiation therapy (CCRT)*. See Pages 36 to 38 for more information on chemotherapy.

How's Radiation Therapy Given?

Radiation therapy can be given 2 ways—through an external beam or internally. For some people, the treatment plan may include both.

External beam radiation

External beam radiation is the most common form of radiation therapy. External beam radiation is given by a large machine that directs the radiation beams to a specific part of your body. The machine moves around your body but doesn't touch you.

Preparing to start external beam radiation

Before your first radiation therapy session, you'll meet with your care team for a medical exam and an information session. Ask any questions you have about radiation therapy and side effects.

You'll also have an appointment to prepare for your treatment. At this appointment, sometimes called a *simulation or marking session*, your care team will find out where to target the radiation and complete a treatment schedule.

The location for radiation may be marked on your body with a small tattoo or colored ink. These marks are how the radiation therapist targets the radiation at the correct place in your body. Sometimes, a mask is made to help prevent your head and neck from moving during treatments, if your head or neck, or both, are being treated. Sometimes, other molds are made to prevent your body from moving during treatment.

Frequency of external beam radiation

Radiation therapy usually is given 1 time a day, 5 days a week, Monday through Friday. Radiation therapy isn't given on Saturday, Sunday or holidays, except for emergencies.

The number of weeks you have radiation therapy depends on your treatment plan. Your course of treatment depends on many factors that your care team will discuss with you.

Stereotactic radiation therapy

A form of external beam radiation therapy is called *stereotactic radiation therapy*. This treatment uses focused radiation beams to target a well-defined tumor and deliver the radiation with extreme accuracy.

The 2 types of stereotactic radiation are:

- **Stereotactic radiosurgery (SRS).** SRS can deliver precisely targeted radiation treatments to the brain in fewer high-dose treatments than traditional radiation therapy. Fewer treatments can help preserve healthy tissue.
- **Stereotactic body radiation therapy (SBRT).** In SBRT, the precisely targeted radiation treatments are delivered within the body, except for the brain.

Weekly visits with your doctor

At least 1 time a week, you'll meet with your doctor and nurse in an exam room to discuss your treatment. Be sure to ask questions or discuss concerns you may have.

Between weekly visits, feel free to talk with us about your treatments or ask questions regarding any side effects. Report any concerns to your radiation therapist or nurse.

Lab work

Your doctor may order lab work (blood counts) for you as needed.

- Let your nurse know if you're having your blood drawn at another clinic so we don't repeat the test.
- Let us know if you have a port or other central line, as we need to schedule your blood draw in the IV therapy area.

Internal radiation

Internal radiation is a cancer treatment where the source of radiation is placed inside your body. Unlike external beam radiation, internal radiation doesn't use radiation beams, such as X-rays, to direct radiation to the cancer cells. The radiation source is radioactive seeds.

Preparing to start internal radiation

Before the internal radiation is placed in your body, you'll meet with your care team for a medical exam and an information session. Ask any questions you have about internal radiation therapy, side effects and preparation for the procedure.

Placement of internal radiation

Internal radiation is placed in your body using a small, soft tube called a *catheter* or a larger piece of equipment called an *applicator*. After the catheter or applicator is in your body, the internal radiation source is inserted.

Brachytherapy

A form of internal radiation is called *brachytherapy*. In brachytherapy, radioactive material is placed as close as possible to the cancer cells. This limits the dose of radiation to a small part of the body so the radiation harms as few normal cells as possible.

The different types of brachytherapy are:

- **High-dose rate (HDR) implants.** In HDR brachytherapy, a precise dosage of radiation is delivered through an applicator positioned within your body. After your treatment, the radioactive source is removed.

You can do HDR brachytherapy as an outpatient, so you don't have to stay in the hospital overnight. The treatment can be delivered in a few minutes. Usually, side effects and recovery time are minimal.

- **Permanent implants.** A permanent implant stays in your body forever. The catheter is removed after the radiation source is in your body.

The radiation decreases the longer it's in your body. Eventually, most of the radiation goes away. Your care team will discuss specific precautions to take while the radiation is most active.

What's Chemotherapy?

Chemotherapy is a cancer treatment that uses medicine to kill fast-growing cancer cells. The medicine travels through your blood to stop or slow the growth of cancer cells.

Choosing chemotherapy

You and your care team will decide whether chemotherapy is part of your treatment plan.

- Chemotherapy may be given by IV or by pill.
- Chemotherapy may be used as your only treatment to cure or control cancer.
- Chemotherapy may be used in combination with other treatments, such as radiation therapy or surgery.

Finding out the amount and duration of chemotherapy

When your care team selects chemotherapy for your treatment, they also take into consideration your health history, including whether you've had chemotherapy before or have other health issues.

The amount and the duration of your chemotherapy depend on several factors:

- Other medicines you currently take
- Your type, stage and grade of cancer
- Goals of treatment—cure cancer, control its growth or relieve cancer symptoms

Chemotherapy can be used to:

- **Cure cancer.** The medicines can kill the cancer cells and stop cancer from growing back.
- **Control cancer.** The medicines can slow the growth of cancer.
- **Relieve cancer symptoms.** The medicines help ease symptoms when the cancer can't be cured.

How Can Chemotherapy Be Used in My Treatment Plan?

Chemotherapy uses many different medicines to treat cancer. Your treatment plan for chemotherapy might involve one medicine or a combination of medicines.

Neoadjuvant chemotherapy

Neoadjuvant chemotherapy is chemotherapy used **before** other treatments. For example, chemotherapy may be used to make a tumor smaller before doing surgery to remove the tumor.

Adjuvant chemotherapy

Adjuvant chemotherapy is chemotherapy used **after** other treatments. For example, chemotherapy may be used after radiation treatment to kill remaining cancer cells or cancer cells that have spread elsewhere in the body. Adjuvant chemotherapy helps prevent cancer from returning.

Concurrent chemoradiation

Chemotherapy used on the same day as radiation therapy is called *concurrent chemoradiation therapy (CCRT)*. See Pages 32 to 35 for more information on radiation therapy.

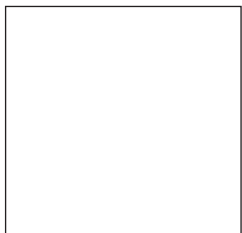

Taking other medicines during chemotherapy

Before and during chemotherapy, be sure to tell your doctor and pharmacist about each medicine you're taking or if you're going to start taking any new medicine, including:

- Prescriptions
- Over-the-counter medicines
- Vitamins, minerals and herbal supplements
- Nonsteroidal anti-inflammatory drugs (NSAIDs), such as ibuprofen (Advil, Motrin, Aleve)

How's Chemotherapy Given?

Methods of giving chemotherapy

Method	Description
Port-a-cath (IV) 	A port is a small, round disc. A port can be made of metal or plastic. The port stays in your body just under the skin. The port connects to a catheter (thin tube) in a large vein, usually in your chest. The port may be used to give IV medicine or to draw blood. A needle is needed to use the port.
Central line (IV) 	A small, soft tube stays in your body throughout your cancer treatment. Medicines can be given through the tube, called a <i>line</i> , and blood can be drawn. A central line is placed in a large, central vein, usually in your chest or upper arm.
IV catheter	An IV catheter is a small, soft tube that's placed in your arm. Medicines can be given through the catheter. The catheter is removed after each day of treatment.
Pill or liquid	Certain chemotherapies are taken by mouth (orally). Not all chemotherapy medicines can be taken orally. Some chemotherapy, including many targeted therapy medicines, can be given only orally. Your care team will provide you with instructions on how to take your medicine.
Injection	Medicines are injected with a needle (a shot), either into a muscle (intramuscular) in your arm, thigh or hip, or right under the skin (subcutaneous) in your arm, leg or stomach.
Intraperitoneal (IP)	Medicines are given directly into a space in your abdomen called the peritoneal cavity by using a catheter or port.
Intrathecal (IT)	Medicines are injected through a needle into the spinal cord.

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When to Call

See the contact information on the handout your care team has given you.
We'll direct your call to a nurse, who may consult with your doctor .

Calling us right away

Call us right away at any time of the day or night if you experience any of the following symptoms:

- Fever higher than 100.5°F (38°C)
- Nausea or vomiting that's not relieved by antinausea medicine within 3 to 4 hours
- Unmanaged or existing pain that worsens or doesn't get better with medicine
- Sudden shortness of breath or worsening shortness of breath
- Severe shaking or chills
- Bleeding from the nose or gums
- Blood in the urine
- Severe diarrhea (more than 3 unformed or liquid stools a day), constipation with intense abdominal cramping, or black or tarry stools
- Changes in your vision or hearing
- Confusion
- Thoughts of hurting yourself

Common Side Effects of Radiation Therapy

Radiation therapy can cause side effects because it may damage the healthy cells in the treatment area. Having a treatment that makes you feel worse instead of better can be frustrating and discouraging. But try not to let side effects keep you from following your treatment plan. Talk to your care team about managing your side effects.

Side effects and effectiveness of treatment

Generally, side effects have no relationship to how well the radiation treatment is working. Your experience with side effects depends on the medicine you take, other cancer treatments, your body's response to treatment and the area of your body being treated.

Common side effects

Two of the most common side effects are skin changes and fatigue. You may experience these side effects or others. Some people have no side effects or very few.

Managing side effects

Usually, you can manage short-term side effects with help from your care team. The side effects you may have depend on the area of your body receiving radiation therapy.

Your care team will give you a handout with information about the specific side effects you're most likely to have and recommendations for how to manage them.

Most side effects are temporary

Usually, most side effects end about 2 months after radiation therapy is over. But you may experience long-term side effects. See Pages 83 to 86 for information about long-term side effects, such as infertility or lymphedema. Be sure to talk with your care team about the possible long-term side effects of radiation therapy.

Fatigue

Many people continue to work and participate in daily activities during external radiation therapy. During your course of treatments, you may experience a mild to moderate loss of energy.

