

# Your Care Guide

## When do I call my doctor?

If you have questions regarding side effects from your treatment, call us:

### **Monday through Friday, 8 a.m. to 4:30 p.m.**

We will direct your call to a nurse, who may consult with your clinician.

- **Medical Oncology**

- » Regions Cancer Care Center  
651-254-3572

- » Riverside Cancer Care Center  
612-341-4800

- **Radiation Therapy**

- 651-254-2039

### **After clinic hours, Saturday, Sunday and holidays**

- **Medical Oncology:** Call HealthPartners CareLine<sup>SM</sup> service at **612-339-3663**. The service will direct your questions to the doctor on call. A doctor will call you back.

- **Radiation Therapy:** Call **651-254-2039**.

## Calling 911

If you experience life-threatening symptoms, call **911**.

## Calling during clinic hours

- For questions about your medication, treatment or side effects
- For prescription refills
- For lab or scan results

Some symptoms are important to tell us about but you do not need to call us immediately. Depending on your symptoms, we may direct you to see your primary care doctor, urgent care or emergency center.

## Calling for a mental health crisis

Call Mental Health Crisis Alliance, a 24-hour crisis hotline, at **651-266-7900** for confidential, non-judgmental free counseling and support.

The Mental Health Crisis Alliance is not affiliated with HealthPartners Cancer Care Centers at Regions Hospital and Riverside Clinic.

## Calling us immediately

Call us immediately at any time of the day if you experience any of the following symptoms:

- Fever higher than 100.5°F (38°C)
- Nausea or vomiting that is not relieved by anti-nausea medication within 3 to 4 hours
- Uncontrolled or existing pain that worsens or does not get better with medication
- 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, or confusion
- Thoughts of hurting yourself

# Your Care Guide for Living with Cancer

Name:

Dear Patient and Family Members,

Welcome to HealthPartners Cancer Care Center, a 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 likely will have many questions and experience a wide range of emotions. This care guide provides information to answer your questions and support you as you embark on this journey.

We consider anyone who is 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
- Immediately 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 journey. With the combined support of your care team, family and friends, you can be assured you are being provided the best support and care.

### **Tips for using this care guide**

To find the information most relevant to you, look at the different sections marked by tabs. The backs of some tabbed pages have pockets to keep any additional information.

In this care guide, you will 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
- Blank pages to write information about your cancer experience

We hope the information you find in this guide provides comfort and hope as you embark on your cancer survivor journey. Ask us questions and discuss any concerns you may have at any time. We are here to support you in living a life of health and wellness as a cancer survivor.

***Your HealthPartners Cancer Care Center Team***

# Contents

Page

Your Diagnosis	1
Cancer Treatment	17
Chemotherapy	31
Radiation Therapy	57
Nutrition, Activity and Quitting Smoking	65
Resources	81
Your Journey Forward: Survivorship	95

## Locations and telephone numbers

- **Regions Cancer Care Center**

640 Jackson Street

1st Floor

St. Paul, MN 55101

**651-254-3572**

- **Riverside Cancer Care Center**

2220 Riverside Avenue South

2nd Floor

Minneapolis, MN 55454

**612-341-4800**

---

- **Radiation Therapy**

640 Jackson Street

1st Floor

St. Paul, MN 55101

**651-254-2039**



	<b>Page</b>
Getting to Know Your Care Team _____	3
Getting to Know Your Medical Team _____	4
Getting to Know Your Support Team _____	6
Emotions During Your Cancer Journey _____	10
Sharing Your Diagnosis _____	11
Talking to Your Doctor _____	14

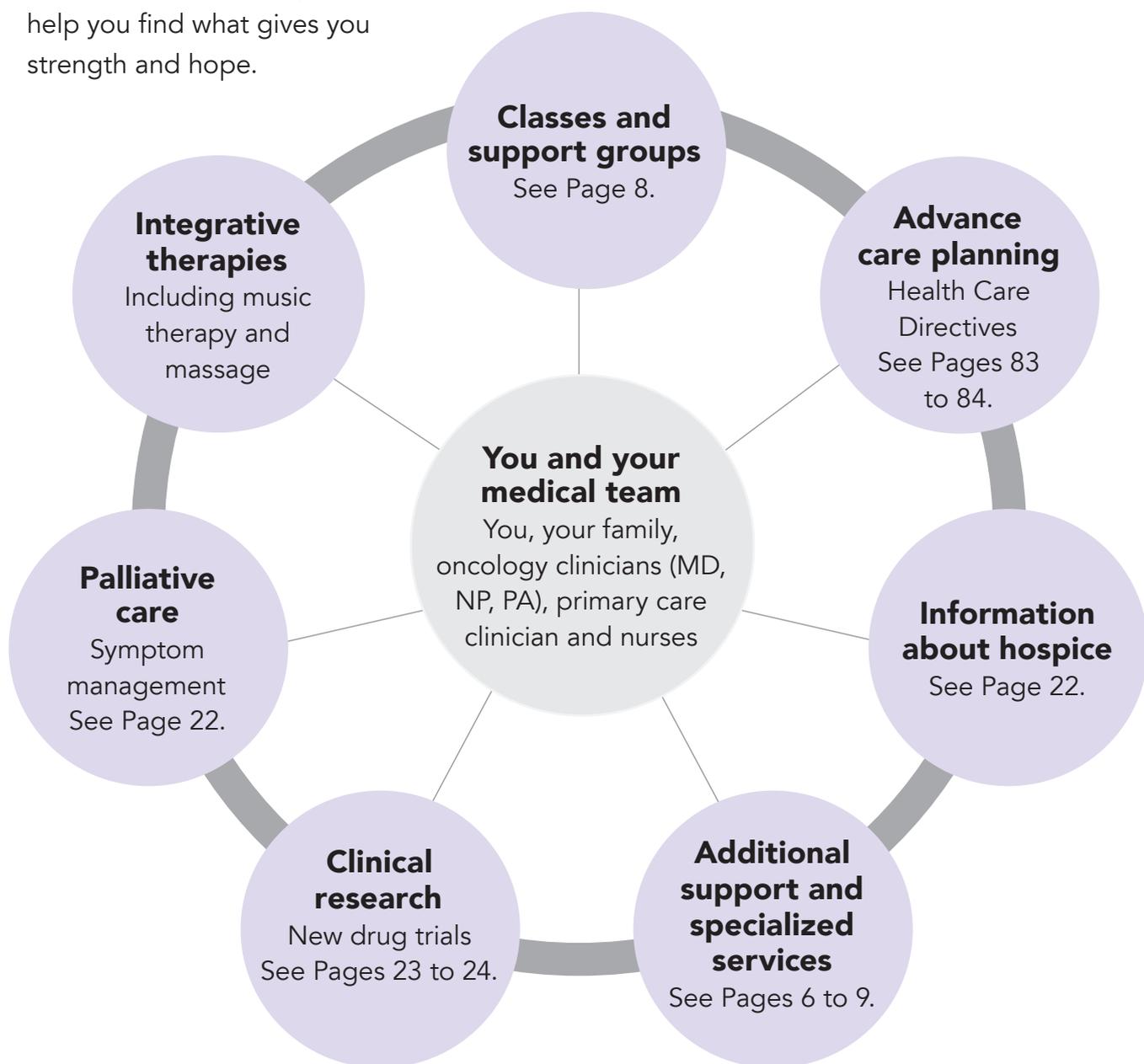
# Back of Tab

# Getting to Know Your Care Team

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

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

Your care team includes your medical team surrounded by your support team. These health care experts make sure you get the care you need. Who is on your care team depends on your individual needs. To learn more about how your medical team members can help you, see Pages 4 to 5.



# Getting to Know Your Medical Team

The members of your medical team include highly skilled clinicians from varied specialities. In addition to you and your family and friends, your medical team may include some of the medical professionals in the table on the next page.

We understand that cancer affects your whole life. We work closely with other support services that are available at HealthPartners. 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 (NP) and physician assistants (PA). They have advanced education and expertise. They maintain close working relationships with doctors and provide some of the same care.
Medical dosimetrist	A medical dosimetrist works with radiation oncologists to plan your treatment.
Medical physicist	A medical physicist oversees the treatment planning process and does quality control of the treatment plan and the equipment.
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	<ul style="list-style-type: none"> <li>• An outpatient pharmacist fills prescriptions and provides information about medications.</li> <li>• A specially trained pharmacist reviews and prepares chemotherapy.</li> </ul>
Primary care clinician	A primary care clinician is your main health care contact and manages your care over time. This clinician may be an NP, PA or MD and provides a wide range of care, including prevention, treatment and referrals to specialists.
Radiation oncologist	A radiation oncologist is an MD 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 Team

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

Whenever you have questions, please ask. We are here to help promote health and healing as you and your family and friends cope with the challenges of cancer.

In addition to receiving medical treatment for your cancer, getting the physical, emotional, practical and spiritual support you need also is important. Talk to your care team for specific information on how to use the resources in this section.

## **Counseling services** **612-254-3572**

Psychotherapists are available at Regions Cancer Care Center 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 meaning 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 are seeking counseling or psychiatric treatment, please check with your health insurance company about coverage and benefits for mental health services.

## **Social work** **651-254-3572**

An oncology social worker is actively 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 Minnesota, our experienced social workers can help you and your family cope effectively with a variety of life changes that may occur with a cancer diagnosis.

## **Genetic counseling**

- **Regions Cancer Care Center**  
**612-254-3572**
- **Riverside Cancer Care Center**  
**612-341-4800**

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 will 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 of cancer

### ***What is genetic testing?***

Usually, genetic testing involves drawing blood. The blood is tested for inherited changes in 1 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.

Genetic counseling and genetic testing are reimbursed benefits in many insurance plans. These services are billed separately.

