Chemotherapy and You

Support for people with cancer

MemorialCare™
Cancer Institute

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About this Book

Rather than read this book from beginning to end—look at only those sections you need now. Later, you can always read more.

Chemotherapy and You is written for you—someone who is about to receive or is now receiving chemotherapy for cancer. Your family, friends, and others close to you may also want to read this book.

This book is a guide you can refer to throughout your chemotherapy treatment. It includes facts about chemotherapy and its side effects and also highlights ways you can care for yourself before, during, and after treatment.

This book covers:

1. **Questions and answers about chemotherapy.**
   Answers common questions, such as what chemotherapy is and how it affects cancer cells.
2. **Side effects and ways to manage them.**
   Explains side effects and other problems that may result from chemotherapy. This section also has ways that you and your doctor or nurse can manage these side effects.
3. **Tips for meeting with your doctor or nurse.**
   Includes questions for you to think about and discuss with your doctor, nurse, and others involved in your cancer care.
4. **Ways to learn more.**
   Lists ways to get more information about chemotherapy and other topics discussed in this book—in print, online, and by telephone.

Talk with your doctor or nurse about what you can expect during chemotherapy. He or she may suggest that you read certain sections of this book or try some of the ways to manage side effects.

The Use of Product or Brand Names

Product or brand names that appear in this book are for example only. The U.S. Government does not endorse any specific product or brand. If products or brands are not mentioned, it does not mean or imply that they are not satisfactory.

Credits

National Cancer Institute
Chemotherapy and You was originally published by the National Cancer Institute.

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About your Care Team

Cancer Care Navigators

A diagnosis of cancer is a life-changing and often overwhelming process. Many patients describe the experience as a journey. MemorialCare cancer navigators help guide and support patients and their families throughout their journey, providing:

- Guidance and education throughout the diagnosis and treatment process
- Answers to their questions about their plan of care
- Care coordination by scheduling and expediting appointments, and collaborating with a multidisciplinary treatment team
- Resources and information, including financial, social services, nutrition, transportation and access to clinical trials
- The path to wellness is different for each person. Our navigators deliver a personalized approach. No matter the obstacle, we're here.

My navigator/nurse practitioner:

Name: ______________________________

Office Address: ______________________________

Office Phone: ______________________________

My oncologist:

Name: ______________________________

Office Address: ______________________________

Office Phone: ______________________________

Important Phone Numbers

Infusion Services

Long Beach Medical Center
Ambulatory Infusion Center
(562) 933-0628

Orange Coast Medical Center
The Zouras Family Infusion Center
(714) 378-7944

Saddleback Medical Center
The Jean Howard Infusion Center
(949) 452-7432

MemorialCare Cancer Institute
Ambulatory Infusion, Fountain Valley
(657) 241-9779

Radiation Therapy

Long Beach Medical Center
Thomas & Dorothy Leavey
Radiation Oncology Center
(562) 933-0300

Orange Coast Medical Center
Radiation Oncology Center
(714) 962-7100

Saddleback Medical Center
Damsker Family Pavilion
(949) 452-8880

Genetic Counseling

Long Beach Medical Center
(562) 933-7475

Orange Coast Medical Center
(949) 452-7201

Saddleback Medical Center
(949) 452-7201

Palliative Care

In the hospital:

Long Beach Medical Center
(562) 933-7158

Orange Coast Medical Center
(714) 378-7167

Saddleback Medical Center
(949) 452-7792

Outpatient clinic:

MemorialCare Medical Group
Long Beach (Los Altos)
(877) 696-3622

Home-Based: (949) 452-7000

Long Beach
(Todd Cancer Institute)
(562) 933-1877

Fountain Valley
(877) 696-3622

Rehabilitation Services

Long Beach Medical Center
(562) 933-9570)

Orange Coast Medical Center
(714) 378-5096

Saddleback Medical Center
(949) 452-7040

Nutrition Services

Long Beach Medical Center
(562) 933-1877

Orange Coast Medical Center
(714) 378-7900

Saddleback Medical Center
(949) 452-7873

Social Work

Long Beach Medical Center
(562) 933-2833

Orange Coast Medical Center
(714) 378-7146

Saddleback Medical Center
(949) 607-7090

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Questions and Answers about Chemotherapy

What is chemotherapy?

Chemotherapy (also called chemo) is a type of cancer treatment that uses drugs to destroy cancer cells.

How does chemotherapy work?

Chemotherapy works by stopping or slowing the growth of cancer cells, which grow and divide quickly. But it can also harm healthy cells that divide quickly, such as those that line your mouth and intestines or cause your hair to grow. Damage to healthy cells may cause side effects. Often, side effects get better or go away after chemotherapy is over.

What does chemotherapy do?

Depending on your type of cancer and how advanced it is, chemotherapy can:

Cure Cancer

When chemotherapy destroys cancer cells to the point that your doctor can no longer detect them in your body and they will not grow back.

Control Cancer

When chemotherapy keeps cancer from spreading, slows its growth, or destroys cancer cells that have spread to other parts of your body.

Ease Cancer Symptoms (also called palliative care)

When chemotherapy shrinks tumors that are causing pain or pressure.

How is chemotherapy used?

Sometimes, chemotherapy is used as the only cancer treatment. But more often, you will get chemotherapy along with surgery, radiation therapy, targeted therapy, or immunotherapy. Chemotherapy can:

- Make a tumor smaller before surgery or radiation therapy. This is called neo-adjuvant chemotherapy.
- Destroy cancer cells that may remain after surgery or radiation therapy. This is called adjuvant chemotherapy.
- Help radiation therapy and immunotherapy work better.
- Destroy cancer cells that have come back (recurrent cancer) or spread to other parts of your body (metastatic cancer).

How does my doctor decide which chemotherapy drugs to use?

This choice depends on:

- The type of cancer you have. Some types of chemotherapy drugs are used for many types of cancer. Other drugs are used for just one or two types of cancer.
- Whether you have had chemotherapy before.
- Whether you have other health problems, such as diabetes or heart disease.

Where do I go for chemotherapy?

You may receive chemotherapy during a hospital stay, at home, or in a doctor's office, clinic, or outpatient unit in a hospital (which means you do not stay overnight). No matter where you go for chemotherapy, your doctor and nurse will watch for side effects and make any needed drug changes.

Home Safety after Chemotherapy Treatments

After receiving chemotherapy, you and your caregivers need to take special care to prevent contact with your body fluids. These fluids include urine, stools, sweat, mucus, blood, vomit, and those from sex. Your doctor or nurse will suggest home safety measures that you and your caregivers should follow, such as:

- Closing the lid and flush twice after using the toilet.
- Sitting on the toilet to urinate, if you are male.
- Washing your hands with soap and water after using the restroom.
- Cleaning splashes from the toilet with bleach wipes.
- Using gloves when handling body fluids and washing your hands after removing the gloves.
- Wearing disposable pads or diapers if incontinence is an issue and wearing gloves when handling.
- Washing linens soiled with body fluids separately.
- Using condoms during sex

The length of time that you and your caregivers need to follow these guidelines might differ depending on the policy where you receive treatment and the drugs that you receive. Your doctor or nurse will tell you how long you and your caregivers need to practice these safety measures.

How often will I receive chemotherapy?

Treatment schedules for chemotherapy vary widely. How often and how long you get chemotherapy depends on:

- Your type of cancer and how advanced it is
- The goals of treatment (whether chemotherapy is used to cure your cancer, control its growth, or ease the symptoms)
- The type of chemotherapy
- How your body reacts to chemotherapy

You may receive chemotherapy in cycles. A cycle is a period of chemotherapy treatment followed by a period of rest. For instance, you might receive one week of chemotherapy followed by three weeks of rest. These four weeks make up one cycle. The rest period gives your body a chance to build new healthy cells.

Can I miss a dose of chemotherapy?

It is not recommended to skip a chemotherapy treatment. But sometimes your doctor or nurse may change your chemotherapy schedule due to side effects you are having. If your schedule changes, your doctor or nurse will explain what to do and when to start treatment again.

How is chemotherapy given?