Fatigue is more than being tired. Fatigue is a feeling of exhaustion or lack of energy.

Rest may not help fully relieve fatigue. Your legs may ache during regular activities. You may not be able to complete some of your regular routines. Fatigue affects everyone differently.

What to do

- Go to bed at night and get up in the morning at the same time every day. Sleep for at least 8 hours a night.
- Rest as needed during the day, but limit naps to less than 1 hour.
- Schedule regular rest periods.
- Do light physical activity, such as walking, that restores or increases your energy.
- Eat small, healthy meals and drink lots of water.

Skin changes

Your skin will begin to change about 2 to 3 weeks after your first radiation treatment. Skin changes occur with all types of external radiation therapy.

During radiation therapy, your skin cells are exposed to radiation on a daily basis. The skin cells may die, and they can't grow fast enough between treatments.

Radiation therapy can cause your skin to be red, itchy, dry, peeling or swollen. Your skin may also become moist. This happens if the radiation kills skin cells that peel off before other skin can grow.

What to do

- Do not use hot tubs, heating pads, hot water bottles, compresses or ice packs or anything else that's very hot or very cold on your skin.
- Take a short, cool shower or lukewarm bath instead of a hot, long bath. You can also take a sponge bath.
- Do not use any lotions, oils, powders, ointments, medicines or bandages in the treatment area until you discuss the treatment with your care team.
- If your skin becomes irritated, ask your doctor for a recommendation for a moisturizer, cream or lotion for your skin.
- Do not apply any creams for 4 hours before coming in for your treatment. Your skin must be free of all skin care products when you're treated.

- Do not use a razor in the treatment area. If you need to shave, try an electric shaver .
- Wear loose-fitting clothes that allow your skin to breathe . Do not wear anything too tight, like tight jeans, tights, pantyhose or other tight clothes . If you're receiving radiation therapy in your pelvic area, you may feel more comfortable wearing only a bathrobe with no underwear when you're at home .
 - » If you have a penis, wear cotton boxer shorts instead of jockey shorts .
 - » If you have a vagina, wear cotton underwear . Do not wear anything too tight .
- » Butter, cream cheese, sour cream and gravy
- » Fruit
- » Milkshakes or ice cream
- » Whole milk, juice and meal replacement drinks
- Do physical activity before eating to increase your appetite .
- Make eating enjoyable . Eat with friends or family, or try a new recipe .
- If your mouth is dry:
 - » Drink more water .
 - » Do not use toothpaste or mouthwash that contains alcohol .

For more about dry mouth, see Page 55 .

Appetite changes

Many people lose their appetite during radiation therapy, due to nausea, pain or depression . Getting good nutrition, even when you don't feel like eating, is important so you remain strong and avoid losing weight .

Let your care team know if you're having trouble swallowing or eating, weight loss (more than 5 to 10 pounds in a month), pain, nausea or vomiting .

What to do

- Eat small snacks or meals 5 to 6 times a day .
- Eat foods high in protein and calories, such as:
 - » Soups (creamy, bean, split pea and lentil)
 - » Meat, chicken, fish, eggs, peanut butter, nuts and seeds
 - » Yogurt, cottage cheese and cheese
 - » Muffins, croissants and crackers

Common Side Effects of Chemotherapy

Chemotherapy often causes side effects that interfere with daily life . If you're having side effects from a medicine, talk with your oncologist . Your doctor may be able to give you medicines to manage your side effects or may find a different medicine to try .

Chemotherapy targets your body's fast-growing cancer cells . Unfortunately, chemotherapy may also affect other fast-growing healthy cells in your body, such as those that make your hair grow and keep your mouth and intestines healthy . The loss of these healthy cells causes side effects .

Side effects and effectiveness of treatment

Generally, side effects aren't a sign of how well your chemotherapy treatment is working . Your experience with side effects depends on the medicine you take and your body's response .

Most side effects are temporary

Most side effects usually end when your chemotherapy ends . However, you may experience long-term side effects . See Pages 83 to 86 for information about long-term side effects, such as infertility or organ damage . Talk with your care team about the possible long-term side effects of your chemotherapy .

Possible side effects

Side effects of chemotherapy vary based on the medicine taken . The most common side effects include fatigue, nausea, vomiting and hair loss . You may experience these side effects or others . Some people have no side effects or very few .

Talk to your care team about the side effects you may experience . Usually, you and your care team can manage short-term side effects . The following section reviews possible side effects and recommendations for how to manage them .

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Home safety during chemotherapy

Hugging, kissing and being around your friends, family and children are safe to do during chemotherapy .

For **48 hours** after a chemotherapy treatment, follow these guidelines to protect yourself and your caregivers:

- Sit down on the toilet . After using the toilet, close the lid and flush 2 times . Wash your hands well with soap and water .
- Wear disposable gloves when you or your caregiver clean up spilled waste material, such as urine, stool, vomit, semen or vaginal secretions . Wash hands before and after taking the gloves off .
- Wash linens separately that have any waste material, such as urine, stool or vomit .
- Use condoms during oral sex or intercourse .



Anemia

Anemia is caused by a low red blood cell count . Red blood cells bring oxygen and nutrients from your lungs to the rest of your body .

When you don't have enough red blood cells, your body doesn't have enough oxygen to work as well as it usually does . You may feel tired, dizzy, faint, out of breath or cold . You also may have headaches, a rapid heartbeat and pale skin .

Throughout chemotherapy treatment, your care team checks your red blood cell count . Depending on the results of your tests, you may need a blood transfusion (a procedure that transfers blood or blood products into your blood stream) .

What to do

- Call your care team if:
 - » You can't catch your breath .
 - » You feel dizzy or as if you're going to faint .
 - » Your heart is pounding or beating very fast .
- Get enough sleep . Aim for at least 8 hours a night .
- Rest in between activities or consider skipping some activities .
- Stop any activity that increases your heart rate significantly (heart feels as if it's pounding) or when you can't catch your breath .
- Ask for and accept help when people offer .

Appetite changes

Many people lose their appetite during chemotherapy . Getting good nutrition, even when you don't feel like eating, is important so

you remain strong and avoid losing muscle mass and unwanted weight loss .

Let your care team know if you have trouble swallowing or eating, weight loss or weight gain (more than 5 to 10 pounds in a month), pain, nausea or vomiting .

What to do if appetite decreases

- Do physical activity before eating to increase your appetite .
- Eat small snacks or meals 5 to 6 times a day .
- Focus on foods high in protein and calories as you're able .
 - » Soups (creamy, bean, split pea and lentil)
 - » Meat, chicken, fish, eggs, peanut butter, nuts and seeds
 - » Yogurt, cottage cheese and cheese
 - » Muffins, croissants and crackers
 - » Butter, cream cheese, sour cream and gravy
 - » Fruit
 - » Milkshakes or ice cream
 - » Whole milk, juice and meal replacement drinks
- Make eating enjoyable . Eat with friends or family, or try a new recipe .
- If your mouth is dry:
 - » Drink more water .
 - » Do not use toothpaste or mouthwash that contains alcohol .

For more about dry mouth, see Page 55 .

Bleeding

Bleeding is caused by low levels of platelets in your blood . Platelets help your blood clot .

Without enough platelets in your blood, you may experience bruising (bleeding under the skin) even without an injury . You may also have bleeding from the nose, mouth or rectum .

Throughout chemotherapy treatment, your care team checks your platelet levels . Depending on the results of your blood tests, you may need a platelet transfusion or other treatment to increase your platelet levels .

What to do

- Call your care team if you have any of these symptoms:
 - » Unusual bruising or bleeding
 - » Black or bloody stools
 - » Heavy bleeding during your menstrual period or bleeding for longer than usual
 - » Vaginal bleeding not caused by your period
- Use a soft toothbrush .
- Do not use toothpicks or dental floss .
- Use an electric razor instead of a razor with a blade .
- Take extra care when handling knives and scissors .
- Wear comfortable, loose clothes .

Changes in smell and taste

Your senses of smell and taste may change during your chemotherapy . Food may not taste or smell as good to you, or may taste bitter or metallic .

What to do

- Pick food that looks and smells good .
- Try substituting a food that doesn't smell or taste good to you with something else . For example, try chicken instead of beef .
- Marinate foods . Many protein sources, such as red meat, chicken and fish, can be soaked in a marinade for more flavor . While marinating food, leave it in the refrigerator .
- Add sugar . If foods taste bitter or acidic, adding sugar or a different sweetener can help them taste better .
- Use condiments, herbs and other ingredients to make food taste better . You may find adding bacon bits or onion to your vegetables helps them taste better . Herbs and condiments, such as barbeque sauce, can also improve the taste of some foods .
- Serve foods at room temperature .
- Use a cup with a lid .
- Eat with plastic forks and spoons or chopsticks if food tastes metallic .
- Reduce food smells while you cook .
 - » Use a kitchen fan or exhaust fan while cooking .
 - » Cook outside .
 - » Keep food covered .
 - » Lift lids away from you while cooking .
 - » Ask someone else to cook for you .

Constipation

Constipation is having 3 or fewer bowel movements in a week. Generally, people should have bowel movements at least every 2 days. Pain medicines and decreased activity and appetite all can cause constipation.

With constipation, bowel movements can be dry, hard and painful to pass. Liquid bowel movements may be a sign of constipation, since the liquid can move around the hard bowel movement.

What to do

- Call your care team if you:
 - » Haven't had a bowel movement for 3 days.
 - » Develop a fever, severe stomach pain, cramps or vomiting.
- Treat constipation with a laxative. Follow the guidelines below to treat your constipation.
 - » Start with 1 to 2 tablets of over-the-counter senna at bedtime.
 - » If you don't have a bowel movement, start taking 2 tablets of senna 2 times a day.
 - » If you're still constipated after taking 2 tablets 2 times a day, add 1 capful of over-the-counter polyethylene glycol (MiraLAX) in the morning.
 - » If you're still constipated, take 4 tablets of senna 2 times a day and MiraLAX 2 times a day.
- Eat foods high in fiber, including fresh and dried fruits (such as apricots and prunes), vegetables, legumes (cooked dried beans and peas), nuts, popcorn and whole grains (such as bread, cereal and bran muffins).
- Drink 8 to 10 glasses (8 ounces each) of water or juice a day.
- Try to keep as active as possible. Aim for 20 to 30 minutes of physical activity a day. Walking will help keep bowel movements regular.