### ***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 have been tested already.

- Plan to arrive 10 minutes before your appointment time to allow time to check in.

### **Classes and support groups**

At our Cancer Care Centers, we have 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.

### **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 is not working at its best. Your daily life, recreation and work can be impacted by severe fatigue, pain, joint stiffness, weakness, numbness or swelling. You also may have problems with balance, thinking, memory, speaking, eating or swallowing.

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 language pathology***

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 102).

#### ***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, range of motion, exercises and compression.

See Pages 103 to 104 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.

### **Physical medicine and rehabilitation doctor (physiatrist)**

A medical doctor who specializes in rehabilitation, called a *physiatrist*, helps with diagnosis of functional difficulties during and after cancer treatment. The doctor also works with the care team to establish a treatment plan that may include education, medication, procedures, equipment and therapy services. The doctor helps find what therapies and services are most beneficial and appropriate.

### **Scheduling an appointment**

Talk to your doctor, your nurse or your social worker about the services that may benefit you.

### **Nutrition**

If you have specific questions about nutrition and cancer, talk to your care team. A registered dietitian nutritionist (RDN) is available at Regions Cancer Care Center 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

### **Additional support services**

In addition to the support services listed in this section, some people may benefit from the following support services:

- Complementary therapy, such as massage therapy and music therapy
- Home care services
- Spiritual care
- Sexual health

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

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. Call **651-254-3572** to schedule an appointment.

### **Patricia D. Lundborg Cancer Library Monday through Friday, 9 a.m. to 5 p.m. 651-254-2215**

Located at Regions Cancer Care Center, the library has over 900 books and DVDs with cancer-related information. You may check out materials for 3 weeks. The library is open to patients, families, staff and the community.

# Emotions during Your Cancer Journey

The feelings cancer brings up are different for everyone. Some people compare the emotional experience of dealing with cancer to a roller coaster ride. You may feel:

- 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 journey. Think about how you have successfully dealt with difficult situations in the past. Knowing what works best for you, and what does not, can help you gain strength and courage and be hopeful as you go through treatment.

## **Depression**

Sometimes, dealing with the emotions brought on by cancer can become overwhelming. Depression can occur, but is treatable.

Let your care team know if you have a history of depression and about previous treatment that has helped. Remember, you are not alone. We are here to support you. Call a social worker for emotional and mental health concerns at **651-254-3572**.

## **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.

- Loss of control over your schedule and work routine
- Loss of control and 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 Page 6.

# 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 need not 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 co-workers.

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 them to keep your news confidential. See Page 87 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 do not 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 do not have to respond. You can ask a supportive loved one to help you respond when you are 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 also are 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 feelings and reactions are normal.

The belief that you should not 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 do not want to talk about your cancer, that is OK, too.

What is 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 mature enough to sense something is wrong can be supportive when offered a straightforward explanation of the situation.

When children are not 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 is going on and be clear about what is **not** 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 will be forever grateful for her sensitive but matter-of-fact approach.*

— Betsy, a cancer survivor

### ***Resources for children***

Age-appropriate resources 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 materials. We also recommend the following:

- **Angel Foundation—  
Facing Cancer Together**

mnangel.org  
612-629-9000

» Offers education and support free of charge to families who have a parent with cancer

- **Telling Kids About Cancer**

tellingkidsaboutcancer.com

» Guides parents in discussing cancer with their children

# 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 with having 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 is my prognosis with these treatments?
- What are the short-term risks, side effects or symptoms 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





	<b>Page</b>
Cancer Cells and Your Body _____	19
Exploring Your Treatment Options _____	20
Clinical Trials _____	23
Medical Tests and Procedures _____	25
Managing Your Medicine _____	28

# Back of Tab

# 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 do not 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 is not cancer. It can grow large and press on other parts of the body. It stays in one place and does not 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 the lymphatic system 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 control and quality of life

Common treatment options include the following therapies.

## Chemotherapy

Chemotherapy uses different medicines to kill fast-growing cancer cells. Chemotherapy is most commonly given intravenously (IV in a vein) or orally (by mouth). 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 33 to 54 for more detailed information about chemotherapy.

## Other medication therapies

Your care team may discuss other medication 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 medication that blocks the spread of cancer cells and may limit damage to normal cells. Different cancers have different targets. Targeted therapy does not work for everyone.
- **Biotherapy.** Biological therapies use your body's natural defenses (the immune system) to fight cancer or decrease the side effects of some cancer treatments.

## **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 59 to 63 for more detailed information about radiation therapy.

### **How are chemotherapy and radiation therapy different?**

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

- In chemotherapy, the medications 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 35) 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 do not 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.

Ask your doctor for a referral if you want palliative care.

## **Hospice care**

Hospice is a philosophy of providing compassionate care to patients and family members. Hospice is not 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 weeks or months rather than years
- No longer be receiving treatment to cure the illness
- Have a referral from your clinician

# Clinical Trials

## Participating in clinical trials

Our cancer research program gives you the opportunity to participate in research studies called *clinical trials*. Clinical trials are an important treatment option for many people with cancer. Our 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 your health and quality of life. All of the cancer medications that people currently use as part of their treatment came from clinical trials. With participation of individuals like you, new medications can be approved for use.

## What is a clinical trial?

Clinical trials are research studies that involve people. Clinical trials are how researchers develop new ways to treat, prevent and diagnose cancer. For people who have cancer, clinical trials often test new medications or new combinations of treatments to see how they work. These results are compared with treatments currently being used (often called *standard care*).

Clinical trials are designed so participants are typically divided into 2 groups. One group receives the new treatment, and the other group receives the standard care for the disease. No matter which group you are in, you will receive the same high quality of care from us.

## Deciding to take part in clinical trials

Choosing to join a clinical trial is something only you, those close to you, and your doctors and nurses can decide together. As with any treatment option, a clinical trial has possible benefits as well as drawbacks.

### **Possible benefits**

- Clinical trials offer high-quality cancer care. If you are in a randomized study and do not receive the new treatment being tested, you will receive the best-known standard care. Standard care may be as good as, or better than, the new treatment.
- If a new treatment is proven to work and you are receiving it, you may be among the first to benefit.
- By looking at all your treatment choices, including clinical trials, you are taking an active role in a decision that affects your life.
- You have the chance to help others and improve cancer treatment.

### **Possible drawbacks**

- New treatments under study are not always better than standard care.
- If you receive standard care instead of the new treatment being tested, the standard care may not be as effective as the new treatment.
- New treatments may have side effects that doctors do not expect or that are worse than those of standard care.
- Even if a new treatment has benefits, it may not work for you. Even standard care, which is proven effective for many people, does not help everyone.
- Health insurance and managed care providers may not cover all patient care costs in a study. Coverage varies by plan and by study. Our research team will help you review your coverage and benefits before you participate in any trial.

### **What clinical trials are available?**

As our patient, you have access to clinical trials from pharmaceutical companies, the National Cancer Institute and the Metro-Minnesota Community Oncology Research Consortium (MMCORC). Talk to your oncologist about finding clinical trials that might be right for you.

- **Metro-Minnesota Community Oncology Research Consortium (MMCORC)**

[www.ccopnet.com](http://www.ccopnet.com)

- » Provides access to more than 120 cancer treatment and prevention studies sponsored by the National Cancer Institute (NCI) and participating community hospitals and clinics

- **ClinicalTrials.gov**

Provides updated information about federally and privately supported clinical research across the United States and other countries on a variety of diseases and conditions

### **Additional resources**

The following resources provide additional information about clinical trials:

- **Taking Part in Cancer Treatment Research Studies** by the National Cancer Institute

- » Explains how clinical trials work and what questions to ask your research team

- **ClinicalTrials.gov**

- » Answers frequently asked questions about clinical trials and provides glossary of clinical trials terms

*Information from the National Cancer Institute (**cancer.gov**) was used in this section.*

# Medical Tests and Procedures

## Getting test results

Usually, test results are available within 48 hours. If you do not receive your results, call your care team Monday through Friday, 8 a.m. to 4:30 p.m.

Some lab results are released automatically to *myHealthPartners*, your electronic medical record. 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. Talk to any member of your care team about signing up for *myHealthPartners*.

## 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 on the next page describes common imaging exams.

Type of imaging exam	What the imaging exam does
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 imagery (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 37 for more information about how your lab test results may affect your chemotherapy. The table below describes common blood tests.

Type of blood test	What the blood test does
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 do not have enough fluids.
Kidney function	A blood test checking creatinine (Cr) levels determines how your kidneys are working.
Liver function	A blood test checks how 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 are not 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 names of your medicine
  - » Why you are 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 are:
  - » Having uncomfortable side effects
  - » Not getting enough relief
  - » Having difficulty swallowing a pill or tablet or other problem with 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 is 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.
- Do not drive while taking medicine for pain or sleep.

## Refilling prescriptions

- Submit your refill requests to the pharmacy **at least 2 days** before you run out of medicine to avoid any missed doses. A bottle marked *no refill* does not mean you should stop taking the medicine. *No refill* means the pharmacy needs to check with your doctor before refilling the prescription.
- To refill your prescription pain medicine, call your doctor Monday through Friday before 3 p.m. Most prescription pain medicine must be refilled using a paper prescription and can be picked up during regular clinic hours or mailed to you. Then you bring the paper prescription to your pharmacy.



	<b>Page</b>
What Is Chemotherapy? _____	33
How Can Chemotherapy Be Used in My Treatment Plan? _____	34
How Is Chemotherapy Given? _____	35
Starting IV Chemotherapy _____	36
Managing the Side Effects of Chemotherapy _____	38
My Chemotherapy Plan _____	54

# Back of Tab

# What Is Chemotherapy?

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

## Choosing chemotherapy

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

- 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.