Chemotherapy may be given in many ways.

- **Injection**
  The chemotherapy is given by a shot in a muscle in your arm, thigh, or hip, or right under the skin in the fatty part of your arm, leg, or belly.
- **Intra-arterial (IA)**
  The chemotherapy goes directly into the artery that is feeding the cancer.
- **Intraperitoneal (IP)**
  The chemotherapy goes directly into the peritoneal cavity (the area that contains organs such as your intestines, stomach, liver, and ovaries).
- **Intravenous (IV)**
  The chemotherapy goes directly into a vein.
- **Topical**
  The chemotherapy comes in a cream that you rub onto your skin.
- **Oral**
  The chemotherapy comes in pills, capsules, or liquids that you swallow.
- **Intravesicular**
  The chemotherapy goes directly into the bladder.
- **Intrathecal**
  The chemotherapy goes into the spinal canal to reach the brain.

Things to Know about Getting Chemotherapy through an IV

Chemotherapy is often given through a thin needle that is placed in a vein on your hand or lower arm. Your nurse will put the needle in at the start of each treatment and remove it when treatment is over. Let your doctor or nurse know right away if you feel pain or burning while you are getting IV chemotherapy.

IV chemotherapy is often given through catheters or ports, sometimes with the help of a pump.

- **Catheters**
  A catheter is a soft, thin tube that goes into your vein. A part of the catheter stays outside your body. Most catheters stay in place until all your chemotherapy treatments are done. Catheters can also be used for drugs other than chemotherapy and to draw blood. Be sure to watch for signs of infection around your catheter. For more information on Infection, see page 31.

- **Ports**
  A port is a small, round disc made of plastic or metal that is placed under your skin. A catheter connects the port to a large vein, most often in your chest. Your nurse can insert a needle into your port to give you chemotherapy or draw blood. This needle can be left in place for chemotherapy treatments that are given for more than 1 day. Be sure to watch for signs of infection around your port. For more information on Infection, see page 31.

- **Pumps**
  Pumps are often attached to catheters or ports. They control how much and how fast chemotherapy goes into a catheter or port. Pumps can be internal or external. External pumps remain outside your body. Most people can carry these pumps with them. Internal pumps are placed under your skin during surgery.

How will I feel during chemotherapy?

Chemotherapy affects people in different ways. How you feel depends on your type of cancer, how advanced it is, the kind of chemotherapy you are getting, and the dose. Doctors and nurses cannot know for certain how you will feel during chemotherapy.

There are many ways to manage chemotherapy side effects. For more information, see the **List of Side Effects** section starting on page 19.

Can I work during chemotherapy?

Many people can work during chemotherapy, as long as they match their schedule to how they feel. Whether or not you can work may depend on what kind of work you do. If your job allows, you may want to see if you can work part-time or work from home on days you do not feel well.

Many employers are required by law to change your work schedule to meet your needs during cancer treatment. Talk with your employer about ways to adjust your work during chemotherapy. You can learn more about these laws by talking with a social worker.

Can I take over-the-counter and prescription drugs while I get chemotherapy?

This depends on the type of chemotherapy you get and the other types of drugs you plan to take. Take only drugs that are approved by your doctor or nurse. Tell your doctor or nurse about all the over-the-counter and prescription drugs you take, including laxatives, allergy medicines, cold medicines, pain relievers, aspirin, and ibuprofen.

One way to let your doctor or nurse know about these drugs is by bringing in all your pill bottles. Your doctor or nurse needs to know:

- The name of each drug
- The reason you take it
- How much you take
- How your body reacts to chemotherapy

Can I take minerals, dietary supplements, or herbs while I get chemotherapy?

Some of these products can change how chemotherapy works. For this reason, it is important to tell your doctor or nurse about all the vitamins, minerals, dietary supplements, and herbs that you take before you start chemotherapy. During chemotherapy, talk with your doctor before you take any of these products.

Talk to your doctor or nurse before you take any over-the-counter or prescription drugs, vitamins, minerals, dietary supplements, or herbs.

How will I know if chemotherapy is working?

Your doctor will perform physical exams and other medical tests (such as blood tests and scans). He or she will also ask you how you feel.

You cannot tell if chemotherapy is working based on its side effects. Some people think that severe side effects mean that chemotherapy is working well, or that no side effects mean that chemotherapy is not working. The truth is that side effects have nothing to do with how well chemotherapy is fighting your cancer.

How much does chemotherapy cost?

It is hard to say how much chemotherapy will cost. It depends on:

- The types and doses of chemotherapy used
- How long and how often chemotherapy is given
- Whether you get chemotherapy at home, in a clinic or office, or during a hospital stay
- The part of the country where you live
- Your insurance carrier

Does my health insurance pay for chemotherapy?

Talk with your health insurance company about what costs it will pay for. Questions to ask include:

- What will my insurance pay for?
- Do I need to call my insurance company before each treatment for it to be covered? Or, does my doctor's office need to call?
- What do I have to pay for?
- Can I see any doctor I want or do I need to choose from a list of preferred providers?
- Do I need a written referral to see a specialist?
- Is there a co-pay (money I have to pay) each time I have an appointment?
- Is there a deductible (certain amount I need to pay) before my insurance pays?
- Where should I get my prescription drugs?
- Does my insurance pay for all my tests and treatments, whether I am an inpatient or outpatient?

How can I work with my insurance plan?

- Read your insurance policy before treatment starts to find out what your plan will and will not pay for.
- Keep records of all your treatment costs and insurance claims.
- Send your insurance company all the paperwork it asks for. This may include receipts from doctors' visits, prescriptions, and lab work. Be sure to also keep copies for your own records.
- As needed, ask for help with the insurance paperwork. You can ask a friend, family member, social worker, or local group such as a senior center.
- If your insurance does not pay for something you think it should, find out why the plan refused to pay. Then talk with your doctor or nurse about what to do next. He or she may suggest ways to appeal the decision or other actions to take.

Questions and Answers about Immunotherapy

How does immunotherapy work against cancer?

As part of the function of the body, the immune system finds and destroys abnormal cells and most likely prevents the growth of many cancers. Sometimes, immune cells are found in and around tumors. These cells are a sign that the immune system is responding to the tumor. People whose tumors contain these cells often do better than people whose tumors don't contain them.

Even though the immune system can prevent or slow cancer growth, cancer cells have ways to survive even with our immune systems. For example, cancer cells may:

- Have genetic changes that make them invisible to the immune system.
- Have proteins on their surface that turn off immune cells.
- Change the normal cells around the tumor so they interfere with how the immune system responds to the cancer cells.

Immunotherapy helps the immune system to better act against cancer.

What are the types of immunotherapy?

Several types of immunotherapy are used to treat cancer. These include:

- **Immune checkpoint inhibitors**, which are drugs that block immune checkpoints. These checkpoints are a normal part of the immune system and keep immune responses from being too strong. By blocking them, these drugs allow immune cells to respond more strongly to cancer.
- **T-cell transfer therapy**, which is a treatment that boosts the natural ability of your T cells (a specific type of immune cell) to fight cancer. In this treatment, immune cells are taken from your tumor. Those that are most active against your cancer are selected or changed in the lab to better attack your cancer cells, grown in large batches, and put back into your body through a needle in a vein.

  T-cell transfer therapy may also be called adoptive cell therapy, adoptive immunotherapy, or immune cell therapy. In this way, your own cells combat cancer.
- **Monoclonal antibodies or therapeutic antibodies** are created in the lab that are designed to attach to specific targets on cancer cells. Some monoclonal antibodies mark cancer cells so that they will be better seen and destroyed by the immune system. Such monoclonal antibodies are a type of immunotherapy.
- **Treatment vaccines**, which work against cancer by boosting your immune system's response to cancer cells. Treatment vaccines are different from the ones that help prevent disease.
- **Immune system modulators**, improve the body's immune response against cancer. Some of these affect specific parts of the immune system, whereas others affect the immune system in a more general way.

Which cancers are treated with immunotherapy?