Diarrhea

Diarrhea is a common side effect of chemotherapy. Diarrhea is passing stool that's soft, watery or unformed.

Your intestine lining is made of fast-growing cells. Because chemotherapy targets fast-growing cells, chemotherapy can affect your intestine. Other possible causes of diarrhea are infections or a reaction to medicine.

What to do

- Call your care team if you have more than 3 unformed or liquid stools in 1 day.
- Talk to your care team about medicines that are safe to treat diarrhea.
- Drink at least 8 glasses (8 ounces each) of clear fluids every day. Try water, clear soup, sports drinks, ginger ale or ginger tea. Avoid alcohol and limit caffeine. Drink milk as you're able to tolerate.
- Eat 5 to 6 small meals instead of 3 large meals.
- Eat foods low in fiber, such as bananas, white rice, canned fruit and applesauce, white toast, cooked cereals, eggs, noodles or pasta, yogurt (without fruit) and crackers.
- Eat foods and drink liquids high in sodium, such as broth, and high in potassium, such as bananas, canned apricots and potatoes.
- Avoid fatty, spicy, greasy or fried foods, whole grains and raw fruits and vegetables.

Take care of your skin by using a soft cloth, baby wipe or spray bottle to clean yourself after diarrhea.

Fatigue

Fatigue is one of the most common side effects of chemotherapy. Fatigue is more than being tired. Fatigue is a feeling of exhaustion or lack of energy.

Rest may not help fully relieve fatigue. You may not be able to complete some of your regular routines. Fatigue affects everyone differently.

What to do

- Stay active. Do light physical activity, such as walking, or other activities that restore or increase your energy. Let your care team know if you're interested in rehabilitation therapy.
- Go to bed at night and get up in the morning at the same time every day. Sleep for at least 8 hours a night.
- Rest as needed during the day, but limit naps to less than 1 hour. Try to avoid sleeping later in the day so you're more likely to sleep through the night.
- Keep track of when you feel most fatigued. Prioritize and plan activities during the day for when you're feeling most energetic.
- Find ways to relax. Try yoga, meditation or prayer. See also Pages 61 to 63.
- Ask others for help with household tasks.

Hair loss

Hair loss can occur during certain types of chemotherapy. Not everyone who receives chemotherapy loses their hair.

Usually, hair loss due to chemotherapy is temporary. When you stop treatment, your hair will begin to grow back in 3 to 4 months.

Hair loss caused by chemotherapy usually happens 2 to 3 weeks after starting treatment. Hair can fall out in large clumps or uneven patches. How much hair you lose may vary from a small amount to a total loss of all body hair.

For anyone, losing hair can be one of the most upsetting side effects of chemotherapy. Talking to your care team can help you manage the emotional distress you and your loved ones may feel about hair loss.

What to do

- Choose a wig before starting chemotherapy. Finding a comfortable wig before losing any hair may help minimize some distress.
- Consider cutting your hair short before hair loss begins. Some people find this makes hair loss less upsetting.
- Do not color or dye your hair or get a permanent or any other hair treatments.
- Be gentle on your hair. Use baby shampoo and pat your hair dry or use a soft hairbrush.
- Do not use ponytail holders, hair spray, hair dryers, curling irons or any product that might hurt your scalp.
- Wear a scarf, hat or wig to protect your scalp and stay warm.
- Always use sunscreen on your scalp.

Paying for a wig

When choosing a wig, cost may be a factor. Check with your health insurance provider regarding your plan's benefits and coverage for wigs. Ask your doctor for a wig prescription if required by your insurance company.

For help finding a low-cost wig if your insurance provider doesn't cover the cost, talk to a member of your care team.

You can also contact these organizations:

- **Tender Loving Care**
(sells hair-loss products for women)
800-850-9445
tlcdirect.org
- **American Cancer Society**
800-227-2345
cancer.org

Infection

Your care team will talk to you about the times you're more at risk for infections during chemotherapy. The medicines can limit your body's ability to make white blood cells. White blood cells help fight infection.

Your care team monitors your white blood cell counts throughout your chemotherapy. You may not be able to avoid infections completely, but you can lower your risk of developing an infection. Practicing proper hand hygiene and other infection prevention safety is important.

What to do

- Check your temperature at least 1 time a day.
- Call your care team if your temperature is 100.5°F (38°C) or higher.
- Wash your hands often. Be sure to wash them at these times:
 - » Before you eat
 - » Before cooking food
 - » After using the toilet
 - » After petting animals
- Wash your hands correctly. Follow these steps:
 1. Use warm water to wet your hands.
 2. Wash hands with soap for 20 seconds, including in between your fingers, under your fingernails and on the back of your hands.
 3. Dry your hands with a clean towel.
 4. Use a paper towel to turn the water off and open the bathroom door.
- Avoid touching your eyes, nose and mouth.
- Carry sanitizing wipes to use as needed in public places.
- Avoid people who are sick, especially those who are coughing or sneezing.
- Be careful using knives, scissors or razors. If you cut yourself, clean the cut right away with warm water and soap.
- Do not clean up cat litter or other pet waste.
- Talk to your care team before traveling, especially to other countries.
- Pay careful attention to food safety.
 - » Do not eat raw or undercooked meat, fish, poultry and eggs.
 - » Wash fresh fruits and vegetables.
 - » Keep cold foods cold and hot foods hot.
 - » Refrigerate leftovers within 2 hours.
 - » Keep raw meat, fish, poultry and eggs away from other foods.
 - » For more information about food safety, see Page 69.
- Brush your teeth 2 times a day with a soft toothbrush.
- Do not use dental floss.
- Get a flu shot every autumn to reduce your risk for flu. Get all currently recommended doses of COVID-19 vaccine to reduce your risk for hospitalization or death from COVID-19. If you're unsure whether you're up to date with your COVID-19 vaccination, talk with your clinician. Also talk with your clinician about getting:
 - » A booster shot for whooping cough.
 - » A pneumococcal vaccination.

Mood changes

Many people have mood changes during chemotherapy. You may feel anxious, frustrated, lonely or afraid. You may feel angry or sad.

What to do

- Talk to anyone on your care team if you feel depressed or are experiencing anxiety.
- Find ways to relax and relieve stress. Try the relaxation exercises on Pages 61 to 63.
- Be physically active. See Pages 74 to 75 for ideas on physical activity.

Ask your care team for more ideas and materials.

Mouth and throat sores

Chemotherapy can cause sores in your mouth and throat. You can also have a dry mouth, infections and sensitivity to hot or cold foods and drinks.

What to do

- Keep mouth, teeth, gums and tongue clean.
 - » Brush after every meal.
 - » Use an extra-soft toothbrush.
 - » Use a water flosser or cotton swab if using a toothbrush is too painful.
 - » Do not use toothpicks or mouthwash that contains alcohol.
- Avoid eating foods and drinking liquids that make your mouth hurt more, such as crunchy, salty or spicy food, very hot or very cold food or drinks, citrus fruits or drinks (tomato, orange, lemon, lime and grapefruit), raw vegetables and alcohol.

- Do not use chewing tobacco or smoke other tobacco products.
- Keep your mouth moist.
 - » Suck on ice chips or hard candy.
 - » Chew sugar-free gum.
 - » Use lip balm.
- Make your food easier to eat by:
 - » Using a blender to purée cooked foods.
 - » Cutting food into small pieces.
 - » Moistening food with gravy.
- Choose moist foods that are easy to swallow, such as:
 - » Cooked cereals
 - » Mashed potatoes
 - » Scrambled eggs
 - » Creamy soups
 - » Milkshakes and ice cream
 - » Custard
 - » Yogurt
 - » Meal-replacement drinks

Mouth rinses

Your care team may suggest a mouth rinse to help with mouth sores . Rinse your mouth 5 to 6 times a day for 1 to 2 minutes .

Try the following recipes to find which works best for you .

- 1 teaspoon of salt in 4 cups of lukewarm water
- 1 teaspoon of baking soda in 1 cup of lukewarm water
- 1/4 teaspoon salt and 1/2 teaspoon baking soda in 1/2 cup of lukewarm water

Nail changes

During some chemotherapy treatments, your nails can darken, become discolored or crack . Sometimes, nails can separate from the nail bed (base of nail) and fall off . Usually, these nail changes are temporary . A couple of months after finishing chemotherapy, nails usually grow back .

What to do

- Talk to your care team if your nail beds hurt or are red .
- Wear gloves when you do the dishes, work in the yard or clean your home .
- Keep your nails trimmed and clean .

Nausea and vomiting

Nausea is feeling the urge to vomit . Nausea can lead to vomiting, or you may have dry heaves (repeated retching without vomit) .

What to do

- Call your care team right away if you vomit blood or if vomiting isn't relieved by anti-nausea medicine within 3 to 4 hours .
- Talk to your care team about medicine to help provide relief . Medicines that relieve or prevent nausea and vomiting are called *antiemetics* .
- Drink plenty of fluids, such as diluted juices, ginger ale, sports drinks, water, tea or clear soup or bouillon .
- Eat 5 to 6 small meals and snacks throughout the day .
- Do not skip meals or snacks .
- Sip only small amounts of liquids during meals .
- Eat foods that are easy on your stomach, such as white toast, vanilla yogurt and clear broth . Try lemon, lime or other tart-flavored foods and drinks .
- Eat dry toast or crackers before you get out of bed .
- Let your family know which food smells trigger nausea .
- Open a window or go outdoors for fresh air, which may help when feeling nauseated .
- Find ways to relax and distract yourself, such as listening to music, reading or watching TV . Practice taking slow, deep breaths .