## Determining the amount and duration of chemotherapy

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

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

- Other medications 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 medications can kill the cancer cells and stop cancer from growing back.
- **Control cancer.** The medications can slow the growth of cancer.
- **Relieve cancer symptoms.** The medications help ease symptoms when the cancer cannot be cured.

# How Can Chemotherapy Be Used in My Treatment Plan?

Chemotherapy uses many different medications to treat cancer. Your treatment plan for chemotherapy might involve 1 medication or a combination of medications.

## **Neo-adjuvant chemotherapy**

*Neo-adjuvant 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 surgery to kill remaining cancer cells or cancer cells that have spread elsewhere in the body. Adjuvant chemotherapy helps prevent cancer from returning.

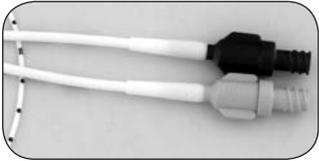
## **Taking other medications during chemotherapy**

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

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

# How Is Chemotherapy Given?

## Methods of giving chemotherapy

Method	Description
Portacath (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 in a large vein, usually in your chest. The port may be used to give IV medication or to draw blood. A needle is needed in order to use the port.
Central line (IV) 	A small, soft tube stays in your body throughout your cancer treatment. Medications can be given through the line, 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 is placed in your arm. Medications can be given through the catheter. The catheter is removed after each day of treatment.
Pill or liquid	Certain chemotherapies are taken by mouth. Not all chemotherapy medications can be taken orally. Some chemotherapy, including many targeted therapy medications, can be given only orally. Your care team will provide you with instructions on how to take your medication.
Injection	Medications 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)	Medications are given directly into a space in your abdomen called the <i>peritoneal cavity</i> by using a catheter or port.
Intrathecal (IT)	Medications are injected through a needle into the spinal cord.

# Starting IV Chemotherapy

## Before you arrive

- Invite a friend or family member with you to listen and ask questions.
- Do not use any scented lotions, soaps or perfumes. We are a fragrance-free environment. Fragrances can strongly affect nausea and respiratory issues.
- Eat before your treatment, unless your care team tells you otherwise.
  - » Avoid greasy or spicy foods as they may increase your risk for nausea.

## What to expect on your treatment days

- Usually, your chemotherapy is scheduled based on the length of the treatment.
  - » Some treatments last 6 to 8 hours and start in the morning.
  - » Shorter treatments are scheduled in the afternoon.
- Your appointment may include lab visits, nursing care and a clinician appointment. You may not always see your clinician on a treatment day.
- Wait times may vary depending on what labs have been ordered and your prescribed treatment or procedure.

## What to bring to your appointment

- Snacks or meals
  - » Crackers, toast, juice, coffee, tea, soda and snacks are available for patients.
  - » At Regions Cancer Care Center, food is available to buy at the Overlook Cafe and Hospital Cafeteria.
  - » At Riverside Cancer Care Center, several restaurants are within walking distance or delivery is available.
- DVDs, books or other activities
  - » DVD players are available in all private treatment areas.
  - » A selection of movies is available.
  - » A limited number of iPads is available at Regions Cancer Care Center.
  - » Free Wi-Fi is available.
- Medications you need during your visit, such as pain medication or insulin

*Wear something comfortable. Or fun! I had chemo on my 32nd birthday and I dressed up in my party dress and heels for my treatment.*

*—Julia, a cancer survivor*

## What happens after check in and before starting treatment

Making sure your chemotherapy is safe and accurate takes time. Multiple steps and safety checks must be followed. Your treatment may begin 60 to 90 minutes after you check in.

Steps taken include:

- Chemotherapy is ordered by your doctor.
- Your current lab results and physical assessment are reviewed by your doctor, nurse and specially trained pharmacist.
- Based on your results and assessment, you may receive:
  - » Chemotherapy as planned
  - » A different dose of the same drug
  - » No treatment that day
- If you are receiving chemotherapy, the nurse sends the medication order to the pharmacy.
- The pharmacist reviews the chemotherapy order for accuracy and completeness.
  - » The pharmacist prepares 1 medication order at a time, so each medication gets his or her full attention.
  - » The pharmacist and pharmacy technician prepare your chemotherapy using 3 stages of safety checks to make sure the medication order is correct. The technician reviews the label, gathers the supplies and prepares the chemotherapy in a sterile environment.
- Preparing your chemotherapy could take from 20 to 60 minutes. Some medications take time to dissolve.

*I thought of my chemotherapy days as my day at the spa. Although it wasn't always absolutely pleasant, the nurses were wonderful. I found if I relaxed and went with it, it was quite pleasant and an opportunity to escape from the day.*

—David, a cancer survivor

- The medication is delivered to the unit and 2 specially trained oncology nurses make sure the medication is safe and accurate.
- Your nurse scans a barcode to make sure the medication is correct and matches the order in the computer.
- Your chemotherapy is given to you by your oncology nurse.

## Preparing chemotherapy

All chemotherapy preparations must be:

- **Sterile.** The chemotherapy must be sterile (germ-free), so you do not get infected by the medicine.
- **Accurate.** The chemotherapy must be made accurately—exactly as your doctor orders. The medicine, fluid, dose and labeling all must be correct.
- **Timely.** The chemotherapy must be made in a timely manner to guarantee sterility and accuracy. *Timely* means the least amount of time to make a sterile and accurate medicine.

# Managing the Side Effects of Chemotherapy

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

Chemotherapy targets your body's fast-growing cancer cells. Chemotherapy also may 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 are not an indication of how well your chemotherapy treatment is working. Your experience with side effects depends on the medication 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 102 to 104 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.

## **Common side effects**

Some of the most common side effects of chemotherapy are fatigue, nausea, vomiting and hair loss. You may experience these side effects or others. Some people have no side effects or very few.

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.

## Where to find information on side effects

Side effect	Page
Hair loss	40
Fatigue	41
Appetite changes	41
Nausea and vomiting	42
Diarrhea	42
Constipation	43
Mouth and throat sores	44
Changes in smell and taste	45
Anemia	45
Infection	46
Bleeding	47
Numbness and tingling	47
Pain	48 to 49
Nail changes	49
Skin changes	50
Sexual changes	51
Sleep problems	52
Mood changes	52

### 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 you 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 gloves when you or your caregiver clean up spilled waste material, such as urine, stool or vomit. Wash hands before putting the gloves on and after taking the gloves off.
- Wash linens separately that have waste material, such as urine, stool or vomit.
- Use condoms during oral sex or intercourse.

## 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 both men and women, 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 company 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 company does not cover the cost, talk to a member of your care team.

You also can contact:

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

## 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.
- 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.
- Take shorter naps instead of longer naps. Rest as needed during the day but try to avoid sleeping later in the day so you are 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 are feeling most energetic.
- Find ways to relax. Try yoga, meditation or prayer.
- Ask others for help with household tasks.

*It's difficult to ask for help. But when people found out I was sick, they were there for me. They arranged so much. My colleagues and friends brought me food and gave me rides to chemotherapy.*

—Deb, a cancer survivor

## Appetite changes

Many people lose their appetite during chemotherapy. Getting good nutrition, even when you do not feel like eating, is important. Good nutrition helps you remain strong and avoid loss of 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

- Be physically active 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 are able. Some healthy choices are:
  - » Meat, poultry, fish, eggs, peanut butter, nuts and seeds
  - » Yogurt, cottage cheese and cheeses
  - » Fruit
  - » Milkshakes and ice cream
  - » Whole milk, juice and meal-replacement drinks
  - » Soups
- Make eating enjoyable. Eat with friends or try a new recipe.
- If your mouth is dry, drink more water.
  - » Do not use toothpaste or mouthwash that has alcohol.

For more about keeping your mouth moist, see Page 44.

## Nausea and vomiting

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

### What to do

- Call your care team right away if you vomit blood or if vomiting is not relieved by anti-nausea medication within 3 to 4 hours.
- Talk to your care team about medication to help provide relief. Medications 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 deep breathing—Take slow, deep breaths.

## Diarrhea

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

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

### 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 medications that are safe to treat diarrhea.
- Drink at least 8 glasses (8 ounces each) of clear fluids every day. Try water, clear soup, sport drinks, ginger ale or ginger tea. Avoid alcohol and limit caffeine. Drink milk as you are 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 liquids high in sodium and potassium, such as broth, 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.

## Constipation

Constipation is having 3 or fewer bowel movements in a week. Generally, people should have bowel movements at least every 2 days. Pain medications 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:
  - » Have not 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 do not have a bowel movement, start taking 2 tablets of senna 2 times a day.
  - » If you are 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 are 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, vegetables and whole grains, such as bread, cereal, bran muffins, cooked dried beans and peas, apricots and prunes, nuts and popcorn.
- Drink 8 to 10 glasses 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.

## Mouth and throat sores

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

### What to do

- Keep your mouth, teeth, gums and tongue clean.
  - » Brush after every meal.
  - » Use an extra-soft toothbrush.
  - » Use a water pick or cotton swab if using a toothbrush is too painful.
  - » Do not use toothpicks or mouthwash that has 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
  - » 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 8 ounces of lukewarm water
- ¼ teaspoon salt and ½ teaspoon baking soda in 4 ounces of lukewarm water

## 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 does not 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, also can 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 or ask someone else to cook for you.
  - » Use a kitchen fan or exhaust fan while cooking.
  - » Cook outside.
  - » Keep food covered.
  - » Lift lids away from you while cooking.

## 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 do not have enough red blood cells, your body does not 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.

### **What to do**

- Call your care team if:
  - » You cannot catch your breath
  - » You feel dizzy or as if you are 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 (your heart is pounding) or when you cannot catch your breath.
- Ask for help and accept help when people offer.