Immunotherapy drugs have been approved to treat many types of cancer. However, surgery, chemotherapy, or radiation therapy is still used most of the time. Your physician will be able to tell you if immunotherapy is a good treatment option for you.

What are the side effects of immunotherapy?

Immunotherapy can cause **side effects**, many of which happen when the immune system that has been revved-up to act against the cancer also acts against healthy cells and tissues in your body. You will have frequent check-ups to look for these symptoms.

Different people have different side effects. The ones you have and how they make you feel will depend on:

- How healthy you are before treatment
- Your type of cancer
- How advanced your cancer is
- The type and dose of immunotherapy you are getting

You might be on immunotherapy for a long time. And side effects can occur at any point during and after treatment. Doctors and nurses cannot know for certain when or if side effects will occur or how serious they will be. So, it is important to talk with your doctors and nurses about what signs to look for and what to do if you start to have problems.

Some side effects are common with all types of immunotherapy. For instance, you might have skin reactions at the needle site.

Investigating Cancer Immunotherapy Side Effects

Researchers aim to better understand, manage the side effects of these new drugs.

- pain
- swelling
- soreness
- redness
- itchiness
- rash

You may have flu-like symptoms, which include:

- fever
- chills
- weakness
- dizziness
- nausea or vomiting

Other side effects might include:

- swelling and weight gain from retaining fluid
- heart palpitations
- sinus congestion
- diarrhea
- infection
- organ inflammation

Some types of immunotherapy may cause severe or fatal allergic and inflammation-related reactions. But, these reactions are rare.

How is immunotherapy given?

Different forms of immunotherapy may be given in different ways. These include:

- **Intravenous (IV)**
  The immunotherapy goes directly into a vein.
- **Oral**
  The immunotherapy comes in pills or capsules that you swallow.
- **Topical**
  The immunotherapy comes in a cream that you rub onto your skin. This type of immunotherapy can be used for very early skin cancer.
- **Intravesical**
  The immunotherapy goes directly into the bladder through a small tube.

Where do you go for immunotherapy?

You may receive immunotherapy in a doctor's office, clinic, or outpatient unit in a hospital. Outpatient means you do not spend the night in the hospital.

How often do you receive immunotherapy?

How often and how long you receive immunotherapy depends on:

- Your type of cancer and how advanced it is
- The type of immunotherapy you get
- How your body reacts to treatment

You may have treatment every day, week, or month. Some types of immunotherapy can be given in cycles. A cycle is a period of treatment followed by a period of rest. The rest period gives your body a chance to recover, respond to immunotherapy, and build new healthy cells.

How can you tell if immunotherapy is working?

You will see your doctor often. He or she will perform physical exams and ask you how you feel. You will have medical tests, such as blood tests and different types of scans. These tests will measure the size of your tumor and look for changes in your blood work.

What is the current research in immunotherapy?

Researchers are focusing on several major areas to improve immunotherapy, including:

- **Finding solutions for resistance.**
  Researchers are testing combinations of immune checkpoint inhibitors and other types of immunotherapy, targeted therapy, and radiation therapy to overcome resistance to immunotherapy. Resistance makes medications not work to treat your cancer.
- **Finding ways to predict responses to immunotherapy.**
  Only a small portion of people who receive immunotherapy will respond to the treatment. Finding ways to predict which people will respond to treatment the best is a major area of research.
- **Learning more about how cancer cells hide from the immune system.**
  A better understanding of how cancer cells get around the immune system could lead to the development of new drugs that block those processes.

What Is Targeted Therapy?

Targeted therapy is a type of cancer treatment that targets the way cancer cells grow, divide, and spread. This is called "precision medicine". As researchers learn more about the DNA changes and proteins that drive cancer, they are better able to design treatments that target these proteins.

What are the types of targeted therapy?

Most targeted therapies are either small-molecule drugs or monoclonal antibodies.

- **Small-molecule drugs**
  are small enough to enter cells easily, so they are used for targets that are inside cells.
- **Monoclonal antibodies**
  also known as therapeutic antibodies, are proteins produced in the lab. These proteins are designed to attach to specific targets found on cancer cells. Some monoclonal antibodies mark cancer cells so that they will be better seen and destroyed by the immune system. Other monoclonal antibodies directly stop cancer cells from growing or cause them to self-destruct. Still others carry toxins to cancer cells.

Who is treated with targeted therapy?

Targeted therapy is approved to treat many types of cancer. Your tumor will need to be tested to see if it contains targets for which targeted therapy can be used. In this way, the drug can be designed to fight your cancer.

Testing your cancer for targets that could help choose your treatment is called biomarker testing.

You may need to have a biopsy for biomarker testing.

A biopsy is a procedure in which your doctor removes a piece of the tumor for testing. There are some risks to having a biopsy to include bleeding or injuring another part of the body with the needle. These risks vary depending on the size of the tumor and where it is located. Your doctor will explain the risks of having a biopsy for your type of tumor.

How does targeted therapy work against cancer?

Most types of targeted therapy help treat cancer by blocking proteins that help tumors grow and spread throughout the body. This is different from chemotherapy, which often kills **all** cells that grow and divide quickly. The following explains the different ways that targeted therapy treats cancer.

- **Help the immune system destroy cancer cells.**
  One reason that cancer cells thrive is because they can hide from your immune system. Certain targeted therapies can mark cancer cells almost like a flag so it is easier for the immune system to find and destroy them. Other targeted therapies help boost your immune system to work better against cancer.

- **Stop cancer cells from growing by interrupting signals that cause them to grow and divide without order.**
  Healthy cells in your body usually divide to make new cells only when they receive strong signals to do so. These signals tell the cells to divide. This process helps new cells form only as your body needs them. But, some cancer cells have changes that tell them to divide whether or not signals are present. Some targeted therapies interfere with this cell growth preventing them from telling the cells to divide. This process helps slow cancer's uncontrolled growth.
- **Stop signals that help form blood vessels.**
  To grow beyond a certain size, tumors need to form new blood vessels to feed the tumor. The tumor sends signals that start this vessel growth. Some targeted therapies interfere with these signals to prevent a blood supply from forming. Without a blood supply, tumors stay small. Or, if a tumor already has a blood supply, these treatments can cause blood vessels to die, which causes the tumor to shrink. Learn more about these medications are called angiogenesis inhibitors.
- **Deliver cell-killing substances to cancer cells.**
  Some monoclonal antibodies are combined with cell-killing substances such as toxins, chemotherapy drugs, or radiation. Once these monoclonal antibodies attach to targets on the surface of cancer cells, the cells take up the cell-killing substances, causing them to die. Cells that don't have the target will not be harmed.
- **Cause cancer cell death.**
  Healthy cells die in an orderly manner when they become damaged or are no longer needed. But, cancer cells have ways of avoiding this dying process. Some targeted therapies can cause cancer cells to go through this process of cell death.
- **Starve cancer of hormones it needs to grow.**
  Some breast and prostate cancers require certain hormones to grow. Hormone therapies are a type of targeted therapy that can work in two ways. Some hormone therapies prevent your body from making specific hormones. Others prevent the hormones from acting on your cells, including cancer cells.

What can I expect when having targeted therapy?

How is targeted therapy given?

Small-molecule drugs are pills or capsules that you can swallow. Monoclonal antibodies are usually given through a needle in a blood vein.

Where do I go for targeted therapy?

Where you go for treatment depends on which drugs you are getting and how they are given. You may take targeted therapy at home. Or you may receive targeted therapy in a doctor's office, clinic, or outpatient unit in a hospital. Outpatient means you do not spend the night in the hospital.

How often will I receive targeted therapy?

How often and how long you receive targeted therapy depends on:

- your type of cancer and how advanced it is
- the type of targeted therapy
- how your body reacts to treatment

You may have treatment every day, every week, or every month. Some targeted therapies are given in cycles. A cycle is a period of treatment followed by a period of rest. The rest period gives your body a chance to recover and build new healthy cells.

How will targeted therapy affect me?

Targeted therapy affects people in different ways. How you feel depends on how healthy you are before treatment, your type of cancer, how advanced it is, the kind of targeted therapy you are getting, and the dose. Doctors and nurses cannot know for certain how you will feel during treatment.