Numbness and tingling

Numbness and tingling are signs chemotherapy has affected your nerves .

What to do

- Talk to your care team if you have any signs of damage to your nervous system, including:
 - » Constipation
 - » Feeling cold
 - » Weak or achy muscles
 - » Burning feeling in hands or feet
 - » Loss of balance
 - » Loss of feeling in your hands or feet, or difficulty picking items up or buttoning clothes .
- Protect your feet by wearing thick socks and rubber-soled shoes .
- Protect your hands from extreme cold and extreme heat .
 - » Make sure your bath or shower water isn't too hot .
 - » Wear gloves when washing dishes . Do not let the water get too hot .
 - » Use potholders while cooking .
- Wear waterproof gloves when working in the garden .
- Try massage to relieve pain .
- Rest as needed .

Pain

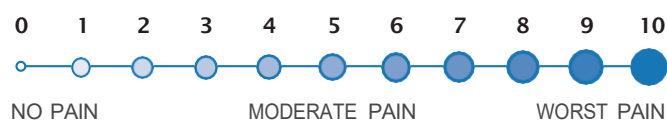
Pain is a sensation that alerts you to an injury or illness within your body . Pain can be sharp, shooting, stabbing, throbbing, burning, aching, pulling or cramping .

What to do

Be as specific as possible in describing your pain. Rating pain is different for everyone .

Use these guidelines to describe your pain .

- **Pain rating** . Rate how your pain feels using the following scale of 0 to 10, where 0 means no pain and 10 means worst pain possible .



- » **Onset of pain.** Tell when and how your pain began .
- » **Location.** Point to or explain where your pain starts and where it goes .
- » **Quality.** Describe if your pain is sharp, shooting, stabbing, throbbing, burning, aching, pulling or cramping .
- » **Intensity.** Explain if your pain is constant, or if it increases or decreases, what makes it worse .
- » **Response to treatment.** Describe if anything helps relieve your pain . If yes, how much and for how long?
- **Think about what pain rating will let you return to regular activities.** Everyone is different . When you're feeling more comfortable, you can return to regular activities sooner and be more active .
- **If your doctor prescribes opioid pain medicine,** see Page 30 for more information .

Ideas to increase your comfort

Try some of the following ideas to help increase your comfort level. What methods have or haven't worked for you?

- **Massage.** Massage helps relieve tension in tired, achy parts of the body by using gentle and firm touch. A massage therapist can massage a specific area, or you can learn to do massage yourself.
- **Positioning.** Adjusting your body to different positions may relieve some pressure or pain.
- **Heat and cold therapy.** Hot packs, heating pads and warm baths reduce inflammation and boost relaxation. Cold therapy often works better than heat in managing pain. Cold therapy can help relieve an itch or decrease muscle spasms. Alternating between heat and cold therapy can be more effective than using either technique alone and may be used for severe pain.
Note: If your treatment includes radiation therapy, do **not** use heat or cold therapy on the area of your body that's receiving radiation.
- **Music.** Research studies show that music can be effective in reducing pain perception.
- **Relaxation.** Prayer, yoga, guided imagery, relaxation exercises and meditation help relieve anxiety and muscle tension. They produce relaxation, which lowers the body's stress response.

Sexual changes

Sex can be a difficult issue to discuss because it's such a private matter. You may feel uncomfortable or embarrassed to talk about sexual issues, but your care team can help. Sex is an important part of a person's life and recovery.

Discuss fears or concerns with your partner. Open communication can help both of you feel more comfortable. If you or your partner has concerns about sexual activity, pregnancy or birth control, talk to your care team.

Chemotherapy can affect sexuality in different ways. People experience different side effects.

People with a penis may:

- Have less energy or sexual desire.
- Have difficulty getting or maintaining an erection.
- Be unable to ejaculate.
- Feel differently about their bodies.

People with a vagina may:

- Have less energy or sexual desire.
- Experience discomfort and pain with sexual activity.
- Have vaginal dryness.
- Be unable to have an orgasm.
- Have symptoms of premature menopause, such as hot flashes and irregular menstrual cycles.
- Feel differently about their bodies.



What to do

People can manage sexual changes by focusing on the senses—relax and enjoy touching each other.

Also, explore new ways to be close. For example, if you've had surgery, invite your partner to look at your surgical scar with you. This can help enhance connecting with one another and sharing in the healing process.

Other ideas are to find ways to reduce stress and be physically active. (See Pages 74 to 75 for ideas on how to stay active.)

Most chemotherapy agents leave the body in the first 48 hours after treatment. To avoid exposing your partner to chemotherapy byproducts in semen or vaginal secretions, use condoms and don't engage in oral sex. Discuss specific time periods with your oncologist.

People with a penis can manage sexual changes by:

- Talking to their doctor about medicines that help with sexual problems.

People with a vagina can manage sexual changes by:

- Using a water-soluble lubricant before sexual intercourse if vaginal dryness is a problem.
- Wearing cotton underwear.
- Not wearing tight pants or shorts.
- Dressing in layers and removing layers as needed for hot flashes.

Thinking about pregnancy and infertility

If you're pregnant or become pregnant during treatment, inform your doctor right away. Before your cancer treatment begins, ask your doctor about how the treatment may affect your possibility of having children in the future. Chemotherapy, radiation and surgery all can affect a person's fertility.

Skin changes

The cells in your skin and nails are fast-growing cells, which chemotherapy can damage. Most of these skin changes stop after chemotherapy. Minor skin changes, such as dry skin and rashes, can occur with chemotherapy. Dry skin can look red or feel itchy, rough or tight.

During chemotherapy, your skin can be very sensitive to the sun. You can manage sun sensitivity by preventing sunburn.

If your treatment also includes radiation therapy, another skin problem that can occur with chemotherapy is called *radiation recall*. Redness at the location of earlier radiation treatment appears with chemotherapy. Radiation recall looks like a bad sunburn. Let your care team know if you think you have radiation recall.

What to do

- Call your care team if you develop:
 - » Blistering or peeling skin .
 - » Severe rashes or hives .
- Use a moisturizer, cream or lotion on your skin after you bathe and while still slightly wet . Moisturizers work best with slightly wet skin .
- Use perfume-free, mild moisturizing soap when you bathe .
- Take a short, lukewarm shower or bath instead of a hot, long bath . You can also give yourself a sponge bath .
- Do not rub yourself with a towel . Pat yourself dry after you bathe .
- Use allergen-free laundry detergent .
- Avoid putting alcohol-based products on your skin .
- Wear loose cotton clothes to avoid rubbing on your skin .
- Always use a water-resistant, broad-spectrum sunscreen (SPF 30 or higher) .
- If you have radiation recall, use sunscreen with at least SPF 30 or protective clothing in the area of your radiation treatment .
- Use lip balm with at least SPF 15 .
- Limit exposure to direct sunlight, especially between 10 a.m . and 4 p.m ., when the sun is strongest .
- Do not use tanning beds .

Sleep problems

Sleeping problems, or insomnia, happen when you can't fall asleep or stay asleep . People have insomnia for different reasons, such as medicines or napping during the day because of fatigue, and then having a hard time sleeping at night . Other times, anxiety or stress can keep people awake .

What to do

- Talk to your care team if you're feeling depressed or anxious .
- Try the relaxation exercises on Pages 62 to 63 help you relax before bed .
- Practice good sleep habits, such as:
 - » Go to bed at the same time every night . Get up at the same time each morning .
 - » Make your bed a place for sleeping only . Try not to watch TV or read in bed if you have insomnia .
 - » Make your bedroom dark, quiet and a comfortable temperature .
- Avoid caffeine late in the day .
- Try physical activity . See Pages 74 to 75 for ideas on staying physically active during your treatment .



Self-Care Activities

Practice mindfulness

Mindfulness can help quiet your mind and relax your body. Studies show that it can help some people sleep better, feel less anxious and bring their blood pressure down. And it has been shown to help some people live and cope better with certain health problems, such as cancer, heart disease, depression or chronic pain.

What does it mean to be mindful?

When you're mindful, you pay attention to and accept the thoughts and experiences you're having right now—in the present moment. Some people call it a time for quiet reflection, prayer or meditation. Whatever name you use is fine, because this is your experience—no one else's.

To be mindful is to pay attention, to be present and to be accepting.

When you're mindful, you do just one thing and you pay close attention to that one thing.

For example, you may sit quietly and notice your emotions or how your food tastes and smells.

When you're present, you focus on the things that are happening right now.

You let go of your thoughts about the past and the future.

And to be accepting means not to judge the present moment, but to just accept your thoughts and feelings as they come—without getting caught up in them.

When you accept all moments (the good, the bad and the scary ones) they become just that: moments.

We live in a world full of demands and changes, but it's possible to find a sense of calmness and peace in the midst of it all.

Mindfulness: It may be just the thing you never knew you needed.

Relaxation exercises

Practice these exercises to relax before, during and after your treatment. Research studies show that using slower-tempo, relaxing music helps lower blood pressure, relax your muscles, and slow and deepen your breathing.

Breathing for comfort

1. Lie or sit in as comfortable a position as possible.
2. Breathe in and out, slowly and deeply. Concentrate on making each breath even. For example, if you inhale for a count of 5, let yourself exhale for a count of 5.
3. Feel your body relax.
4. If you're having pain or discomfort, imagine the discomfort leaving your body as you exhale.
5. Continue breathing deeply, slowly and evenly.
6. You may find it helpful to imagine yourself in a calm, peaceful setting, such as a beach or another comfortable and special relaxing place.
7. Continue this slow, deep breathing for up to 20 minutes, letting the pain go as you exhale.
8. When you're ready, let yourself become more alert and aware of your surroundings.
9. End the exercise with a slow, deep breath. Say to yourself, "I am comfortable and calm." Enjoy the feeling and remember that you can return to this relaxed state whenever you need it.