## Infection

Your care team will talk to you about the times you are more at risk for infections during chemotherapy. The medications 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 count throughout your chemotherapy. You may not be able to avoid infections, 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:
  - » Before you eat
  - » Before cooking food
  - » After going to the bathroom
  - » After petting animals
- Wash your hands correctly. Follow these steps:
  1. Use warm water to wet your hands.
  2. Wash hands with soap for 15 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 and nose.
- 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 to avoid cutting yourself. If you do cut yourself, clean the cut right away with warm water and soap.
- Do not clean 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 undercooked foods or raw food, such as sushi.
  - » 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 72.
- Brush your teeth 2 times a day with a soft toothbrush.
- Do not use dental floss.
- Talk to your care team about getting a flu shot.

## **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 also may 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 for a prolonged period
  - » 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 blade.
- Take extra care when handling knives and scissors.
- Wear comfortable, loose clothes.

## **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:
  - » Burning of hands or feet
  - » Constipation
  - » Feeling cold
  - » Weak or achy muscles
  - » Losing 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 is not too hot.
  - » Wear gloves when washing dishes, and 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 the pain is constant, or if it increases or decreases, what makes it worse.
- » **Response to treatment.** Describe if anything helps relieve the pain. If yes, how much and for how long?
- » **Talk to your care team about medication for pain.** Medications help improve or prevent pain before it starts or gets worse. Let your care team know about any allergies or reactions to medications.

• **Keep your pain under control.** Pain needs to be treated before it becomes severe. Many people worry they will become addicted to medication used to control pain. But addiction is extremely rare when pain medication is used to control pain. Do not hesitate to take your medication to control your pain. Talk to your care team if you have any concerns about taking pain medication. To increase your comfort, take your pain medication:

- » As soon as you start to feel uncomfortable
  - » Before getting out of bed, walking or doing breathing exercises, especially if these activities make your pain worse
  - » On schedule if you have scheduled pain medications
- You may want to keep a journal to track the pain medications you are taking and how well the medications work.
- When you are feeling more comfortable, you can return to regular activities sooner and be more active.
- » Think about what pain rating will allow you to return to normal activities. Everyone is different.

## Ideas to increase your comfort

Try different methods to help increase your comfort level. What methods have or have not worked for you in the past?

Try some of the following ideas:

- **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.
- **Relaxation.** Prayer, yoga and meditation help relieve anxiety and muscle tension. They produce relaxation, which lowers the body's stress response.
- **Heat and cold therapy.** Hot packs, heating pads and warm baths reduce inflammation and boost relaxation. Cold therapy often works better than heat in controlling 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.
- **Music.** Music can help reduce pain by taking your mind away from it.

## Nail changes

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

### 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 the house.
- Keep your nails trimmed and clean.

## **Skin changes**

The cells in your skin and nails are fast-growing cells, the kind that 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.

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 also can 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.
- Wear gloves when it is cold outside.
- Always use sunscreen (at least SPF 15) or zinc oxide when outside, even if it is cloudy.
  - » If you have radiation recall, use sunscreen with at least SPF 30 or protective clothing on 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.

## **Sexual changes**

Sex can be a difficult issue to discuss because it is such a private matter. You may feel uncomfortable or embarrassed to talk to your care team about sexual issues, but they 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. Men and women experience different side effects.

Men may:

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

Women may:

- Have less energy or sexual desire
- 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**

Both men and women 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 have 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 within 48 hours after treatment. To avoid exposing your partner to chemotherapy byproducts in semen or vaginal secretions, men and women can use condoms and not engage in oral sex. Talk with your oncologist about specific time periods to avoid exposure.

Men can manage sexual changes by:

- Talking to your doctor about medications that help with sexual problems

Women 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 are pregnant or become pregnant during treatment, inform your doctor immediately. Before your cancer treatment begins, ask your doctor about how the treatment may affect your possibility of conceiving children in the future. Chemotherapy, radiation and surgery all can affect fertility in men and women.

## **Sleep problems**

Sleep problems, or *insomnia*, happen when you cannot fall asleep or stay asleep. People have insomnia for different reasons. For example, some medications have side effects that cause problems with sleeping. Napping during the day because of fatigue can also lead to difficulty sleeping at night. Anxiety or stress can also keep people awake.

### **What to do**

- Talk to your care team if you are feeling depressed or anxious.
- Try the relaxation exercises on Page 53 to help you relax before bed.
- Practice good sleep habits. Here are some examples:
  - » 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.

## **Mood changes**

Many people have mood changes during chemotherapy. You may feel anxious, frustrated, lonely or afraid. You may feel angry or sad. All of these feelings are normal during treatment.

### **What to do**

- Talk to your care team if you are feeling depressed or anxious.
- Find ways to relax and relieve stress. Try the relaxation exercises on Page 53.
- Be physically active. See Pages 74 to 75 for ideas on physical activity.
- Join a support group. Ask your care team for more information about available support groups.

## **Relaxation exercises**

Practice these exercises to relax before, during and after your treatment. Some people enjoy listening to soft, relaxing music while doing these exercises.

### ***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 are having pain or discomfort, imagine the discomfort leaving you 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 special relaxing place.
7. Continue this slow, deep breathing for several minutes, letting the discomfort go as you exhale.
8. When you are 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. Repeat each of the following statements to yourself. As you repeat each statement, take your time to relax that part of your body completely. You may want to repeat each statement 2 to 3 times.
  - My feet are warm and heavy.
  - My back is relaxed and comfortable.
  - My chest and shoulders are relaxed and warm.
  - My neck and head are comfortable and relaxed.
  - My breathing is deep and even.
  - My heartbeat is smooth and regular.
  - When I open my eyes, I will remain relaxed and comfortable.
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.

# My Chemotherapy Plan

Usually, knowing the exact timeline for your treatment is difficult. Creating a treatment plan helps you:

- Clarify information you need
- Identify your personal needs
- Decide what will be most meaningful for your desired quality of life
- Address fears and concerns

Determining the physical, emotional and spiritual support you want helps guide your treatment plan. Use Pages 55 and 56 to write notes while talking with your care team about the best treatment plan for you. Some questions you may want to ask include:

- What is the goal of my chemotherapy?
- What chemotherapy medication will I receive?
- What are the benefits of this chemotherapy?
- What are the risks and side effects of this chemotherapy?

- How should I manage the side effects?
- How does chemotherapy affect my other medications?
- What over-the-counter-medicine or supplements can I take during chemotherapy?
- How is the chemotherapy given?
- What is my cycle length?
- How many cycles will I have?
- How long is each treatment day?
- When does my treatment start?
- What should I eat or drink before a treatment?
- What labs or tests do I need before I start chemotherapy?
- How do I schedule appointments?
- How do I know my chemotherapy is working?





	<b>Page</b>
What Is Radiation Therapy? _____	59
How Is Radiation Therapy Given? _____	60
Managing the Side Effects of External Radiation Therapy _____	62
My Radiation Therapy Treatment Plan _____	63

# Back of Tab

# What Is Radiation Therapy?

Radiation therapy is a cancer treatment that can stop cancer cells from spreading and growing. Radiation therapy also is 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 cannot 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.

## Determining 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 depends 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.** Radiation therapy can kill cancer cells and stop them from growing back.
  - » **Control cancer.** Radiation therapy can slow the growth of cancer. It also can stop cancer from spreading to other parts of your body.
  - » **Relieve cancer symptoms.** When cancer does not have a cure, radiation therapy can ease pain.

## How can radiation therapy be used?

### **Neo-adjuvant radiation**

Radiation therapy used before other treatments is called *neo-adjuvant 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 remain or have spread in your body, or to help prevent cancer from recurring.

# How Is 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 does not touch you.

### ***Preparing to start external beam radiation***

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

You also will have an appointment to prepare for your treatment. At this appointment, sometimes called a *simulation or marking session*, your care team will determine where to target the radiation.

The location for radiation will 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 immobilize (prevent from moving) your head and neck during treatments, if your head, neck or both are being treated. Sometimes other molds are made to immobilize your body 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 is not 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 will 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 are having your blood drawn at another clinic, so we do not 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 does not 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 will 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 do not 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 is 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.

*I planned my daily radiation therapy over my lunch hour. In my old life, I ate at my desk and worked through lunch. My radiation therapy gave me the chance to get out and see the sun shining.*

— Julia, a cancer survivor

# Managing the Side Effects of External Radiation Therapy

Radiation therapy can cause side effects because it may damage the healthy cells in the treatment area. Having a treatment that may make you feel worse than before you had the treatment 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 medication you take, other cancer treatments, your body's response to treatment and the area of your body being treated.

## **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 102 to 104 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.

## **Common side effects**

Some 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.

## **Side effects you may have**

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 side effects you are most likely to have and recommendations for how to manage them.

# My Radiation Therapy Treatment Plan

Usually, knowing the exact timeline for your treatment is difficult. Creating a treatment plan helps you:

- Clarify information you need
- Identify your personal needs
- Decide what will be most meaningful for your desired quality of life
- Address fears and concerns

Determining the physical, emotional and spiritual support you want helps guide your treatment plan. Use Page 64 to write notes while talking with your care team about the best treatment plan for you. Some questions you may want to ask include:

- What is the goal of my radiation therapy?
- What kind of radiation therapy will I receive?
- What are the risks of this radiation therapy?
- What are the benefits of this radiation therapy?

- How does radiation therapy affect my other medications?
- What over-the-counter medication can I take during radiation therapy?
- What are the most likely side effects?
- How should I manage these side effects?
- What time will my radiation therapy be?
- How many weeks will I have radiation therapy?
- When does my treatment start?
- What should I eat or drink before a treatment?
- What labs or other tests do I need before I start radiation therapy?
- How do I schedule appointments?
- How do I know my radiation therapy is working?