How will I know whether targeted therapy is working?

While you are receiving targeted therapy, you will see your doctor often. He or she will perform physical exams and ask you how you feel. You will have medical tests, such as blood tests, x-rays, and different types of scans. These regular visits and tests will help the doctor know whether the treatment is working.

Where can I find out about clinical trials of targeted therapy?

Clinical trials of targeted therapy and other cancer treatments take place in cities and towns across the United States and throughout the world. They take place in doctors' offices, cancer centers, medical centers, community hospitals and clinics, and veteran and military hospitals. Ask your doctor if you qualify for a clinical trial or wish to be included in clinical trials for your cancer diagnosis.

Tips for Meeting with Your Doctor or Nurse

Make a list of your questions before each appointment.

Some people keep a “running list” and write down new questions as they think of them. Make sure to have space on this list to write down the answers from your doctor or nurse.

Bring a family member or trusted friend to your medical visits.

This person can help you understand what the doctor or nurse says and talk with you about it after the visit is over.

Ask all your questions.

There is no such thing as a stupid question. If you do not understand an answer, keep asking until you do.

Take notes.

You can write them down or use a tape recorder, with your physician’s consent.. Later, you can review your notes and remember what was said.

Ask for printed information about your type of cancer and chemotherapy.

Let your doctor or nurse know how much information you want to know, when you want to learn it, and when you have learned enough.

Some people want to learn everything they can about cancer and its treatment. Others only want a little information. The choice is yours.

Find out how to contact your doctor or nurse in an emergency.

This includes who to call and where to go. Write important phone numbers in the space provided on page 52.

Questions to Ask

About My Cancer

What kind of cancer do I have? ____________________

What is the stage of my cancer? ____________________

About Treatment with Chemotherapy

Why do I need chemotherapy? ____________________

What is the goal of this chemotherapy? ____________________

What are the benefits of chemotherapy? ____________________

What are the risks of chemotherapy? ____________________

How many cycles of chemotherapy will I get? ____________________

How long between treatments? ____________________

What types of chemotherapy will I get? ____________________

How will these drugs be given? ____________________

Where do I go for this treatment? ____________________

How long does each treatment last? ____________________

Other Questions about Treatment

Are there other ways to treat my type of cancer? ____________________

What is the standard care for my type of cancer? ____________________

Are there any clinical trials for my type of cancer? ____________________

Should someone drive me to and from treatments? ____________________

About Side Effects

What side effects can I expect right away? ____________________

What side effects can I expect later? ____________________

How serious are these side effects? ____________________

How long will these side effects last? ____________________

Will all the side effects go away when treatment is over? ____________________

What can I do to manage or ease these side effects? ____________________

What can my doctor or nurse do to manage or ease side effects? ____________________

When should I call my doctor or nurse about these side effects? ____________________

Your Feelings during Chemotherapy

At some point during chemotherapy, you may feel:

- Frustrated
- Helpless
- Lonely
- Anxious
- Depressed
- Afraid
- Angry

It is normal to have a wide range of feelings while going through chemotherapy. After all, living with cancer and going through treatment can be stressful. You may also feel fatigue, which can make it harder to cope with your feelings.

How can I cope with my feelings during chemotherapy?

Relax. Find some quiet time and think of yourself in a favorite place. Breathe slowly or listen to soothing music. This may help you feel calmer and less stressed.

Exercise. Many people find that light exercise helps them feel better. There are many ways for you to exercise, such as walking, riding a bike, and doing yoga. Talk with your doctor or nurse about ways you can exercise.

Talk with others. Talk about your feelings with someone you trust. Choose someone who can focus on you, such as a close friend, family member, chaplain, nurse, or social worker. You may also find it helpful to talk with someone else who is going through chemotherapy.

Join a support group. Cancer support groups provide support for people with cancer. These groups allow you to meet others with the same problems. You will have a chance to talk about your feelings and listen to other people talk about theirs. You can find out how others cope with cancer, chemotherapy, and side effects.

Talk to your doctor or nurse about things that worry or upset you. You may want to ask about seeing a counselor. Your doctor may also suggest that you take medication if you find it very hard to cope with your feelings.

Get in touch with MemorialCare Social Work Services. A diagnosis of cancer is a life-changing and often overwhelming process. Many patients describe the experience as a journey. MemorialCare cancer navigators help guide and support patients and their families throughout their journey, providing:

- Guidance and education throughout the diagnosis and treatment process
- Answers to their questions about their plan of care
- Care coordination by scheduling and expediting appointments, and collaborating with a multidisciplinary treatment team
- Resources and information, including financial, social services, nutrition, transportation and access to clinical trials
- The path to wellness is different for each person. Our navigators deliver a personalized approach. No matter the obstacle, we're here.

MemorialCare Supportive Services

A diagnosis of cancer can be overwhelming and frightening. The first concern for an individual is their physical well-being. But psychosocial and spiritual health are also important and are integrated into each patient's treatment plan at MemorialCare.

Our psychosocial support care team focuses on resolving multiple aspects of distress, as well as practical issues of treatment and lifestyle. Psychosocial oncology support helps patients improve their quality of life by re-framing their way of thinking. Research has shown that cancer patients who can "re-frame" their thinking can dramatically improve their quality of life, decrease anxiety, stress reduction, improve sleep, reduce pain, fatigue, and other symptoms.

Our support programs are designed to teach patients and their families' skills to cope with a cancer diagnosis.

We offer a variety of services to help you cope with your feelings during chemotherapy, including:

- Individual therapy with licensed social workers
- Smoking cessation classes
- Spiritual care
- Support groups
- Weekly walking group
- Writing workshops
- Yoga classes

For more information on supportive services or to schedule, call (888) 636-5864 or visit our website:

For Long Beach Medical Center, visit **memorialcare.org/LBsurvivorship**.

For Orange Coast Medical Center, visit **memorialcare.org/OCsurvivorship**.

For Saddleback Medical Center, visit **memorialcare.org/SBsurvivorship**.

Cancer Care & Peer Navigators at MemorialCare

MemorialCare cancer care navigators and peer navigators help guide and support you and your family throughout your journey, providing guidance and education throughout the diagnosis and treatment process, answers to questions about your plan of care, and care coordination with your treatment teams.

To get in touch with a cancer care navigator, visit: **memorialcare.org/cancernavigator**

Peer Navigator Programs

The Angels Navigator Program for breast cancer patients

(657) 241-9825

Women Guiding Women: Cancer Support & Education™ for breast and gynecologic cancers

(562) 933-7815

Side Effects

What are side effects?

Side effects are problems caused by cancer treatment. Some common side effects from chemotherapy are fatigue, nausea, vomiting, decreased blood cell counts, hair loss, mouth sores, and pain.

What causes side effects?

Chemotherapy is designed to kill fast-growing cancer cells. But it can also affect healthy cells that grow quickly. These include cells that line your mouth and intestines, cells in your bone marrow that make blood cells, and cells that make your hair grow. Chemotherapy causes side effects when it harms these healthy cells.

Will I get side effects from chemotherapy?

You may have a lot of side effects, some, or none at all. This depends on the type and amount of chemotherapy you get and how your body reacts. Before you start chemotherapy, talk with your doctor or nurse about which side effects to expect.

How long do side effects last?

How long side effects last depends on your health and the kind of chemotherapy you get. Most side effects go away after chemotherapy is over. But sometimes it can take months or even years for them to go away.

Sometimes, chemotherapy causes long-term side effects that do not go away. These may include damage to your heart, lungs, nerves, kidneys, or reproductive organs. Some types of chemotherapy may cause a second cancer years later. Ask your doctor or nurse about your chance of having long-term side effects.

What can be done about side effects?

Doctors have many ways to prevent or treat chemotherapy side effects and help you heal after each treatment session. Talk with your doctor or nurse about which ones to expect and what to do about them. Make sure to let your doctor or nurse know about any changes you notice—they may be signs of a side effect. The chart on the next page tells you where in this book to look for more information about specific side effects.