Relaxing from toes to head

1. Lie or sit in a reclining chair in as comfortable a position as possible and close your eyes. Take several deep breaths. Keep breathing deeply and evenly.
2. Focus on relaxing each part of your body, starting with your toes. Choose 2 of the following qualities that you need now: *relaxed, balanced, comfortable, calm, safe, warm, cool, peaceful, healing, healthy, light* or *energy*. Create a relaxation statement using these 2 words, such as, "My body is relaxed and comfortable" or "My body is calm and healthy." Repeat this statement to yourself. As you repeat each statement, take your time to go through each body part that you want to relax completely (feet, back, chest and shoulders, neck and head). You may want to repeat each statement 2 to 3 times.
3. Open your eyes and then slowly move your hands, arms, legs and feet. Gently turn your head from side to side. If it feels good, stretch your arms and legs. Prepare to go on with the rest of your day with a renewed sense of comfort and peace.

Guided imagery

Guided imagery exercise: Peaceful place

Another effective relaxation technique is to imagine yourself in a comfortable and relaxing place. This could be a place that you've been before, or it could be a beautiful place that you create in your imagination. Your place may be found outside in nature, or a cozy and comfortable place inside where you can relax fully.

Some examples are:

- Sitting by a lake or ocean .
- Lying on a beach in the warm sunshine .
- Going for a walk in the woods .
- Being at your favorite vacation spot .
- Sitting by a fireplace or in your favorite chair .
- Being present in a place of worship or beauty .

Once you decide on a place that might feel relaxing for you today, try these steps to let yourself relax and fully settle in to this place:

- Put on some soft, relaxing music . Some people like to listen to music with nature sounds that fit the place they've selected .
 - Either close your eyes, or keep them open and look at a picture of a place that's similar to the one you've selected .
 - Take some deep breaths, and allow yourself to begin to relax as you imagine yourself in this place .
 - Take time to go through all of the senses to let yourself settle fully in to this place .
 - » Imagine looking around you in this place . What sights, colors, landscape objects do you notice?
 - » Take a moment to listen to the sounds of this place . Do you hear the breeze, birds, waves, a crackling fire, laughter or some beautiful music?
 - Perhaps this place may have qualities to help you focus on healing or hope: Is it a place that brings you energy or much needed comfort? Is there a quality in this place that can help you get through the rest of your day?
 - When you're ready, very slowly, take a few more deep breaths, then bring this guided imagery experience to a close . Wiggle your fingers and stretch your arms and legs as you feel your attention returning to the room . Know that you can return to this place in your imagination any time you need a sense of peacefulness, relaxation, healing or hope .
- » Take some more deep breaths . Can you smell the fresh air, flowers, woods or other scents of this place?
 - » Notice if there are tastes associated with this place: a refreshing drink of water or lemonade, a favorite food .
 - » Allow your body to relax and notice any sensations . Can you feel the warmth of the sun on your skin, or a gentle breeze blowing across your face? Feel your whole body becoming even more relaxed in this place . You may want to go through a body relaxation as you imagine yourself in this place . See Page 62 .
 - » Notice how it feels to be in this place . You may experience some of these feelings: relaxed, comfortable, peaceful, gratitude, connection or contentment .

Wellness

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Nutrition

This section describes how cancer, diet and physical activity are related. It also explains what a healthy diet is and how to evaluate nutrition information.

During different parts of your treatment, you may change what you eat, which is appropriate. Diet guidelines during and after treatment depend on many factors.

No single food, nutrient or diet has been proven to prevent or cure cancer or keep the cancer from coming back. However, certain diet and exercise guidelines will help support your health.

Eating a well-balanced diet to maintain a healthy weight is important before, during and after your cancer treatment. A healthy diet combined with other guidelines for caring for yourself can help with your overall sense of well-being.

Diet and cancer

Eating more plant foods may provide health benefits. These foods contain nutrients as well as plant chemicals called *phytochemicals*. Foods high in these nutrients and plant chemicals can support healthy cells.

Examples of plant foods that may provide health benefits include vegetables with phytochemicals, such as broccoli, cauliflower, cabbage, Brussels sprouts, onions and garlic. Brightly colored vegetables, such as carrots, squash, tomatoes, spinach, peppers and beets, also may provide health benefits.

Other foods in a healthy diet include:

- Beans, lentils and other legumes
- Whole grains, such as barley, wild rice, brown rice, buckwheat, bulgur (cracked wheat) and millet, oatmeal and whole-wheat breads, pastas and crackers

Fruits, such as citrus fruits and berries, are also recommended. The nutrient content and phytochemical content of different fruits and vegetables vary by color.

Diet and lifestyle guidelines

The following lifestyle guidelines will help support good health .

Drink fluids

Keeping your body from losing more water than you're taking in is important. Without water, your body can become dehydrated and unable to work normally .

Drink at least 64 ounces of noncaffeinated fluids daily. Some symptoms of dehydration include:

- Increased thirst
- Headache and dizziness
- Cramping in legs and arms and weak muscles
- Dry mouth
- Constipation and dark yellow urine

Maintain a healthy weight

People with cancer may gain or lose body weight during treatment depending on the type of treatment. Weight gain or weight loss can also happen during recovery .

If you're losing weight during treatment and can't meet your nutritional needs through regular food, you may try a liquid nutritional supplement .

If you're gaining weight, follow a healthy eating plan that meets but doesn't exceed your caloric needs .

The following guidelines help figure out a healthy weight based on body mass index (BMI) . Ask your clinician for your BMI . Aim for a BMI between 20 and 24.9 . If your BMI is 25 or greater, consider losing weight .

Body mass index	Category
Less than 18.5	Underweight
18.5 to 24.9	Healthy weight
25 to 29.9	Overweight
30.0 to 39.9	Obese
40 or greater	Extreme obesity

Eat a plant-based diet

Eat 5 or more servings of vegetables and 2 to 3 servings of fruits daily. A serving of these foods is equal to 1/2 cup (cooked, chopped or canned) or 1 cup raw. Also be sure to eat several servings of whole grains or beans.

Eat healthy fats, such as olive or canola oil. Limit saturated fats found in high-fat meats, butter and whole milk.

Include at least 4 to 6 ounces of protein every meal from lean beef, pork, poultry, fish, eggs, beans, tofu and low-fat dairy products. Keep meats and fish from charring when you cook them. Avoid processed meats, such as hot dogs, salami, pepperoni, bologna, bacon and luncheon meats. Also limit frozen products, such as breakfast meats, chicken patties or chicken nuggets.

Avoid alcohol

Drinking alcohol increases the risk of several types of cancer. Don't drink alcohol during treatment.

After treatment, the American Institute for Cancer Research and the World Cancer Research Fund International recommend avoiding all types of alcoholic beverages for cancer prevention. Even in small amounts, alcohol can increase your risk for some cancers. No amount of alcohol of any type is low enough to avoid an increased risk for cancer.

Handle food safely

Food safety is important when your immune system is weakened. Follow these tips to help maintain food safety.

- Wash your hands before eating.
- Wash fruits and vegetables well.
- Wash all utensils and countertops that come in contact with raw meat.
- Cook meat, poultry and seafood well.
- Use a meat thermometer to ensure cooking to proper temperatures.

Food type	Cook to
Beef and pork chops, steaks, roasts	145°F (63°C)
Ground beef, pork	160°F (71°C)
Egg dishes	160°F (71°C)
Fish	145°F (63°C)
Poultry	165°F (74°C)

- Drink only pasteurized milk and juices.
- Store foods at temperatures below 40°F (4.4°C) to minimize growth of bacteria.
- Thaw food in the refrigerator, not on the kitchen counter.
- Avoid salad bars, shellfish, sushi and raw or undercooked meat, poultry and eggs. These foods might cause illness or unwanted reactions when you're undergoing treatment.

For more information, visit www.fsis.usda.gov/sites/default/files/media_file/2021-04/at-risk-booklet.pdf to view the Department of Agriculture's book, *Food Safety: A Need-to-Know Guide for Those at Risk*.

Exercise regularly

Aim to do at least 30 minutes of physical activity at least 5 days each week. Regular activity can help you:

- Maintain muscle volume and healthy weight.
- Reduce anxiety and depression.
- Improve mood and self-esteem.
- Reduce symptoms of fatigue, nausea, pain, constipation and diarrhea.

Learn more about how to stay physically active on Pages 74 to 75.

Nutritional therapies

Many nutritional therapies claim to cure cancer. Unfortunately, conflicting study results make informed decisions difficult.

To figure out if you could safely use any particular therapy, talk to your care team. Some of the most widely known nutritional therapies consist of dietary supplements, including antioxidant supplements and phytochemical supplements. Others involve following specific diets or eating patterns. A registered dietitian nutritionist (RDN) is specially trained in assessing what eating patterns are most appropriate for you based on your type of cancer and treatment. RDNs use evidence-based information backed by scientific research to help guide you to the most effective and safe nutrition recommendations.

Our dietitians are here to answer your questions on dietary patterns, such as:

- Plant-based eating.
- Anti-inflammatory eating.
- Mediterranean diet.

- Vegetarian or vegan diet.
- Gluten-free diet.
- Various cancer-specific diets.

Dietary supplements

Some people believe taking high doses of vitamin, mineral or herbal supplements will destroy cancer cells. However, no evidence exists that any nutritional supplements, even in high doses, can provide the same benefits as a well-balanced, healthy diet.

In fact, some vitamins and herbal compounds are harmful at high levels and may increase cancer in some people. Use only moderate doses, if at all, of supplements. A multivitamin and mineral supplement that doesn't exceed the recommended Daily Value (DV) may be helpful if you can't eat enough to obtain these nutrients.