# Nutrition, Activity and Quitting Smoking

	<b>Page</b>
Nutrition _____	67
Staying Physically Active _____	74
Quitting Smoking _____	76

# Back of Tab

# 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.

Nutrition recommendations and interventions may vary by cancer type, the stage of cancer or planned treatment. Your diet may need to be adjusted throughout your treatment based on how you are feeling. Diet guidelines during and after treatment depend on many factors.

No single food, nutrient or diet has been proven to prevent or cure cancer. However, certain diet and activity 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 lifestyle guidelines**

Oncology treatment can overwhelm even a healthy person's nutritional reserve. Good nutrition during cancer treatment is key to meet the increased nutritional demands

### **Regions Hospital Nutrition Services**

If you have a specific question about nutrition and cancer, talk to your care team. A registered dietitian nutritionist is available in the Cancer Care Center to provide nutrition counseling for a wide range of needs, such as dealing with side effects, managing weight changes and navigating nutrition recommendations.

### **Scheduling an appointment**

To schedule an appointment, call **651-254-3572**.

required to support the healing process. The benefits of good nutrition during cancer treatment include:

- Preservation of lean body mass (muscle)
- A well-supported immune system
- Fewer complications
- Better quality of life
- The ability to tolerate the full treatment as prescribed

The following lifestyle guidelines help support good health.

### ***Eat mostly plant-based food***

Research suggests that eating mostly plant-based foods may give you more protection against cancer than eating any particular nutrients, compounds or individual foods.

Throughout the cancer journey, nutrients and phytochemicals from plant foods seem to work independently and together to lower your risk. Eating a variety of plant foods protects against cancers at different places in your body.

Aim for 5 or more standard servings of nonstarchy vegetables and fruits daily. Make sure you include the following:

- Cruciferous vegetables, such as broccoli, Brussels sprouts, cauliflower, turnips and green cabbage
- Dark green leafy vegetables, such as spinach, kale, lettuce, mustard greens, collard greens and Swiss chard
- Brightly colored vegetables, citrus fruits and berries
- Legumes, such as cooked dried beans, peas and lentils
- Whole grains, such as brown rice, oatmeal, whole-wheat bread, barley, bulgur, millet and farro

Also include 4 to 6 ounces of protein every day from lean beef, pork, poultry, fish, beans, tofu and low-fat dairy products. Limit your intake of red meat (beef, pork and lamb) to no more than a total of 18 ounces a week.

Limit foods that are high in calories and sugar but do not have nutrients (such as vitamins, minerals and protein).

Avoid salty foods and processed meat, such as hot dogs, salami, pepperoni, bologna, bacon and luncheon meats.

The food industry often uses the term *natural* to refer to food products, but the term has no legal definition. *Natural* does not necessarily mean *healthy*. Review the *Nutrition Facts* label on all food products.

For more information about eating healthy food, visit **eatright.org**—the Academy of Nutrition and Dietetics website.

### ***Drink plenty of fluids***

Keeping your body well hydrated is very important, especially during treatment. Without water, your body can become dehydrated and not able to carry out normal functions.

Drink plenty of fluids daily, such as water, milk, broth and pasteurized 100% vegetable and fruit juices and nectars.

Some fluids, such as coffee, can contribute to dehydration. Some symptoms of dehydration include:

- Increased thirstiness
- Headache
- Dizziness
- Cramping in legs and arms
- Weak muscles
- Dry mouth
- Constipation and dark yellow urine

To help yourself drink enough fluids, carry a water bottle with you. Sip water throughout the day.

### **Maintain a healthy weight**

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

If you are losing weight during treatment and cannot meet your nutritional needs with food alone, you may want to consider drinking a liquid nutritional supplement. Refer to your National Cancer Institute *Eating Hints* booklet for more information on managing nutrition-related side effects of treatment.

If you are gaining weight, eat a healthy diet that meets, but does not exceed, your caloric needs.

If you have questions about what a healthy weight is for you during treatment, talk to your care team or ask to meet with a dietitian.

### **Avoid or limit alcohol**

Drinking alcohol increases your risk of developing several types of cancers, including breast, mouth, throat, larynx, esophagus, liver, colon and rectum cancers, as well as other health problems. Ethanol in alcoholic beverages is known to increase the risk of cancer.

Cancer risk increases with the amount of alcohol consumed. For mouth, esophagus and larynx cancers, the risk increases greatly with more than 2 drinks per day.

Using alcohol and tobacco together increases the risk of these cancers even more compared with drinking or smoking alone.

The risk of breast cancer increases with drinking more than the recommended maximum of 1 serving of alcohol a day. Women at high risk for breast cancer may consider not drinking alcohol at all. Reducing alcohol intake is a good way for women who drink regularly to help reduce their risk of breast cancer.

Moderation is key:

- 1 drink per day for women
- 2 drinks per day for men

1 serving of alcohol is:

- 12 ounces of regular beer
- 5 ounces wine
- 1.5 ounces of 80-proof distilled spirits

### **Handle food safely**

During chemotherapy and for several weeks after your treatment, your risk for getting an infection is very high because your immune system is weakened. Handling food properly helps limit your risk of food poisoning. The symptoms of food poisoning range from nausea, vomiting and diarrhea to fever and, rarely, death.

Follow these tips for food safety.

- Wash your hands before eating.
- Wash fruits and vegetables well.
- Wash all utensils and countertops that come into contact with raw meat.
- Drink only pasteurized milk and juices.
- Store foods at low temperatures below 40°F (4.4°C) to decrease germs.
- Refrigerate leftovers within 2 hours.

- Thaw food in the refrigerator or under running cold water, not on the kitchen counter.
- Avoid salad bars, shellfish, sushi and raw or undercooked meat, poultry and egg dishes.
- Cook meat, poultry and seafood to a safe temperature. Use a meat thermometer to ensure cooking to proper temperatures. See the table below for a guide to safe temperatures.

### Safe temperature guide

Type of food	Safe temperature when cooked
Beef, veal, lamb (steak, roasts, chops)	145°F
Seafood	145°F
Poultry (whole bird, breasts, roasts, thighs, legs, wings, ground)	165°F
Ground meats (beef, veal, lamb, pork, deer)	160°F
Stuffed foods (meats, poultry, seafood, pasta)	165°F
Pork and ham	145°F
Egg dishes	160°F
Game birds (duck, goose)	165°F
Stuffing (cooked alone or in a bird)	165°F

### Nutritional therapies

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

To determine if you can 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 a vegetarian or macrobiotic diet.

#### Dietary supplements

Some people believe that 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 does not exceed the recommended Daily Value (DV) may be helpful if you cannot eat enough to obtain these nutrients.

#### Antioxidant supplements

Antioxidants are important compounds found in foods. They work by protecting the body's cells from damage.

You can get antioxidants by eating brightly colored fruits and vegetables, whole grains, beans and nuts.

Taking an antioxidant supplement is not recommended at this time, as more research

is needed to determine if these supplements are safe and effective.

### **Phytochemical supplements**

Eating foods that contain phytochemicals is part of a healthy diet. Scientists have identified hundreds of phytochemicals in foods, such as brightly colored fruits and vegetables, whole grains, beans, nuts and seeds.

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.

Taking a phytochemical supplement is not recommended.

### **Vegetarian diets**

No evidence exists that a vegetarian diet can prevent cancer from coming back. However, vegetarian diets can have a variety of health qualities. Typically, vegetarian diets are low in saturated fats and high in fiber, vitamins and phytochemicals.

If you follow a strict vegetarian diet, you may need to take a vitamin B12 supplement. Talk to your dietitian to make sure you get the vitamins you need.

### **Soy**

Isoflavones in soy foods often are studied in relation to cancer risk. Research suggests that soy foods do not increase cancer risk, and, in some people, may lower the risk. The role of soy in an overall cancer-protective diet needs to be studied more.

Research on soy and breast cancer is conflicting. Current research supports having

up to 3 servings daily of soy. Choose whole soy foods, such as tofu, soybeans and soymilk.

High doses of concentrated sources of soy, such as soy powders and isoflavones supplements, are not recommended due to the lack of safety data.

### **Macrobiotic diets**

No studies have shown a macrobiotic diet can cure or prevent cancer. A macrobiotic diet is very restrictive and excludes foods, such as dairy products, eggs, coffee, sugar, certain herbs, red meat, poultry and processed foods.

If you choose to follow a macrobiotic diet, make sure you are getting enough calories and nutrients.

### **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* does not necessarily mean *safe*. Even natural substances can be harmful at high levels. Natural substances also may negatively affect some medications or other treatments you may be taking.
- Be aware that the federal government does not test dietary supplements for safety or approve them for sale.
- Evaluate only nutrition information from trusted medical or health-related sources. Qualified health professionals should review any additional treatment you may 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.

### **Exposure to chemicals in food**

Many people are concerned about their exposure to environmental chemicals, both in our food and in food containers. Scientists do not know if these chemicals have poor effects on 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:

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

Bisphenol A (BPA) and phthalates are common chemicals used in plastic bottles, storage containers, food wrap and food cans. Scientists do not know if 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 (use fresh products rather than prepackaged meals) whenever possible.
- Choose minimally processed foods.
- Store foods in nonplastic containers, such as glass.
- Avoid heating foods in plastic dishes. Use a glass or porcelain dish to heat food.
- Do not microwave or heat plastic cling wraps.
- Do not 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.”
- Do not leave plastic water bottles in warm places, such as your car on a hot day.