List of Side Effects

Below is a list of side effects that chemotherapy may cause.

Not everyone gets every side effect. Which ones you have will depend on the type and dose of your chemotherapy and whether you have other health problems, such as diabetes or heart disease.

Talk with your doctor or nurse about the side effects on this list. Ask which ones may affect you. Mark the ones you may get and go to the pages listed to learn more.

You may have a lot of side effects, some, or none at all.

- **Anemia**, see page 20
- **Appetite Changes**, see page 21
- **Bleeding**, see page 22
- **Constipation**, see page 24
- **Diarrhea**, see page 25
- **Eye Changes**, see page 45
- **Fatigue**, see page 27
- **Flu-like symptoms**, see page 45
- **Fluid retention**, see page 45
- **Hair Loss and Hair Preservation**, see page 29
- **Infection**, see page 31
- **Infertility**, see page 33
- **Mouth and Throat Changes**, see page 34
- **Nausea and Vomiting**, see page 36
- **Nervous System Changes**, see page 38
- **Pain**, see page 39
- **Sexual Changes**, see page 40
- **Skin and Nail Changes**, see page 42
- **Urinary, Kidney, or Bladder Changes**, see page 44

Anemia

What It Is and Why It Occurs

Red blood cells carry oxygen throughout your body. Anemia is when you have too few red blood cells to carry the oxygen your body needs. Your heart works harder when your body does not get enough oxygen. This can make it feel like your heart is pounding or beating very fast. Anemia can also make you feel short of breath, weak, dizzy, faint, or very tired.

Some types of chemotherapy cause anemia because they make it harder for bone marrow to produce new red blood cells.

When you get up from lying down, sit for a moment before you stand.

Ways to Manage

Get plenty of rest. Try to sleep at least 8 hours each night. You might also want to take 1 to 2 short naps (1 hour or less) during the day.

Prioritize your activities. This means doing only the activities that are most important to you. For example, you might go to work but not clean the house. Or you might order take-out food instead of cooking dinner.

Accept help. When your family or friends offer to help, let them. They can help care for your children, pick up groceries, run errands, drive you to doctor's visits, or do other chores you feel too tired to do.

Eat a well-balanced diet. Choose a healthy diet that contains all the calories and protein your body needs. Calories will help keep your weight up, and extra protein can help repair tissues that have been harmed by cancer treatment. Talk to your doctor, nurse, or dietitian about the diet that is right for you. (To learn more, see Appetite Changes on page 21.)

Stand up slowly. You may feel dizzy if you stand up too fast. When you get up from lying down, sit for a minute before you stand.

Your doctor or nurse will check your blood cell count throughout your chemotherapy. You may need a blood transfusion if your red blood cell count falls too low. Your doctor may also prescribe a medicine to boost (speed up) the growth of red blood cells or suggest that you take iron or other vitamins.

Call your doctor or nurse if:

- Your level of fatigue changes or you are not able to do your usual activities.
- You feel dizzy or like you are going to faint.
- You feel short of breath.
- It feels like your heart is pounding or beating very fast.

For more information on how to manage **Fatigue** that may be caused by anemia, see page 27.

Appetite Changes

What They Are and Why They Occur

Chemotherapy can cause appetite changes. You may lose your appetite because of nausea (feeling sick to your stomach), mouth and throat problems that make it painful to eat, or drugs that cause you to lose your taste for food. Appetite changes can also come from feeling depressed or tired. This problem may last for a day, a few weeks, or even months.

It is important to eat well, even when you have no appetite. This means eating and drinking foods that have plenty of protein, vitamins, and calories. Eating well helps your body fight infection and repair tissues that are damaged by chemotherapy. Not eating well can lead to weight loss, weakness, and fatigue.

Some cancer treatments cause weight gain or an increase in your appetite. Be sure to ask your doctor, nurse, or dietitian what types of appetite changes you might expect and how to manage them.

Ways to Manage

Eat five to six small meals or snacks each day instead of three big meals. Many people find it easier to eat smaller amounts more often. Choose foods and drinks that are **High in Calories and Protein**. See pages 47-48 for a list of these foods.

Set a daily schedule for eating your meals and snacks. Eat when it is time to eat, rather than when you feel hungry. You may not feel hungry while you are on chemotherapy, but you still need to eat.

Drink milkshakes, smoothies, juice, or soup if you do not feel like eating solid foods. Liquids like these can help provide the protein, vitamins, and calories your body needs. See pages 46-47 for a list of **Liquid Foods**.

Use plastic forks and spoons. Some types of chemotherapy give you a metal taste in your mouth. Eating with plastic can help decrease the metal taste. Cooking in glass pots and pans can also help.

Increase your appetite by doing something active. For instance, you might have more of an appetite if you take a short walk before lunch. Also, be careful not to decrease your appetite by drinking too much liquid before or during meals.

Change your routine. Eat in a different place, such as the dining room rather than the kitchen. Or, eat with other people instead of eating alone. If you eat alone, you may want to listen to the radio or watch TV. You may also want to vary your diet by trying new foods and recipes.

Talk with your doctor, nurse, or dietitian. He or she may want you to take extra vitamins or nutrition supplements (such as high protein drinks). If you cannot eat for a long time and are losing weight, you may need to take drugs that increase your appetite or receive nutrition through an IV or feeding tube.

Pages 46-51 provide lists of different foods to help with appetite changes and side effects for making eating easier.

Nutrition Services at MemorialCare

Long Beach Medical Center	(562) 933-1877
Orange Coast Medical Center	(714) 378-7900
Saddleback Medical Center	(949) 452-7873

Bleeding

What It Is and Why It Occurs

Platelets are cells that make your blood clot when you bleed. Chemotherapy can lower the number of platelets because it affects your bone marrow's ability to make them. A low platelet count is called thrombocytopenia. This condition may cause bruises even when you have not been hit or have not bumped into anything, bleeding from your nose or in your mouth, or a rash of tiny, red dots.

Ways to Manage

Do:

- Brush your teeth with a very soft toothbrush.
- Soften the bristles of your toothbrush by running hot water over them before you brush.
- Use a water flosser to clean your gums and between your teeth.
- Blow your nose gently.
- Be careful when using scissors, knives, or other sharp objects.
- Use an electric shaver instead of a razor.
- Apply gentle but firm pressure to any cuts you get until the bleeding stops.
- Wear shoes all the time, even inside the house or hospital.

Do Not:

- Use dental floss or toothpicks.
- Play sports or do other activities during which you could get hurt.
- Use tampons, enemas, suppositories, or rectal thermometers.
- Wear clothes with tight collars, wrists, or waistbands.

Check with your doctor or nurse before:

- Drinking alcoholic beverages.
- Having sex.
- Taking vitamins, herbs, minerals, dietary supplements, aspirin, or other over-the-counter medicines. Some of these products can change how chemotherapy works.

Check with your doctor or nurse before taking any vitamins, herbs, minerals, dietary supplements, aspirin, or other over-the-counter medicines.

Let your doctor know if you are constipated.

He or she may prescribe a stool softener to prevent straining and rectal bleeding when you go to the bathroom. For more information on **Constipation**, see page 24.

Your doctor or nurse will check your platelet count often.

You may need medication, a platelet transfusion, or a delay in your chemotherapy treatment if your platelet count is too low.

Call your doctor or nurse if you have any of these symptoms:

- Bruises, especially if you did not bump into anything.
- Small, red spots on your skin.
- Red- or pink-colored urine.
- Black or bloody bowel movements.
- Bleeding from your gums or nose.
- Heavy bleeding during your menstrual period or for a prolonged period.
- Vaginal bleeding not caused by your period.
- Headaches or changes in your vision.
- A warm or hot feeling in your arm or leg.
- Feeling very sleepy or confused.

Constipation

What It Is and Why It Occurs

Constipation is when bowel movements become less frequent and stools are hard, dry, and difficult to pass. You may have painful bowel movements and feel bloated or nauseous. You may belch, pass a lot of gas, and have stomach cramps or pressure in the rectum. Drugs such as chemotherapy and pain medicine can cause constipation. It can also happen when people are not active and spend a lot of time sitting or lying down. Constipation can also be due to eating foods that are low in fiber or not drinking enough fluids.