Antioxidant supplements

People disagree about using antioxidant supplements during treatment. These supplements have special chemicals some people believe can prevent cancer. More research is needed to see whether these supplements are safe to use during treatment.

Phytochemical supplements

Taking a phytochemical supplement isn't recommended. Eating foods that contain phytochemicals is part of a healthy diet. Scientists have identified hundreds of phytochemicals in foods. Each phytochemical may have a unique role in protecting the body against cancer. However, experts believe various phytochemicals and other food components act together to reduce cancer risk.

Nutrition claims

New claims about nutritional treatments and cures for cancer are everywhere . Learning to evaluate this type of information is important . Keep these points in mind:

- Understand that “natural” doesn’t necessarily mean safe . Even natural substances can be harmful at high levels .
 - » Natural substances may also negatively affect some medicines or other treatments you may be taking .
- Be aware that the federal government doesn’t test dietary supplements for safety or approve them for sale .
- Evaluate nutrition information only from trusted medical or health-related sources . Have a qualified health professional review any treatment you choose to follow .
- Watch out for scams about nutrition treatments . Some people claim the medical community is trying to keep their cure from the public . No one committed to finding better ways to treat a disease, however, would knowingly keep people from using an effective treatment .
- Be cautious about people who claim their treatment has a “secret formula” or is a “quick fix,” “miracle cure” or “breakthrough .” Scientists who believe they have developed an effective treatment publish their results in respected medical journals .

Remember, if the claim sounds too good to be true, it probably is .

For more information, visit

www.oncologynutrition.org/on/erfc/healthy-nutrition-now/foods/

Exposure to chemicals in food

Many people are concerned about their exposure to environmental chemicals, both in our food and in food containers . Scientists don’t know whether these chemicals are bad for our health . But many scientists recommend taking a preventive approach and limiting your exposure, when possible .

To limit your exposure to food pesticides, try organic products when buying the following:

- Apples
- Celery
- Cherry tomatoes
- Collard greens
- Cucumbers
- Grapes
- Hot peppers
- Kale
- Nectarines
- Peaches
- Potatoes
- Snap peas
- Spinach
- Strawberries
- Sweet bell peppers

Bisphenol A (BPA) and phthalates are common chemicals used in plastic bottles, storage containers, food wrap and food cans . Scientists don’t know whether these chemicals affect health .

Try the following ideas if you choose to limit your exposure to the chemicals found in plastics:

- Prepare food from scratch whenever possible.
- Choose minimally processed foods.
- Store foods in nonplastic containers, such as glass.
- Avoid heating foods in plastic containers or dishes. Use a glass or porcelain dish to heat food.
- Don't microwave or heat plastic food wrap.
- Don't place plastics in the dishwasher.
- Avoid plastics with the recycling codes 3 (contains phthalates), 6 and 7 (contains BPA).
- Avoid canned foods when possible. BPA may be used in can linings.
- Look for labels on products that say "phthalate-free" or "BPA-free."
- Don't leave plastic water bottles in warm places, such as your car on a hot day.

Websites

- **American Cancer Society**
cancer.org/treatment/survivorship-during-and-after-treatment/coping/nutrition.html
Information about nutrition during and after cancer treatment.
- **American Society of Clinical Oncology**
cancer.net/navigating-cancer-care/prevention-and-healthy-living/diet-and-nutrition
Information on diet and cancer.
- **American Institute for Cancer Research**
aicr.org
Information about cancer research and ways to reduce your cancer risk.
- **Nutrition in Cancer Care, National Cancer Institute**
cancer.gov/about-cancer/treatment/side-effects/appetite-loss/nutrition-pdq
Overview of nutrition in cancer care, including effects of cancer treatment on nutrition and types of nutrition support.
- **Office of Cancer Complementary and Alternative Medicine, National Cancer Institute**
cam.cancer.gov
Research on complementary and alternative medicine, including health information and links to clinical trials.
- **Office of Dietary Supplements, National Institutes of Health**
ods.od.nih.gov
Dietary-supplement fact sheets for vitamins, minerals and other dietary supplements.

- **National Institutes of Health**
nih.gov
 - » Links to reliable medical information, including prevention, diagnosis and treatment of a wide variety of conditions.
 - » Health and wellness resources.
 - » Toll-free telephone health information lines listed by health condition.
- **Oncology Nutrition Dietetic Practice Group**
oncologynutrition .org
Links to nutrition information related to cancer, symptom management and recipe ideas.
- **World Cancer Research Fund and American Institute for Cancer Research**
wcrf.org/diet-and-cancer
Information about the Continuous Update Project (CUP), the world's largest, most authoritative and up-to-date source of scientific research on cancer prevention and survivorship through diet, nutrition, physical activity and cancer.

Staying Physically Active

Many research studies suggest staying physically active during cancer treatment can have a positive impact on one or more of the following:

- Cancer outcomes
- Overall fitness
- Muscle strength
- Flexibility
- Quality of life
- Fatigue
- Mental outlook

Exercising safely

Talk to your care team before you start any physical activity. Also, when you're staying in the hospital, ask your care team about safe options for staying active while in the hospital.

Signs of doing too much exercise

Pay close attention to your body's signals as you exercise. Your body will warn you if you're doing too much, which is called *overexertion*. Signs and symptoms of overexertion are your body's way of letting you know you're doing more than your body can tolerate.

If you experience any of the following signs or symptoms of overexertion during physical activity, **slow down to a stop and talk to your care team as soon as possible:**

- Lightheaded or dizzy
- Nausea or vomiting
- Shortness of breath and difficulty breathing
- Cold, clammy sweat
- Unexplained anxiety, weakness or fatigue
- Pain or discomfort, pressure, aching, burning, squeezing, tightness, heaviness or fullness in your chest, neck, upper back or arms
- Change in heart rhythm—rapid or irregular heart rate (palpitations)

Call 911 if you experience life-threatening symptoms.

If you feel too weak for your daily tasks or you want to work with a physical therapist to start an exercise program, talk to your care team about a referral to cancer rehabilitation services. See Pages 9 to 10 for more information.

Types of physical activity

All types of physical activity are beneficial . Since people respond differently to cancer treatments, choose physical activities to fit your situation .

Types of physical activity that may work for you are:

- **Endurance activities** . Steady, rhythmic and continuous activities . Examples include:
 - » Walking
 - » Swimming
 - » Biking
 - » Hiking
 - » Dancing
- **Strengthening activities** . Resistive activities for targeted muscles . Examples include:
 - » Weightlifting
 - » Resistance bands
- **Stretching activities** . Gentle, passive stretching of muscles . Examples include:
 - » Yoga
 - » Tai chi

“When I woke up in the morning, I went walking. I walked for 10 minutes and then built up to longer walks. That little bit was sometimes all I could manage, but I knew I had to walk.”

— Karen, a cancer survivor

Starting an endurance activity program

If you’re not physically active, begin with low-intensity exercise, such as walking slowly or riding a stationary bike with low resistance .

Gradually increase activity over time . Below is an example for slowly increasing your activity time . Walk for the time shown in the table, or try another endurance activity .

Level	How many minutes to walk	How many times a day
1	3 to 5	4
2	7	3
3	10	2
4	15	2
5	20	1
6	25	1
7	30	1

When your effort feels lighter, move to the next level . Staying at the same level for multiple days before moving to the next level is normal . Work your way through all these levels, but listen to your body and advance your duration (how long you walk) as you’re able . If you’re in treatment, you may need to move down a level based on how you feel .

With endurance activities, increase your duration before intensity . After you can do 30 minutes of continuous activity, then start to increase your intensity, such as a higher speed, steeper grade or more resistance .

Survivorship

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What's Survivorship?

More and more people are surviving cancer—living with, through and beyond cancer.

Survivorship has 3 stages:

- 1. Diagnosis and treatment.** The 1st stage of survivorship refers to living with cancer. This stage includes receiving your diagnosis and treatment for cancer.
- 2. Right after treatment.** As soon as your treatment ends, you begin living through cancer, the 2nd stage of survivorship. You still see your doctors from your diagnosis and treatment stage, but you transition into seeing them for follow-up care instead of regular treatments.
- 3. Long-term survivorship.** Living beyond cancer is long-term survivorship and usually is measured in years. During this stage, you probably will return to seeing your primary care clinician and will have a long-term plan for your health.

We think of a survivor as anyone who's diagnosed and living with cancer, from the time of diagnosis, through treatment and after treatment.

Some people think *survivor* is used only if cancer is cured. They may not like to use the term. Your survivorship journey is unique to you. You and your family will move through the journey in your own way.

Survivorship issues for all 3 stages include health care concerns, as well as emotional, spiritual, physical and nutritional issues.

Cancer survivors may find hope and support in sometimes unexpected areas—a stronger appreciation and recognition of your loved ones and your life priorities.

We're here to support you in staying as healthy and as active as possible. Please ask any questions and talk to us about your concerns. Let us know how we can help you, as a cancer survivor, live life to the fullest.

Emotional Experience after Treatment

When treatment ends, many people experience the most challenging emotional ups and downs. People often need more support than they thought after their treatment ends. You may also have some unanticipated physical side effects and practical concerns.

Completing treatment and having less contact with your care team can also be a source of anxiety. You may find you miss the familiarity of frequently visiting the clinic for treatments. Getting back to your previous responsibilities, while at the same time living with uncertainty and worrying about your health, can be a challenge.

For many people, this change leads to 2 to 3 months of emotional ups and downs. Few people expect this phase.

Family and friends may be celebrating the end of your treatment and often don't understand the emotional issues with survivorship. They think survivors should feel happy.

Delayed reactions

Once treatment is completed, you may realize you've been putting all of your energy into getting through it. You may now find yourself focusing that energy on recovering emotionally from your cancer.

Feeling a rush of unexpected emotions when your treatment ends is normal. You may feel angry, tense or sad. You also may be trying to find the meaning of this experience in your life and feel excited about the future.