## Websites

- **American Cancer Society**

[cancer.org/treatment/survivorshipduringandaftertreatment/nutritionforpeoplewithcancer/index](http://cancer.org/treatment/survivorshipduringandaftertreatment/nutritionforpeoplewithcancer/index)

» Provides information about nutrition during and after cancer treatment

- **American Institute for Cancer Research**

[aicr.org](http://aicr.org)

» Provides information about cancer research and ways to reduce your cancer risk

- **American Society of Clinical Oncology**

[cancer.net/navigating-cancer-care/prevention-and-healthy-living/diet-and-nutrition](http://cancer.net/navigating-cancer-care/prevention-and-healthy-living/diet-and-nutrition)

» Provides information on diet and cancer

- **National Institutes of Health**

[nih.gov](http://nih.gov)

» Links to reliable medical information, including prevention, diagnosis and treatment of a wide variety of conditions

» Health and wellness resources, including health newsletters

» Toll-free telephone health information lines listed by health condition

- **Nutrition in Cancer Care, National Cancer Institute**

[cancer.gov/cancertopics/pdq/supportivecare/nutrition/Patient](http://cancer.gov/cancertopics/pdq/supportivecare/nutrition/Patient)

» Provides an overview of nutrition in cancer care, including effects of cancer treatment on nutrition and types of nutrition care

- **Office of Cancer Complementary and Alternative Medicine, National Cancer Institute**

[cam.cancer.gov](http://cam.cancer.gov)

» Provides information about 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](http://ods.od.nih.gov)

» Provides dietary supplement fact sheets for vitamins, minerals and other dietary supplements

- **Smart Nutrition 101**

[nutrition.gov/smart-nutrition-101](http://nutrition.gov/smart-nutrition-101)

» Provides information and practical resources to plan and eat a healthy diet

## Books

### **American Cancer Society Complete Guide to Nutrition for Cancer Survivors: Eating Well, Staying Well During and After**

**Cancer** by Barbara L. Grant, MS, RD, CSO, LD; Abby S. Bloch, PhD, RD; Kathryn K. Hamilton, MA, RD, CSO, CDN; and Cynthia A. Thomson, PhD, RD, CSO. American Cancer Society, 2010.

### **Tell Me What to Eat Before, During, and After Cancer Treatment: Nutritional Guidelines for Patients and Their Loved**

**Ones** by Jodi Buckman Weinstein, MS, RD, CDN. Career Press, 2010.

# Staying Physically Active

Many research studies suggest staying physically active during cancer treatment can have a positive impact on:

- 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.

### **Signs of doing too much exercise**

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

- Dizziness or feeling lightheaded
- Nausea or vomiting
- Shortness of breath and difficulty breathing
- Cold, clammy sweat
- Unexplained anxiety, weakness or fatigue
- Pain or discomfort in your chest, neck, upper back or arms, such as pressure, aching, burning, squeezing, tightness, heaviness or fullness
- 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 8 to 9 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 stretch 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 are 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. Choose a starting level and 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 are able. If you are 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.

# Quitting Smoking

The connection between tobacco and cancer is clear. Tobacco is the main cause of lung cancer and also plays a role in other types of cancer. If you use tobacco, talk to your doctor about ways to quit.

## Stop smoking for life

You probably already know why you want to stop smoking cigarettes. Maybe you have quit before, only to start again. Did you know it is common to attempt quitting several times before succeeding?

Overcoming the chains of nicotine is not easy. You are battling against the most powerful addictive substance that is legally available. But with determination and a plan, you can stop smoking for life.

Smoking is an addiction. Seconds after you inhale tobacco smoke, nicotine travels to the brain, telling it to release chemicals to make you want to smoke more. Over time, your body gets used to the nicotine. When you try to cut back on the number of cigarettes or quit, the absence of nicotine leads to withdrawal symptoms and cravings. Smoking is the body's urge to avoid withdrawal symptoms.

## Identifying your triggers

Your smoking behavior is as unique as you are. Therefore, your quitting plan should be designed individually for you. Begin by

identifying the times and situations that make it difficult for you to avoid smoking. These times and situations are referred to as your *triggers*.

For about a week, smoke as you normally would, doing your usual activities. Be aware of every cigarette. Even if you think you know your triggers already, write them down. The results may surprise you. For every cigarette you have, ask yourself the following questions and write down your answers in a journal.

- What is the date and time?
- How did I feel before smoking?
- Where am I?
- What am I doing?
- Who am I with?
- Why did I smoke?
- How did I feel after smoking?

Be honest. Answers may repeat. When you have enough information to identify your triggers, review what you have written. Form your plan for avoiding the habitual traps in your life.

Carefully choose a date at least a week away as your quitting day. Give yourself the best chance for success by picking a nonroutine day with the fewest triggers.

## Getting ready

Mark your calendar, tell your family and friends. Make your quitting day an official declaration.

One week before quitting day, begin lowering your nicotine intake. Go gradually. Journaling about what you are doing may be helpful. By the last day of the week, smoke 7 or fewer cigarettes. Here are some tips for cutting down:

- Get rid of all the cigarettes you identified in your journal as “smoked for no reason.”
- Smoke only half of the cigarettes you did not get rid of.
- Look for ways to avoid your triggers and find acceptable substitutions for your smoking time.
- Each day, postpone your first cigarette by 1 hour.
- Try drinking milk, which many people consider incompatible with smoking.
- Buy only 1 pack of cigarettes at a time.
- Empty your ashtrays into 1 large glass container, so you can see the accumulation of butts.
- Put your lighter and cigarettes out of reach.
- Focus on the cigarette, not the activity, and think about why you want to quit.
- Alter habits to make them less pleasurable. For example, if you like smoking with others, smoke alone instead.
- Reduce the amount of coffee, tea and other products that contain caffeine in your diet—caffeine may trigger the urge to smoke.

## Medical support

Research shows that counseling combined with nicotine replacement therapy (NRT) increases your chance to overcome nicotine addiction. NRT often helps ease many of the physical symptoms of withdrawal. Your clinician can recommend an NRT, such as nicotine gum, lozenges, or a patch, spray or inhaler.

Prescription medication is another option. Varenicline (Chantix) is a medication that was developed specifically to decrease the urge to smoke and help people stop smoking. Bupropion SR (Zyban), an antidepressant, also can be helpful for some people.

## Overcoming withdrawal

Symptom	Treatment
Dry mouth, sore throat	Sip ice water or fruit juice, and chew gum.
Headaches	Take a warm bath.
Trouble sleeping, irritability	Practice relaxation techniques, such as listening to soft music.
Irregularity	Eat more fruits and vegetables and drink 6 to 8 glasses of water a day.
Fatigue	Do not push yourself. Sleep and let your body heal.
Coughing	Drink herbal tea, and use cough drops and hard candies.

## Staying nicotine free

You made the commitment to stop smoking and, as with other habits, changing behaviors can take time. If you get urges, pull out your journal and read your story of success. Go for a walk or try another form of exercise.

Remember how tough the beginning was. Resolve not to put yourself through that again. Journal each temptation and how you coped with the urge to smoke. Build up coping strategies should the urge to smoke return. Reflect upon the joys of being a nonsmoker:

- Better health
- Clearer breathing
- No hacking cough
- A refreshingly new sense of smell and taste

The high levels of carbon monoxide and nicotine in your body rapidly decline when you stop smoking. You are free from the mess, smelly clothing, dirty ashtrays, expense, inconvenience and dependence caused by cigarettes.

### Secondhand smoke

Secondhand smoke is the smoke from a burning cigarette or the smoke exhaled by a smoker.

Secondhand smoke causes cancer in nonsmokers.

To reduce your risk of developing cancer from secondhand smoke, do not allow smoking in your home, car or workplace.

## Resources

Everyone in Minnesota has access to free telephone support to quit tobacco—either through individual health insurance plans or through QUITPLAN Services.

Contact your health insurance company for more information. Find your health insurance quitline in the following list:

- **Blue Cross and Blue Shield of Minnesota**  
888-662-BLUE (888-662-2583)
- **CCStpa**  
888-662-QUIT (888-662-7848)
- **First Plan of Minnesota**  
888-662-BLUE (888-662-2583)
- **HealthPartners**  
800-311-1052
- **Medica**  
800-934-4824
- **Minnesota Comprehensive Health Association**  
866-QUIT-4-LIFE (866-784-8454)
- **Metropolitan Health Plan**  
888-354-7526
- **PreferredOne Community Health Plan**  
800-292-2336
- **UCare Minnesota**  
888-642-5566
- For others, call the **QUITPLAN Helpline**  
888-354-PLAN (888-354-7526)  
quitplan.com

## **Websites**

- **American Cancer Society**  
cancer.org
- **American Heart Association**  
heart.org
- **American Lung Association**  
lung.org
- **Campaign for Tobacco-Free Kids**  
tobaccofreekids.org
- **Centers for Disease Control  
and Prevention**  
cdc.gov/tobacco/
- **National Institutes of Health**  
nlm.nih.gov/medlineplus
- **Nicotine Anonymous**  
877-TRY-NICA (877-879-6422)  
nicotine-anonymous.org
- **QUITNET**  
quitnet.com  
» Free internet-based support group



	<b>Page</b>
Advance Care Planning: Prepare for your future medical decisions _____	83
Financial and Billing Support _____	85
Regions Hospital Foundation: Make good happen _____	88
Community Resources _____	89
Online Resources _____	92

# Back of Tab

# Advance Care Planning: Prepare for your future medical decisions

Advance care planning can help you understand and plan for a time when you are unable to make your own medical decisions. It allows you to 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, your doctor and health care team.

Advance care planning involves these important steps:

- **Choose a health care agent.** This person makes health care decisions for you if you are 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 are unable to do so.

## Start planning now

Advance care planning for future health care choices is important to do while you are healthy and 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:

- 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 do not have a written Health Care Directive, you will still receive medical treatment. Your health care team will listen to what people close to you say about your treatment wishes.