Ways to Manage

Keep a record of your bowel movements. Show this record to your doctor or nurse and talk about what is normal for you. This makes it easier to figure out whether you have constipation.

Drink at least eight cups of water or other fluids each day. Many people find that drinking warm or hot fluids, such as coffee and tea, helps with constipation. Fruit juices, such as prune juice, may also be helpful.

Be active every day. You can be active by walking, riding a bike, or doing yoga. If you cannot walk, ask about exercises that you can do in a chair or bed. Talk with your doctor or nurse about ways you can be more active.

Check with your doctor or nurse before using fiber supplements, laxatives, stool softeners, or enemas.

Ask your doctor, nurse, or dietitian about foods that are high in fiber. Eating high-fiber foods and drinking lots of fluids can help soften your stools. Good sources of fiber include whole-grain breads and cereals, dried beans and peas, raw vegetables, fresh and dried fruit, nuts, seeds, and popcorn. (To learn more, see the list of High-Fiber Foods on page 48.)

Let your doctor or nurse know if you have not had a bowel movement in two days. Your doctor may suggest a fiber supplement, laxative, stool softener, or enema. Do not use these treatments without first checking with your doctor or nurse.

Diarrhea

What It Is and Why It Occurs

Diarrhea is frequent bowel movements that may be soft, loose, or watery. Chemotherapy can cause diarrhea because it harms healthy cells that line your large and small intestines. It may also speed up your bowels. Diarrhea can also be caused by infections or drugs used to treat constipation.

Ways to Manage

Eat five or six small meals and snacks each day instead of three large meals. Many people find it easier to eat smaller amounts more often.

Ask your doctor or nurse about foods that are high in salts such as sodium and potassium. Your body can lose these salts when you have diarrhea, and it is important to replace them. Foods that are high in sodium or potassium include bananas, oranges, peach and apricot nectar, and boiled or mashed potatoes.

Drink eight to twelve cups of clear liquids each day. Examples include water, clear broth, ginger ale, coconut water or sugar free sports drinks. Drink slowly, and choose drinks that are at room temperature. Let carbonated drinks lose their fizz before you drink them. Add extra water if drinks make you thirsty or sick to your stomach.

Eat low-fiber foods. Foods that are high in fiber can make diarrhea worse. Low-fiber foods include bananas, white rice, white toast, and plain or vanilla yogurt. See page 49 for other Low-Fiber Foods.

Let your doctor or nurse know if your diarrhea lasts for more than 24 hours or if you have pain and cramping along with diarrhea. Your doctor may prescribe a medicine to control the diarrhea. You may also need IV fluids to replace the water and nutrients you lost. Do not take any medicine for diarrhea without first asking your doctor or nurse.

Be gentle when you wipe yourself after a bowel movement. Instead of toilet paper, use a baby wipe or squirt of water from a spray bottle to clean yourself after bowel movements. Let your doctor or nurse know if your rectal area is sore or bleeds or if you have hemorrhoids.

Ask your doctor or nurse before taking medicine for diarrhea.

Ask your doctor if you should try a clear liquid diet. This can give your bowels time to rest. Most people stay on this type of diet for five days or less. See page 46 for a list of Clear Liquids.

Avoid:

- Alcoholic beverages.
- Milk or milk products, such as ice cream, milkshakes, sour cream, and cheese.
- Spicy foods, such as hot sauce, salsa, chili, and curry dishes.
- Greasy and fried foods, such as French fries and hamburgers.
- Foods or drinks with caffeine, such as regular coffee, black tea, cola, and chocolate.
- Foods or drinks that cause gas, such as cooked dried beans, cabbage, broccoli, and soy milk and other soy products.
- Foods that are high in fiber, such as cooked dried beans, raw fruits and vegetables, nuts, and whole-wheat breads and cereals.

Fatigue

What It Is and Why It Occurs

Fatigue from chemotherapy can range from a mild to extreme feeling of being tired. Many people describe fatigue as feeling weak, weary, worn out, heavy, or slow. Resting does not always help.

Many people say they feel fatigue during chemotherapy and even for weeks or months after treatment is over. Fatigue can be caused by the type of chemotherapy, the effort of making frequent visits to the doctor, or feelings such as stress, anxiety, and depression. If you receive radiation therapy along with chemotherapy, your fatigue may be more severe.

Fatigue can also be caused by:

- Anemia (see page 20)
- Pain (see page 39)
- Medications
- Appetite Changes (see page 21)
- Trouble sleeping
- Lack of activity
- Trouble breathing
- Infection (see page 31)
- Doing too much at one time
- Other medical problems

Fatigue can happen all at once or little by little. People feel fatigue in different ways. You may feel more or less fatigue than someone else who gets the same type of chemotherapy.

Ways to Manage

Practice self-care. You might want to try meditation, prayer, yoga, guided imagery, visualization, or other ways to relax and decrease stress. For ideas on relaxation exercises, see Learning to Relax at: www.cancer.gov/about-cancer/coping/feelings/relaxation.

Eat and drink well. Often, this means five to six small meals and snacks a day rather than three large meals. Keep foods around that are easy to fix, such as canned soups, frozen meals, yogurt, and cottage cheese. Drink plenty of fluids each day—about 8 cups of water or juice.

Plan time to rest. You may feel better when you rest or take a short nap during the day. Many people say that it helps to rest for just 10 to 15 minutes rather than nap for a long time. If you nap, try to sleep for less than 1 hour. Keeping naps short will help you sleep better at night.

Be active. Research shows that exercise can ease fatigue and help you sleep better at night. Try going for a 15-minute walk, doing yoga, or riding an exercise bike. Plan to be active when you have the most energy. Talk with your doctor or nurse about ways you can be active while getting chemotherapy.

Prioritize your activities. With fatigue, you may not have enough energy to do all the things you want to do. Choose the activities you want to do and let someone else help with the others. Try quiet activities that bring you joy.

Practice good sleep hygiene. You may need more sleep than you needed before chemotherapy. You are likely to sleep better at night when you are active during the day. You may also find it helpful to relax before going to bed.

Plan a work schedule that works for you. Fatigue may affect the amount of energy you have for your job. You may feel well enough to work your full schedule. Or you may need to work less—maybe just a few hours a day or a few days each week. If your job allows, you may want to talk with your boss about ways to work from home. Or you may want to go on medical leave (stop working for a while) while getting chemotherapy.

Let others help. Ask family members and friends to help when you feel fatigue. Perhaps they can help with household chores or drive you to and from doctor's visits. They might also help by shopping for food and cooking meals for you to eat now or freeze for later.

Get support from others who have cancer. People who have cancer can help by sharing ways that they manage fatigue. One way to meet others is by joining a support group—either in person or online. See page 22 for **peer navigation programs**, or reach out to your care navigator for a support group recommendation that is right for you.

Keep a diary of how you feel each day. This will help you plan how to best use your time. Share your diary with your nurse. Let your doctor or nurse know if you notice changes in your energy level, whether you have lots of energy or are very tired.

Talk with your doctor or nurse. Your doctor may prescribe medication that can help decrease fatigue, give you a sense of well-being, and increase your appetite. He or she may also suggest treatment if your fatigue is from anemia. (To learn more about **Anemia**, see page 20.)

Hair Loss and Hair Preservation

What It Is and Why It Occurs

Hair loss (also called alopecia) is when some or all of your hair falls out. This can happen anywhere on your body. The degree of your hair loss will depend on type, dose, and duration of your chemotherapy. Many people are upset by the loss of their hair and find it the most difficult part of chemotherapy.

Hair often grows back two to three months after chemotherapy is over.

Some types of chemotherapy damage the cells that cause hair growth. Hair loss often starts two to three weeks after chemotherapy begins. Your scalp may hurt at first. Then you may lose your hair, either a little at a time or in clumps. It takes about one week for all your hair to fall out. Almost always, your hair will grow back two to three months after chemotherapy is over. You may notice that your hair starts growing back even while you are getting chemotherapy.