For most people, feelings of anger or sadness go away or get better over time. For up to 1 in 4 people, though, these emotions can become severe. If you find feelings of sadness worsening, talk to your doctor. If your doctor finds you suffer from anxiety or depression, your doctor may treat you or refer you to other experts.



Managing uncertainty

Worrying about cancer coming back is one of the most common fears people have after completing treatment. You may feel even more anxious as the dates of regular follow-up appointments and tests get closer.

Fear is normal, especially during the first year after treatment. Fear that overwhelms you and causes you to feel immobilized or paralyzed isn't normal. Talk about these feelings with your doctor to develop a plan of care.

As time passes, many survivors report their fear of cancer coming back decreases. They find themselves thinking about their cancer less often.

Try to determine what triggers your anxiety. Talking with friends, support groups and counselors can be helpful in identifying what makes you anxious.

Medicines

After cancer treatment, you may need to use medicines for sleep, anxiety or depression.

Also, people with an episode of major depression at any time before cancer treatment are very likely to have another episode now. We recommend seeing the psychiatrist you worked with before your cancer diagnosis to review your medicines.

When treatment ends

- Be gentle with yourself.
- You're enough.
- Feel whatever you feel. No feelings "should" or "shouldn't" be felt.
- Others may have expectations about how you "should" be feeling. Stick with what's true for you and find the support you need.
- What you're scared of may not be true.
- Fear may go away when it's named. Fear may grow if it's hidden or not talked about.
- Give yourself time to heal, recover and respond. You've been through a lot.
- Recovery has more than one right path.
- Don't judge yourself or your reactions. If you're worried you're depressed or having anxiety, talk to your doctor. Ask for help if you're not sure.

A balanced approach

Survivors often feel the need to understand what having cancer means to their life now. You may reflect on spirituality, the purpose of life or what you value most.

Finding ways to relax, being active and managing what you can often help survivors ease anxiety and uncertainty. The following suggestions might help you cope with emotional distress:

- Be aware of your feelings and find ways to express unpleasant or difficult feelings in a healthy way.
- Accept your feelings and be willing to work through your emotions.
- Get support from others who are willing to listen to and accept you without trying to “fix” you.
- Express a wide range of both positive and negative emotions. Survivors who do this usually adjust well.
- Write down your thoughts and feelings. Keeping a journal can provide a safe outlet for your emotions and help you sort through your thoughts and feelings.



Understanding the Long-Term Side Effects of Cancer Treatment

Most side effects from cancer treatment go away when treatment ends. However, some treatment may result in long-term side effects, such as infertility, organ or nerve damage, or development of a different type of cancer. You may or may not have these side effects.

Talk to your care team to understand what long-term side effects you're at risk for and develop a plan to watch for symptoms. Some long-term side effects are more common after chemotherapy or radiation therapy.

Fatigue

Cancer treatment can cause fatigue after treatment ends. Some people have fatigue for months after chemotherapy.

Some ideas on dealing with fatigue include staying physically active, eating healthy and resting when you need to.

Brain changes

Radiation therapy to the brain may result in fatigue, slowed thinking and loss of short-term memory. These problems often are more noticeable after whole-brain radiation than after targeted radiation.

Getting enough sleep, pacing activities, and taking a rest or short nap in the afternoon can help. Also, do one activity at a time rather than

multitasking. Avoid loud or overstimulating environments.

If these problems continue for more than 1 month after radiation is over, let your care team know. Further evaluation and treatment can help, such as medicine or cognitive rehabilitation (relearning cognitive skills).

Thinking problems

Thinking problems, or “chemo brain,” affects many people after chemotherapy ends. Chemo brain may affect your thinking, including attention span and memory.

Fortunately, chemo brain is usually a mild condition, improves with time and doesn't lead to dementia. Writing notes and to-do lists can help keep you organized.

Research shows chemo brain usually lasts only a few months to a few years at most. If your thinking problems get worse over time, chemo brain isn't the cause. Let your care team know. You may need help for other causes of thinking problems, such as depression.

Organ damage

Chemotherapy can cause permanent damage to organs and organ systems, such as your heart or lungs .

If the organ damage is diagnosed during treatment, your care team can change medicines . But organ damage may not be diagnosed until after chemotherapy .

Your care team will discuss follow-up care and any further screening tests to have .

Nerve damage

Long-term as well as short-term nerve damage (see "Numbness and tingling" Page 57) can result from chemotherapy . Long-term side effects include hearing loss, ringing in your ears, memory loss and neuropathy .

Your care team will discuss follow-up care and any further screening tests to have .

Infertility

Depending on the type of cancer you have and where the cancer is located, chemotherapy and radiation therapy may cause infertility .

In people with ovaries, cancer treatment can affect the ability to become pregnant or menstruate . Cancer treatment can damage ovaries and start early menopause, which leads to infertility .

In people with testes, cancer treatment can damage sperm cells, which can lead to infertility .

Before starting treatment, talk to your doctor about how treatment may affect fertility and having children . If you want to start a family or plan on having more children, you have several options to consider:

- Adoption
- Donor sperm, embryos or eggs
- Surrogacy
- Sperm banking—Sperm can be banked before beginning cancer treatment . For more information, contact:
 - » **Fairfax Cryobank**
800-338-8407
fairfaxcryobank .com
- Ovarian tissue banking or egg and embryo banking—Tissue can be banked before beginning cancer treatment . The banking process takes 4 to 6 weeks to complete .
 - » **Reproductive Medicine and Infertility Associates**
651-222-6050
rmia .com
- In vitro fertilization and embryo transfer—This option involves retrieving an egg (ovum) from the woman, incubating it with sperm for 5 to 26 hours to develop into an embryo, and then transferring the embryo to the uterus for possible implantation . The in vitro process needs to take place before beginning cancer treatment .
- The following resource provides additional information about cancer treatment and fertility:
 - » **The Oncofertility Consortium—SaveMyFertility**
savemyfertility .org

Lymphedema (swelling)

Lymphedema, or swelling, occurs when a clear fluid known as lymphatic fluid builds up in the soft tissues of your body, usually an arm or leg. Your lymphatic system is an important part of your immune and circulatory systems. The lymphatic system consists of lymph vessels and lymph nodes. The system produces, stores and carries the white blood cells that fight infection and other diseases. The lymph vessels carry lymphatic fluid to your lymph nodes.

Symptoms of lymphedema

The symptoms of swelling in a portion or all of your arm or leg can range from barely noticeable to extreme. You may also experience a heavy, tight feeling in your arms or legs. Clothing or jewelry that normally fits may feel a little tight. Lots of swelling may make using your arm or leg difficult. Lymphedema can occur anytime from shortly after cancer treatment to many years later. Pain typically isn't an indicator of early lymphedema.

Lymphedema Treatment Program

Our Lymphedema Treatment Program offers multiple options for managing lymphedema. Your personalized care plan may include various treatments, including education, manual lymph drainage (MLD), bandaging, taping, exercise and compression garments. Medicine can't cure lymphedema.

Our lymphedema therapists in Rehabilitation Services will work with you to evaluate your lymphedema and develop a plan of care that fits your individual lifestyle. Your therapist will ask about when your symptoms started, what symptoms you're experiencing and what activities are affected.

Some ways to manage swelling are:

- **Education.** Education about lymphedema includes learning about the lymphatic system, signs of infection to recognize and techniques for doing MLD yourself. You also will learn how to modify activities to help decrease your lymphedema. You're at a higher risk for infection in the arm or leg with lymphedema, and will learn proper techniques to take care of your skin.

- **Manual lymph drainage (MLD)**. This special massage technique may help move the lymphatic fluid to decrease swelling. Because you have cancer—or if you also have a blood clot, heart failure or a skin infection—your lymphedema therapist may not recommend this option.
- **Kinesio Taping**. Kinesio Tape is a special type of tape that stretches with your arm or leg as you move. This tape helps decrease swelling by increasing the flow of lymphatic fluid in underlying muscles and vessels.
- **Compression bandaging**. Compression bandaging, which uses bandages with low stretch, helps move fluid out of the affected area. Bandages are worn in preparation for being fitted for a compression garment.
- **Compression garments**. Compression garments have long sleeves or stockings that apply pressure to your arm or leg. The compression prevents lymphatic fluid from building up. Some people may need a custom-made compression garment to ensure a proper fit. Your therapist will teach you how to take care of the garment and recommend a wearing time.
- **Exercise**. Exercises that involve gently moving your arm or leg help remove lymphatic fluids from the affected area. The exercise program also includes flexibility, strengthening and aerobic activities.
- **Skin care**. Keeping your affected arm or leg clean and watching for cuts and scrapes are important to prevent infection that could worsen your lymphedema.

Health and Wellness after Treatment

Practicing healthy lifestyle habits will help you feel better every day and is an important step on the road to recovery. Also, healthy habits are important for cancer survivors to help reduce the risk of other health problems.

- Do not use tobacco or nicotine.
- Exercise and be active for at least 150 minutes every week.
- Your oncologist may refer you to cancer rehabilitation services, which includes physical therapy and occupational therapy. See Page 9.
- Stay at a healthy weight. Aim for a body mass index (BMI) of less than 25. BMI is a measure of weight related to height.
- Limit alcohol to no more than 1 drink a day if you were born female or 2 drinks a day if you were born male. One drink is equal to 12 ounces of regular beer, 8 ounces of craft beer, 5 ounces of wine or 1.5 ounces of any spirit.

Note: Be aware that the American Institute for Cancer Research and the World Cancer Research Fund International state that no amount of alcohol of any type is low enough to avoid an increased risk for cancer. See Page 69.

- Eat at least 5 servings of vegetables and 2 servings of fruit every day.
 - » Your oncologist may refer you to meet with a registered dietitian nutritionist (RDN) who specializes in working with people who have cancer.
- Use a water-resistant, broad spectrum sunscreen that's SPF 30 or higher. Making healthy habits part of your life can be difficult. Talk to your care team if you need additional help during this time.