## **The POLST form**

*A Provider Order for Life Sustaining Treatment* is a signed medical order that communicates your health care wishes to health care providers during an emergency.

### ***How does a POLST differ from a Health Care Directive?***

A Health Care Directive is a document you sign that communicates your wishes should you be unable to make independent health care decisions. Health Care Directives are recommended for all adults regardless of health status.

A POLST translates the wishes documented in a Health Care Directive into medical orders that your doctor reviews and signs. Emergency responders must have medical orders to carry out these specific health care wishes in an emergency.

### ***Who should have a POLST form?***

People with serious health conditions who need to make decisions about life-sustaining treatments in advance of medical emergencies. Even if you have a Health Care Directive, a POLST is important for providing greater detail in an emergency.

### ***Where is a POLST form stored?***

A POLST form is intended to travel with you between care settings including your home, long-term care facility or hospital. Keep the POLST form where emergency responders can easily find it. Also keep a copy in your electronic medical record.

## **Resources**

Advance care planning help is available to help you discuss and complete Health Care Directives and POLST forms.

For more information about advance care planning, use the following resources:

- **HealthPartners**

- » For forms and information, visit [healthpartners.com](http://healthpartners.com) and type “health care directive” in the search box.

- **Honoring Choices Advance Directive Information Session**

- » Offered at HealthPartners Riverside Clinic at no cost to learn about advance care planning. Call **612-341-4926** for more information.

- **HonoringChoices.org**

- » Information on advance care planning from the Twin Cities Medical Society, a collaboration of Twin Cities area hospitals

- **Minnesota Department of Health Office of Health Facility Complaints**  
651-201-4200 or 800-369-7994

- » For filing complaints if you believe a doctor or other member of your health care team has not followed Health Care Directive requirements

- **Minnesota Health Information Clearinghouse**

- 651-201-5178 or 800-657-3793

- » For filing complaints if you believe a health plan has not followed Health Care Directive requirements

# 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**

Understanding explanation of coverage and benefits from your health insurance company can be difficult and time-consuming. To help manage finances, check what care services your health insurance will and will not cover before you receive treatment. And for services covered, check when the insurance company will send payment and to whom (reimburse you or pay the clinic).

Before talking with patient accounting, read and understand your insurance policy. Then call your insurance company for answers to the following questions.

### **What type of policy do I have?**

For example, medical coverage or prescription medication coverage, or both.

---

---

### **Is the Cancer Care Center in my network?**

---

---

### **Are there professional and facility fees if I have services at Regions Cancer Care Center (a hospital outpatient clinic)?**

---

---

### **If HealthPartners is not in my network, what is my coverage and benefits for out-of-network care? How much will I be required to pay if HealthPartners is not in my network?**

---

---

### **What are my copays and deductibles for office visits, chemotherapy, radiation, prescription medications and other services?**

---

---

**Before I receive services, do I need a referral from my primary care clinic or doctor?**

---

---

**What is my policy's out-of-pocket maximum (catastrophic coverage)?**

---

---

**What care services require prior authorization from the insurance company?**

---

---

Also, consider if you will be able to manage the out-of-pocket costs (deductible, copays) associated with your treatment.

If you are having problems or concerns with insurance coverage and reimbursement, contact Patient Accounting at **651-265-1999**. We are available to answer your questions or refer you to the appropriate person.

We can answer financial questions related to:

- Understanding health insurance coverage
- Paying for prescriptions
- Claim denials
- Billing, coding and authorization questions
- Treatment pricing estimates

## **Financial assistance programs**

You may qualify for financial assistance programs through certain government or other nonprofit agencies. Our social workers can provide information about:

- MNSure—Minnesota's marketplace where individuals, families and small businesses can shop, compare and choose health insurance coverage that meets their needs
- MinnesotaCare
- Medical assistance
- Other county assistance programs

If you do not have health insurance, call Patient Accounting at **651-265-1999**. We can meet with you and help you determine what medical coverage you may qualify for.

HealthPartners recognizes the financial hardships health care needs can create. If you feel your income is not sufficient to pay for your services, our financial assistance program may be able to help. Assistance is based on your income and family size. You can get an application for financial assistance by contacting either of the following:

- Call **651-265-1999** for an application
- Visit **healthpartners.com** and type "financial assistance program" in the search box for more information.

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

- Social worker
- Patient accounting
- Doctor or nurse
- Pharmacist
- County health and human services agency

## Making payments to HealthPartners

We accept most major insurance plans. Visit [healthpartners.com](http://healthpartners.com) for a complete list. Your insurance company may or may not cover services provided here.

Call your health insurance company about your coverage and benefits for services at HealthPartners. Your insurance company can tell you if you need a referral, need to pay a deductible or have any other restrictions.

If you have health insurance, we will submit claims to your insurance company with your permission. You may receive a bill from HealthPartners after your insurance company has processed your claim or if you do not have insurance.

If you have health insurance, we will collect your copay each time you check in for service. A minimum fee, comparable to a copay, may be charged if you do not have insurance. You will be billed for any additional cost for each visit.

Payment can be made using 1 of the following methods:

- **Online payment.** To pay by credit or debit card, visit [healthpartners.com](http://healthpartners.com) and type "pay a bill" in the search box. Have your statement available for information you will need to complete the online payment process.
- **Payment by mail.** Send payment with check, money order or credit card information using standard postal mail to the address on your statement.

## Employment rights

Legally, you cannot 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 verifying your medical condition and making recommendations for reducing your workload.
- Ask your employer:
  - » If you can change your work schedule to work during the times you feel the best
  - » About training for a new job if you are unable to do your current job
  - » About disability benefits and recommendations for other options

For information about eligibility for disability payments, visit [ssa.gov](http://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**.

# Regions Hospital Foundation: Make good happen

A cancer diagnosis brings challenges that can be overwhelming, but they can also be beautiful and inspiring. These challenges are always life-changing. Often the care needed to adapt to and overcome these challenges goes far beyond any chemotherapy treatment plan or medical intervention. It requires the care of a patient's humanity. However, this vital integrative care is traditionally not covered by insurance.

By donating to Regions Hospital Foundation, you are helping give the holistic care needed to support patients and their families through both their physical and emotional journeys.

## **Give comfort to those in need**

Your gift and support will help us provide transformational care to those who need it most. Contributions support:

- The Patricia D. Lundborg Cancer Care Library and research-trained librarian
- Education to help individuals and their families understand and manage physical and emotional obstacles
- Resources, programs and support groups to share life-changing experiences
- Survivorship program to help individuals manage their physical and emotional needs as they complete cancer treatment
- Patient assistance

- Facility improvements for a better patient experience, including more comfortable chairs, activity items, therapeutic resources and healing art
- Complementary therapies, such as massage, music, pet and aromatherapy

## **Honor life and love**

Cancer knows no boundaries, and nearly all of us have been touched by it in some way. Regions Hospital Foundation offers you an opportunity to honor life and love by giving.

### **By check**

Regions Hospital Foundation  
640 Jackson Street, MS 11202C  
St. Paul, MN 55101

Please include a note to designate your gift to the Cancer Care Center.

### **Online**

Visit [RegionsHospital.com/give](http://RegionsHospital.com/give). Choose "Cancer Care Center" under "Specialities."

### **Other**

Contact us at **651-254-2376** or [rhf@healthpartners.com](mailto:rhf@healthpartners.com) if you wish to make a gift of stock, a gift through endowment or other types of gifts.

*All gifts are tax-deductible to the full extent allowed by law. Regions Hospital is a 501(c)3 nonprofit that raises funds for entities within the HealthPartners family of care.*

# Community Resources

A variety of organizations offer programs, support groups and other resources to help you during your cancer journey.

## Local resources

- **Angel Foundation**

612-627-9000

[mnangel.org](http://mnangel.org)

- » Limited financial support through 1-time grants for qualifying people with cancer
- » Educational support programs for the whole family when a parent is diagnosed with cancer

- **Cancer Legal Line**

651-917-9000

[cancerlegalline.org](http://cancerlegalline.org)

- » Provides pro bono (reduced or no fee) legal services to Minnesotans affected by cancer

- **First Call for Help**

651-291-0211

- » Area food shelves
- » Support for victims of domestic violence
- » Grocery shopping
- » Home-delivered meals
- » Housekeeping and yardwork
- » Transportation
- » Emergency financial assistance programs

- **Gilda's Club**

612-227-2147

[gildasclubtwincities.org](http://gildasclubtwincities.org)

10560 Wayzata Boulevard

Minnetonka, MN 55305

- » A free and welcoming "clubhouse" where everyone living with cancer can come for social, emotional and psychological support

- **Hope Chest for Breast Cancer**

952-471-8700

[hopechest.com](http://hopechest.com)

- » Provides emergency financial assistance for individuals with breast cancer

- **Leukemia and Lymphoma Society, Minnesota Chapter**

800-955-4572

[lls.org/mn](http://lls.org/mn)

- » Information about leukemia and lymphoma
- » 1-on-1 support
- » Limited financial assistance

- **Minnesota Day One Domestic Violence Crisis Line**

866-223-1111

- » Connects women to the nearest safe place with an available bed
- » Helps with filing a protection order

- **Open Arms of Minnesota**

612-872-1152

openarmsmn.org

- » Delivers free meals to meet nutrition needs for people living with life-threatening diseases

- **Pathways: Health Crisis Resource Center**

612-822-9061

pathwaysminneapolis.org

3115 Hennepin Avenue South

Minneapolis, MN 55408

- » Provides a place for exploring holistic health through free classes, special events and individual sessions

- **Senior Linkage Line**

800-333-2433

- » An information and referral service for Minnesota seniors

## **National resources**

- **4th Angel Patient and Caregiver Mentor Programs**

866-520-3197

4thangel.org

- » Provides 1-on-1 telephone support for patients and caregivers

- **American Cancer Society**

800-227-2345

- » Offers cancer information specialists to answer general questions about treatment, side effects and healthy living

- **Cancer Care**

800-813-HOPE (4673)

cancercare.org

- » Emotional and practical support, including online counseling, support groups, education, workshops, publications, community programs and financial assistance

- » Limited financial support through 1-time grants

- **CaringBridge**

651-452-7940

caringbridge.org

- » Provides a free, secure, personalized website that supports and connects loved ones during critical illness, treatment and recovery. You or a family member can write journal entries for family and friends to read. Loved ones can send messages of support in a guestbook.