Your hair will be very fine when it starts growing back. Also, your new hair may not look or feel the same as it did before. For instance, your hair may be thin instead of thick, curly instead of straight, and darker or lighter in color.

Ways to Manage

Before hair loss:

Talk with your doctor or nurse. He or she will know if you are likely to have hair loss.

Cut your hair short or shave your head. You might feel more in control of hair loss if you first cut your hair or shave your head. This often makes hair loss easier to manage. If you shave your head, use an electric shaver instead of a razor.

Think about options for head coverings. If you choose to cover your head, there are many options to consider. Wigs, scarves, and hats are all viable options. If you decide not to wear a head covering, be sure to wear SPF on your scalp when outside.

Ask if your insurance company will pay for a wig. If it will not, you can deduct the cost of your wig as a medical expense on your income tax. Some groups also have free "wig banks." Your doctor, nurse, or social worker will know if there is a wig bank near you.

Be gentle when you wash your hair. Use a mild shampoo, such as a baby shampoo. Dry your hair by patting (not rubbing) it with a soft towel.

Do not use items that can hurt your scalp. These include:

- Straightening or curling irons
- Brush rollers or curlers
- Electric hair dryers
- Hair bands and clips
- Hairsprays
- Hair dyes
- Products to perm or relax your hair

If you plan to buy a wig, do so while you still have hair.

After hair loss:

Protect your scalp. Your scalp may hurt during and after hair loss. Protect it by wearing a hat, turban, or scarf when you are outside. Try to avoid places that are very hot or very cold. This includes tanning beds and outside in the sun or cold air. And always apply sunscreen or sunblock to protect your scalp.

Stay warm. You may feel colder once you lose your hair. Wear a hat, turban, scarf, or wig to help you stay warm.

Sleep on a satin pillow case. Satin creates less friction than cotton when you sleep on it. Therefore, you may find satin pillow cases more comfortable.

Talk about your feelings. Many people feel angry, depressed, or embarrassed about hair loss. If you are very worried or upset, you might want to talk about these feelings with a doctor, nurse, family member, close friend, or someone who has had hair loss caused by cancer treatment.

Hair Preservation

Cooling caps (scalp hypothermia) can be used before, during, and after each chemotherapy treatment to try to prevent or reduce hair loss. Blood vessels are tightened, or constricted, during cooling which is thought to reduce the amount of chemotherapy that reaches the cells of the hair follicle.

Ways to Learn More

MemorialCare Resources

All MemorialCare Cancer Institutes have cancer care boutiques offering wigs and other products to help patients look and feel their best.

For MemorialCare Saddleback Medical Center, visit: memorialcare.org/renewalboutique

For MemorialCare Long Beach Medical Center visit:
memorialcare.org/martiscloset

For the wig bank at Orange Coast Medical Center, call: (714) 378-7600

Virtual Look Good Feel Better Workshops:

How to enroll:

1. Visit lookgoodfeelbetter.org/Alliance-Partner-Virtual-Workshops and scroll down to where it states “More Virtual Workshop Topics.”
2. Select “Sign Up” for an upcoming session, and note “OR92708” under the “Site Referral Code” field when registering.

For more information, please call (714) 378-7900.

Infection

What It Is and Why It Occurs

Some types of chemotherapy make it harder for your bone marrow to produce new white blood cells. White blood cells help your body fight infection. Since chemotherapy decreases the number of your white blood cells, it is important to avoid infections.

There are many types of white blood cells. One type is called a neutrophil. When your neutrophil count is low, it is called neutropenia. Your doctor or nurse may do blood tests to find out whether you have neutropenia.

It is important to watch for signs of infection when you have neutropenia. Check for fever at least once a day, or as often as your doctor or nurse tells you to. You may find it best to use a digital thermometer. Many doctors will want you to call if you have a fever of 100.4°F or higher, but this can vary. Ask your doctor or nurse when you should call to report a high fever.

Ways to Manage

Your doctor or nurse will check your white blood cell count throughout your treatment. If chemotherapy is likely to make your white blood cell count very low, you may get medicine to raise your white blood cell count and lower your risk of infection.

Wash your hands often with soap and water. Be sure to wash your hands before cooking and eating, and after you use the bathroom, blow your nose, cough, sneeze, or touch animals. Carry hand sanitizer for times when you are not near soap and water.

Use sanitizing wipes to clean surfaces and items that you touch. This includes public telephones, ATM machines, doorknobs, and other common items.

Be gentle and thorough when you wipe yourself after a bowel movement. Instead of toilet paper, use a baby wipe or squirt of water from a spray bottle to clean yourself. Let your doctor or nurse know if your rectal area is sore or bleeds or if you have hemorrhoids.

Stay away from people who are sick. This includes people with colds, flu, measles, or chicken pox. You also need to stay away from children who just had a “live virus” vaccine for chicken pox or polio. Call your doctor, nurse, or local health department if you have any questions.

Stay away from crowds. Try not to be around a lot of people. For instance, plan to go shopping or to the movies when the stores and theaters are less crowded.

Be careful not to cut or nick yourself. Do not cut or tear your nail cuticles. Use an electric shaver instead of a razor. And be extra careful when using scissors, needles, or knives.

Watch for signs of infection around your catheter. Signs to look for include drainage, redness, swelling, or soreness. Tell your doctor or nurse about any changes you notice near your catheter

Maintain good mouth care. Brush your teeth after meals and before you go to bed. Use a very soft toothbrush. You can make the bristles even softer by running hot water over them just before you brush. Use a mouth rinse that does not contain alcohol. Check with your doctor or nurse before going to the dentist. (For more about taking care of your mouth, **Mouth and Throat Changes** see page 34.)

Take good care of your skin. Do not squeeze or scratch pimples. Use lotion to soften and heal dry, cracked skin. Dry yourself after a bath or shower by gently patting your skin.

Do not take drugs that reduce fever without first talking with your doctor or nurse.

Be careful not to rub your skin. For more information about taking care of your skin, **Skin and Nail Changes**, see page 43.

Clean cuts right away. Use warm water, soap, and an antiseptic to clean your cuts. Clean your cut like this every day until your cut has a scab over it.

Be careful around animals. Do not clean your cat's litter box, pick up dog waste, or clean bird cages or fish tanks. Be sure to wash your hands after touching pets and other animals.

Do not get a flu shot or other type of vaccine without first asking your doctor or nurse. Some vaccines contain a live virus, which you should not be exposed to.

Keep hot foods hot and cold foods cold. Do not leave leftovers sitting out. Put them in the refrigerator as soon as you are done eating.

Wash raw vegetables and fruits well before eating them. Avoid those that cannot be washed well.

Do not eat raw or undercooked fish, seafood, meat, chicken, or eggs. These foods may have bacteria that can cause infection.

Do not eat or drink items that are past the freshness date. Do not eat foods that have moldy spots, even if you cut them out.

Call your doctor right away if you think you have an infection. Even if it's on the weekend or in the middle of the night, you still need to call. Be sure you know how to reach your doctor after office hours and on weekends. Call when you have chills or sweats or if you have a fever of 100.4°F or higher (or whatever temperature your doctor or nurse tells you). Do not take aspirin, acetaminophen, ibuprofen products, or any other drugs that reduce fever without first talking with your doctor or nurse. Besides fever, other signs of infection include:

- Redness
- Swelling
- Rash
- Chills
- Cough
- Earache
- Headache
- Stiff neck
- Bloody or cloudy urine
- Painful or frequent need to urinate
- Sinus pain or pressure

Be sure you know how to reach your doctor or nurse after office hours and on weekends.

Fertility Preservation

What It Is and Why It Occurs

Some types of chemotherapy can cause infertility. For a woman, this means that you may not be able to become pregnant. For a man, this means you may not be able to father a child.

Before treatment starts, tell your doctor or nurse if you want to have children in the future.

In women, chemotherapy may damage the ovaries. This damage can lower the number of healthy eggs in the ovaries. It can also lower the hormones produced by them. The drop in hormones can lead to early menopause. Early menopause and fewer healthy eggs can cause infertility.