Other resources may include:

- Cancer rehabilitation
- Nutrition services
- Advance care planning— An advance care planning social worker can help you complete your health care directive. This document helps make sure your family and doctors understand your wishes for your health.

Ask your care team about the availability of these resources.

Follow-Up Care

After you finish your cancer treatment, you'll continue to receive follow-up care. Your follow-up care depends on your type of cancer, your treatment and your health.

Knowing exactly how each person will respond to cancer treatment and whether the cancer will return is impossible. For this reason, medical follow-up is important. Your follow-up care includes regularly scheduled appointments with your care team.

In addition to regularly scheduled appointments, your follow-up care may include a survivorship visit and development of a survivorship care plan.

Types of doctors to see in follow-up care

You'll continue to see an oncologist for your follow-up cancer care and cancer-related medical care.

Continue to see your primary care clinician for your routine preventive health care. Not all symptoms are related to your cancer.

Your oncologist may refer you to see other clinicians, depending on your individual needs. Let all clinicians you see know you're a cancer survivor.

What are the benefits of having a primary care clinician?

We strongly encourage you to have a primary care clinician. This clinician works with you to maintain your best health.

Studies have shown that people who have a primary care clinician:

- Have better health.
- Are more likely to receive appropriate care.
- Have a higher rate of receiving recommended preventive services.
- Are more efficient in accessing health care services.

Talk with your care team about how you can find a primary care clinician.

Finding Help and Support after Cancer Treatment

Your cancer care center has access to a team of experts who specialize in providing the mental, emotional, spiritual and practical support you and your family may need. Resources may include:

- Counseling and psychotherapy services
- Cancer rehabilitation
- Nutrition services
- Advance care planning—See Pages 93 to 94 for more information.

Psychotherapists, social workers and registered dietitian nutritionists (RDNs) are some of the professionals who may be able to help you during and after your treatment.

In addition, your cancer care center may offer classes, groups and community resources to further support you and your family. Ask your care team for more information.

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Advance Care Planning: Prepare for Your Future Medical Decisions

Advance care planning can help you understand and plan for a time when you're unable to make your own medical decisions. It lets you make your voice heard so your wishes are followed.

Even if you feel close to loved ones, they may not know what you want for future medical care. You can provide clarity and understanding among family members and your doctor and health care team by taking these steps:

- **Choose a health care agent.** This person makes health care decisions for you if you're unable to make decisions for yourself.
- **Engage in conversations.** Discuss your values and wishes about future health care with your health care agent, doctor and other important people in your life.
- **Complete a health care directive.** This is a written plan for your future medical treatments and to identify someone to communicate your wishes if you can't.

Start planning now

Advance care planning for future health care choices is important to do while you're able to make your own decisions. We recommend adults 18 and older start the advance care planning process. Review and update your health care directive whenever you want or when you have a significant change in health status or life circumstances.

Before creating a health care directive, think about what matters most to you. There are no right or wrong answers. Begin by asking the following:

- Whom do I trust to make decisions for me if I can no longer make my own health care decisions?
- What are my values and beliefs about life and death, and quality of life?
- What do I need my doctor to know about me?

If you don't have a written health care directive, you'll still receive medical treatment. Your care team will listen to what people close to you say about your treatment wishes.

Health care directive forms

The health care directive form differs from state to state. Talk with your care team about completing a health care directive form for where you live. Also talk with your care team about other advance care planning resources.

DNR order form

When you have your doctor authorize a DNR (do-not-resuscitate) order form for you, it tells emergency medical technicians, first responders and staff at emergency health care facilities that they're not to try CPR (cardiopulmonary resuscitation) on you if you experience cardiac or respiratory arrest. The purpose of a DNR order is to make sure that medical care provided in the emergency center and out-of-hospital settings matches your desire and the doctor who authorized the form for you.

Talk with your care team for more information about a DNR order form.

If you live in Minnesota

Minnesota residents complete a ***Provider Orders for Life-Sustaining Treatment (POLST) form*** instead of a DNR form. If you live in Minnesota, talk with your care team for more information.

Resources for more information

- **Honoring Choices Wisconsin**
wismed.org/wisconsin/wismed/about-us/honoring-choices/wismed/about-us/honoring-choices.aspx
Information on advance care planning from the Wisconsin Medical Society
- **Wisconsin Department of Health Services Division of Quality Assurance**
800-642-6552
dhs.wisconsin.gov/guide/complaints.htm
For filing complaints involving quality of care or quality of life, including but not limited to abuse, neglect, lack of staffing, unsafe conditions, poor care, mistreatment, transfers, discharges and caregiver misconduct.

Financial and Billing Support

Paying medical bills and buying medicine or medical supplies—while also meeting regular living expenses—can quickly become a challenging financial burden.

Medical insurance coverage

Before you start treatment, read and understand your insurance policy to check what care services and medicines your plan will and won't cover. Call your insurance provider to confirm the answers to the following questions:

Is my cancer care center in my plan's network?

- Yes
- No

Note: You'll likely get the most benefits from your plan when you use a cancer center that's in your plan's network. Using an out-of-network cancer center will probably provide different coverage, and you'll pay more for services and medicines.

What services and medicines does my plan cover for cancer treatment and care?

Do I need to get a referral or prior authorization (preapproval) for cancer services or medicines?

What's the process for having my plan pay for my cancer care services and medicines?

Note: Cancer treatment and care involves services, such as laboratory tests, radiology services, office visits, chemotherapy, prescription medicines and other services. These services are typically billed separately.

What costs will I be responsible to pay?

- **Copays** _____
- **Deductible** _____
- **Coinsurance** (percentage of costs that you pay after you've paid your deductible)

- **Prescription medicines** (if part of your plan)

- **Out-of-pocket maximum** (the most you'll pay in a calendar year)

What if I have questions about payment?

If you're having problems or concerns with insurance coverage and reimbursement, contact your cancer care center's financial, billing or patient accounting department. They're available to answer your questions or refer you to the appropriate person. The department's phone number can be found on your billing statement.

Common financial questions include:

- Understanding health insurance coverage
- Paying for prescriptions
- Claim denials
- Billing, coding and authorization questions
- Payment plan options

What if I need help with payment?

If you're unable to pay for prescriptions or your medical bills and need help, notify these resources for options:

- Social worker
- Financial, billing or patient accounting department
- Care team
- County health and human services agency

Employment rights

Legally, you can't be forced to leave your job because you have cancer. Check your employer's policies and benefits. Ask an employee assistance representative about the obligation your employer has to you. If you feel too ill to work full time or are unable to do your job, consider the following:

- Ask your doctor to write a letter (or prescription) to your employer that verifies your medical condition and recommends ways to reduce your workload.
- Ask your employer:
 - » Whether you can change your schedule to work during the times you feel best.
 - » About training for a new job if you're unable to do your current job.
 - » About disability benefits and recommendations for other options.

For information about eligibility for disability payments, visit [ssa.gov](https://www.ssa.gov) or call the Social Security Administration at **800-772-1213**.

For information about employee rights, call Equal Employment Opportunity Commission at **800-669-4000**.

Online Resources

The following websites offer trustworthy and accurate resources and information to help you along your journey information about cancer .

- **Cancer Center of Western Wisconsin**
cc-ww .org
 - **HealthPartners Online Health Library**
healthpartners .com/healthlibrary
 - **American Cancer Society**
cancer.org
 - » Types of cancer, patient services, treatment options and decision tools
 - » Finding a clinical trial or treatment center
 - » Information about children with cancer and living with cancer
 - » How to find resources, including support groups, in your community
 - » Cancer statistics
 - » Information about the National Cancer Survivorship Resource Center
 - » Information also is available in other languages (primarily Spanish).
 - **Cancer.net (American Society of Clinical Oncology)**
cancer .net
 - » Navigating cancer care
 - » Coping with cancer
 - » Research and advocacy
 - » Survivorship
 - **Chemocare**
chemocare .com
 - » Managing side effects of chemotherapy
 - » Chemotherapy drug information
 - » Eating well during chemotherapy
 - » What to expect before and after chemotherapy
 - **MedlinePlus**
medlineplus .gov/cancer .html
 - » Information about cancer
 - » Types of cancer tests
 - » Prevention and risk factors
 - » Treatment and therapies
 - » Links to online medical resources, including the National Library of Medicine (NLM), the National Institutes of Health (NIH) and other government agencies and select health organizations
- Information also is available in other languages (primarily Spanish).

- **National Cancer Institute (NCI)**
cancer.gov
 - » Types of cancer and treatment options
 - » Physician Data Query (PDQ) database of cancer treatment summaries, screening, prevention, supportive care and ongoing clinical trials
 - » Dictionary of cancer terms
 - » Genetics, causes, risk factors and prevention
 - » Coping and support resources
 - » Help lines via phone, live online chat and email
 - » Information also is available in Spanish
 - **National Center for Complementary and Integrative Health**
nccih.nih.gov/health
 - » Fact sheets about herbs, botanicals and dietary and herbal supplements
 - » Mind-body medicine
 - » Safety and effectiveness of complementary and alternative treatments and therapies
 - » Video, image and audio resources
 - » Tips for finding a complementary-health practitioner
 - » Research and clinical trials results
- Information also is available in Spanish .

- **National Institutes of Health**
nih.gov
 - » Links to medical information, including prevention, diagnosis and treatment of a wide variety of conditions
 - » Health and wellness resources
 - » Toll-free phone health information lines listed by health condition
- **OncoLink**
oncolink.com
 - » Resources on cancer prevention and treatment maintained by the University of Pennsylvania Cancer Center
 - » Nutrition and cancer
 - » Side effects of cancer treatment
 - » Common chemotherapy agents
 - » Social and psychological support and coping suggestions

Community resources

Talk with your care team about cancer support organizations and resources in your area .

Your Cancer Care Guide (Cancer Center of Western Wisconsin)

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Education Resources