- **Livestrong**

livestrong.org

855-220-7777

- » Provides online resources and 1-on-1 support

- **Reach to Recovery**

800-227-2345

- » An American Cancer Society program that helps women and men cope with breast cancer

## Transportation resources

- **Metro Mobility**

651-602-1111

- **Minnesota Non-Emergency  
Transportation (MNET)**

866-467-1724

» Provides transportation for people who receive Medical Assistance (MA) or General Assistance Medical Care (GAMC)

- **Road to Recovery**

800-227-2345

» A free American Cancer Society program that provides rides to treatment

- **Transit Link**

651-602-5465

# Online Resources

The following websites offer trustworthy and accurate information about cancer.

- **HealthPartners Cancer Care Centers**

[healthpartners.com/cancer](http://healthpartners.com/cancer)

- » View videos, read educational materials and more. Resources and information are available to help you along your journey.

- **HealthPartners Online Health Library**

[healthpartners.com/healthlibrary](http://healthpartners.com/healthlibrary)

- » Comprehensive coverage of health, wellness and medical-related topics
- » Treatment and drug information
- » Animations and videos
- » Nutrition and recipe information
- » Self-assessment tools, including healthy living calculators

- **American Cancer Society**

[cancer.org](http://cancer.org)

- » Types of cancer, patient services, treatment options and decision tools
- » Cancer drug database
- » 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](http://cancer.net)

- » Types of cancer
- » American Society of Clinical Oncology Patient Guides
- » Physical, emotional and social effects
- » Resources on managing relationships, caregiving, end-of-life care, grief and bereavement
- » Videos and podcasts
- » Anatomical and staging illustrations
- » Information also is available in Spanish

- **Chemocare**

[chemocare.com](http://chemocare.com)

- » Side effects of chemotherapy
- » Nutrition and chemotherapy
- » What to expect before and after treatment

- **MedlinePlus**

medlineplus.gov

- » 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
- » Comprehensive collection of cancer information, clinical trials and drug information
- » Illustrated medical dictionary and videos
- » Health news
- » Directories of doctors and hospitals
- » 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 telephone, live online chat and email
- » Information also is available in Spanish

- **National Center for Complementary and Alternative Medicine**

nccam.nih.gov/health

- » Fact sheets about herbs, botanicals and dietary and herbal supplements
- » Manipulative and body-based practices
- » Mind-body medicine
- » Movement therapies, traditional healers, energy medicine and whole medical systems
- » Safety and effectiveness of complementary and alternative treatments and therapies
- » Video, image and audio resources
- » 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
- » Health newsletters
- » Toll-free telephone 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



# Your Journey Forward: Survivorship

	<b>Page</b>
What Is Survivorship? _____	97
Emotional Experience After Treatment _____	98
Follow-Up Care _____	101
Understanding the Long-Term Side Effects of Cancer Treatment _____	102
Health and Wellness After Treatment _____	105
Finding Help and Support After Cancer Treatment _____	106

# Back of Tab

# What Is Survivorship?

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

Survivorship has 3 stages:

1. **Diagnosis and treatment.** Stage 1 of survivorship refers to living with cancer. This stage includes receiving your diagnosis and treatment for cancer.
2. **Immediately after treatment.** As soon as your treatment ends, you begin Stage 2 of survivorship—living through cancer. 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 Stage 3 of 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 is 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, nutritional and financial 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 are 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 also may have some unanticipated physical side effects and practical concerns.

Completing treatment and having less contact with your care team also can 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 do not understand the emotional issues with survivorship. They think survivors should feel happy.

## **Delayed reactions**

Once treatment is completed, you may realize you have 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, he or she 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 is not 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 help identify what makes you anxious.

### **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, controlling what you can and being active can often help survivors ease anxiety and uncertainty. The following suggestions may 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.

### **When treatment ends**

- Be gentle with yourself.
  - You are enough.
  - Feel whatever you feel. No feelings “should” or “should not” be felt.
  - Others may have expectations about how you “should” be feeling. Stick with what is true for you and find the support you need.
  - What you are scared of may not be true.
  - Fear may go away when it is named. Fear may grow if it is hidden or not talked about.
  - Give yourself time to heal, recover and respond. You have been through a lot.
  - Recovery has more than one right path.
  - Do not judge yourself or your reactions. If you are worried that you are depressed or having anxiety, talk to your doctor. Ask for help if you are not sure.
- 
- Express a wide range of both positive and negative emotions. Survivors who do this usually adjust well.
  - Write your thoughts and feelings down. Keeping a journal can provide a safe outlet for your emotions and help you sort through your thoughts and feelings.
  - Attend our survivorship classes. We strongly recommend the support and educational programs. Call **651-254-3978** for more information.

## **Medications**

After cancer treatment, you still may need to use medications for sleep or anxiety that started during treatment.

Also, people who had an episode of major depression at any time before cancer treatment are likely to have another episode now. If you experienced depression before cancer treatment, we recommend you see a psychiatrist to review your medications.

# Follow-Up Care

After you finish your cancer treatment, you will 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 if the cancer will return is impossible. For this reason, medical follow-up is important. Your follow-up care may include a survivorship visit and regularly scheduled appointments with your care team.

## **Types of doctors to see in follow-up care**

You will 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 are a cancer survivor.

# 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 your risk of long-term side effects. 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 managing 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. Short-term memory loss can occur 3 to 6 months after treatment is over and can be progressive. 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 1 activity at a time rather than multitasking. Avoid loud or overstimulating environments.

Further evaluation and treatment can help, such as medication or cognitive rehabilitation.

## **Thinking problems**

Thinking problems affect many people after chemotherapy ends. These thinking problems often are called *chemo brain*. Thinking problems may include attention span and memory.

Fortunately, chemo brain usually is a mild condition, improves with time and does not 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 is not 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, the care team can change medications. 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 Page 47) can result from chemotherapy. Long-term side effects include hearing loss, ringing in your ears and memory loss.

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 radiational therapy may cause infertility.

In women, 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 men, 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—Men can bank their sperm before beginning cancer treatment. For more information, contact:

» **Cryogenic Laboratories**

651-489-8000

[cryolab.com](http://cryolab.com)

- Ovarian tissue banking or egg and embryo banking—Women can bank their tissue before beginning cancer treatment. The banking process takes 4 to 6 weeks to complete.
- 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 resources provide additional information about cancer treatment and fertility:

- **Fertility Preservation Options**

[myoncofertility.org](http://myoncofertility.org)

- **Fertile Hope**

888-994-2354

### **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 also may 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 anywhere from shortly after cancer treatment to many years later. Pain typically is not 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. Medication cannot 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 are 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 are at a higher risk of 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. If you have cancer, a blood clot, heart failure or a skin infection, your lymphedema therapist may not recommend this option.
- **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 fit in 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 are important steps 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.
- Exercise and stay active for 150 minutes every week.
  - » Your oncologist may refer you to cancer rehabilitation services, which include physical therapy and occupational therapy (see Page 8).
- Try to achieve a healthy weight. Aim for a body mass index (BMI) of 18.5 to 25.
  - » BMI is a measure of obesity. Being as lean as possible without being underweight (more muscle mass than fat mass) is important for your health.
  - » A BMI of less than 23 is considered underweight for people 65 years and older.
- Limit alcohol to no more than 1 drink a day for women, 2 drinks a day for men.
- Eat at least 5 servings of fruits and vegetables every day (see Page 68).
  - » Your oncologist may refer you to meet with an oncology dietitian or registered dietitian (see Pages 9 and 67).
- Use sunscreen.

Making healthy habits part of your life can be difficult. Talk to your care team if you need additional help during this time.

# Finding Help and Support after Cancer Treatment

We are part of the HealthPartners family of care. Together, we offer many resources at different locations. Talk to your care team about other support services that may be available for you.

Resources available at HealthPartners include:

- Counseling and psychotherapy services
- Support groups
- Cancer rehabilitation
- Nutrition services
- Advance care planning—Make sure your family and doctors understand your wishes for your health.

Also see Pages 89 to 90 for community resources, including Pathways: Health Crisis Resource Center.

## **Your Care Guide for Living with Cancer (HealthPartners Cancer Care Center)**

© 2015 HealthPartners

All rights reserved. No parts of this publication may be reproduced in any manner, mechanical or electronic, without prior permission from the publisher except in brief quotations or summaries in articles or reviews. For additional permissions, contact HealthPartners Patient Education.

At the time of publication, all facts and figures cited herein are the most current available, all telephone numbers, addresses, website URLs are accurate and active; all publications, organizations, websites and other resources exist as described in this care guide; and all efforts have been made to verify them. HealthPartners Patient Education makes no warranty or guarantee concerning the information and materials given out by organizations or content found at websites cited herein, and we are not responsible for changes that occur after this book's publication. If you find an error or believe that a resource listed herein is not as described, please contact HealthPartners Patient Education.

### **HealthPartners Patient Education**

3800 Park Nicollet Boulevard  
St. Louis Park, MN 55416  
952-993-3454