In men, chemotherapy may damage sperm cells, which grow and divide quickly. Infertility may occur because chemotherapy can lower the number of sperm, make sperm less able to move, or cause other types of damage

Whether or not you become infertile depends on the type of chemotherapy you get, your age, and whether you have other health problems. Infertility can last the rest of your life.

Ways to Manage

For WOMEN, talk with your doctor or nurse about:

Whether you want to have children. Before you start chemotherapy, let your doctor or nurse know if you might want to get pregnant in the future. He or she may talk with you about ways to preserve your eggs to use after treatment ends or refer you to a fertility specialist.

Birth control. It is very important that you do not get pregnant while getting chemotherapy. These drugs can hurt the fetus, especially in the first three months of pregnancy. If you have not yet gone through menopause, talk with your doctor or nurse about birth control and ways to prevent pregnancy.

Pregnancy. If you still have menstrual periods, your doctor or nurse may ask you to have a pregnancy test before you start chemotherapy. If you are pregnant, your doctor or nurse will talk with you about other treatment options.

For MEN, talk with your doctor or nurse about:

Whether you want to have children. Before you start chemotherapy, let your doctor or nurse know if you might want to father children in the future. He or she may talk with you about ways to preserve your sperm to use in the future or refer you to a fertility specialist.

Birth control. It is very important that your spouse or partner not get pregnant during your course of chemotherapy. Chemotherapy can damage your sperm and cause birth defects.

Chemotherapy can cause birth defects. Do not get pregnant while you are on treatment.

Mouth and Throat Changes

What They Are and Why They Occur

Some types of chemotherapy harm fast-growing cells, such as those that line your mouth, throat, and lips. This can affect your teeth, gums, the lining of your mouth, and the glands that make saliva. Most mouth problems go away a few days after chemotherapy is over.

Mouth and throat problems may include:

- Dry mouth
- Changes in taste and smell, such as when food tastes like metal or chalk, has no taste, or does not taste or smell like it used to
- Infections of your gums, teeth, or tongue
- Increased sensitivity to hot or cold foods
- Mouth sores
- Trouble eating when your mouth gets very sore

Ways to Manage

Visit a dentist at least two weeks before starting chemotherapy. It is important that your mouth is as healthy as possible, which means having all your dental work done before chemotherapy starts. If you cannot go to the dentist before chemotherapy starts, ask your doctor or nurse when it is safe to go. Be sure to tell your dentist that you have cancer and about your treatment plan.

Check your mouth and tongue every day. By checking your mouth, you can see or feel problems (such as mouth sores, white spots, or infections) as soon as they start. Inform your doctor or nurse right away if you see any of these problems.

Keep your mouth moist. You can keep your mouth moist by sipping water throughout the day, sucking on ice chips or sugar-free hard candy, or chewing sugar-free gum. Ask your doctor or nurse about saliva substitutes if your mouth is always dry.

Clean your mouth, teeth, gums, and tongue.

- Brush your teeth, gums, and tongue after each meal and at bedtime.
- Use an extra-soft toothbrush. You can make the bristles even softer by rinsing your toothbrush in hot water before you brush.
- If brushing is painful, try cleaning your teeth with cotton swabs.
- Use a fluoride toothpaste or special fluoride gel that your dentist prescribes.
- Do not use mouthwash that has alcohol. Instead, rinse your mouth three to four times a day with a solution of baking soda, salt, and warm water followed by a plain water rinse.
- There are many recipes for this solution, but an example is 1/4 teaspoon baking soda, 1/8 teaspoon salt, and 1 cup of warm water.
- Gently floss your teeth every day. If your gums bleed or hurt, avoid those areas but floss your other teeth. Ask your doctor or nurse about flossing if your platelet count is low.
- (See **Bleeding** on page 24 for more information on platelets.)

Call your doctor, nurse, or dentist if your mouth hurts a lot. Your doctor or dentist may prescribe medicine for pain or to keep your mouth moist. Make sure to give your dentist the phone number of your doctor and nurse

- If you wear dentures, make sure they fit well and keep them clean. Also, limit the length of time that you wear them.

Be careful what you eat when your mouth is sore.

- Choose foods that are moist, soft, and easy to chew or swallow. These include cooked cereals, mashed potatoes, and scrambled eggs.
- Use a blender to puree cooked foods so that they are easier to eat. To help avoid infection, be sure to wash all blender parts before and after using them. If possible, it is best to wash them in a dishwasher.
- Take small bites of food, chew slowly, and sip liquids while you eat.
- Soften food with gravy, sauces, broth, yogurt, or other liquids.
- Eat foods that are cool or at room temperature. You may find that warm and hot foods hurt your mouth or throat.
- Suck on ice chips or popsicles. These can relieve mouth pain.
- Ask your dietitian for ideas of foods that are easy to eat. For ideas of **Foods that Are Easy on a Sore Mouth**, see page 50.

Avoid things that can hurt, scrape, or burn your mouth, such as:

- Sharp or crunchy foods, such as crackers and potato or corn chips
- Spicy foods, such as hot sauce, curry dishes, salsa, and chili
- Citrus fruits or juices such as orange, lemon, and grapefruit
- Food and drinks that have a lot of sugar, such as candy or soda
- Beer, wine, and other types of alcohol
- Toothpicks or other sharp objects
- Tobacco products, including cigarettes, pipes, cigars, and chewing tobacco

MemorialCare Smoking Cessation Classes

The American Lung Association's "Freedom from Smoking" program includes eight group-style meetings and features a step-by-step plan to help tobacco users gain control over their behavior and quit smoking. Each meeting is facilitated by a respiratory care practitioner and oncology nurse practitioner. For more information or to register, please call (714) 378-7650.

Nausea and Vomiting

What They Are and Why They Occur

Some types of chemotherapy can cause nausea, vomiting, or both. Nausea is when you feel sick to your stomach, like you are going to throw up. Vomiting is when you throw up. You may also have dry heaves, which is when your body tries to vomit even though your stomach is empty.

Nausea and vomiting can occur while you are getting chemotherapy, right after, or many hours or days later. You will most likely feel better on the days you do not get chemotherapy.

There are medications that can help prevent nausea and vomiting. These are called antiemetic or antinausea drugs. You may need to take these drugs 1 hour before each chemotherapy treatment and for a few days after. How long you take them after chemotherapy will depend on the type of chemotherapy you are getting and how you react to it. If one antinausea drug does not work well for you, your doctor can prescribe a different one. You may need to take more than one type of drug to help with nausea. Acupuncture may also help. Talk with your doctor or nurse about treatments to control nausea and vomiting caused by chemotherapy.

Ways to Manage

Prevent nausea. One way to prevent vomiting is to prevent nausea. Try having bland, easy-to-digest foods and drinks that do not upset your stomach. These include plain crackers, toast, and gelatin. To learn more, see the list of **Foods that Are Easy on the Stomach** on page 51.

Plan when it's best for you to eat and drink. Some people feel better when they eat a light meal or snack before chemotherapy. Others feel better when they have chemotherapy on an empty stomach (nothing to eat or drink for 2 to 3 hours before treatment). After treatment, wait at least 1 hour before you eat or drink.

Eat small meals and snacks. Instead of three large meals each day, many people find it easier to eat if they have five or six small meals and snacks. It also helps not to drink a lot before or during meals and avoid lying down right after you eat.

Eat and drink items that are not too hot nor too cold. Give hot foods and drinks time to cool down, or make them colder by adding ice. You can warm up cold foods by taking them out of the refrigerator 1 hour before you eat or warming them slightly in a microwave. Drink cola or ginger ale that is warm and has lost its fizz.

Avoid strong smells. Try to avoid foods and drinks with strong smells, such as coffee, fish, onions, garlic, and cleaning products, scented lotions, and perfumes.

Suck on small bites of popsicles or fruit ices. You may also find sucking on ice chips helpful.

Suck on sugar-free mints or tart candies. But do not use tart candies if you have mouth or throat sores.

Relax before treatment. You may feel less nausea if you relax before each chemotherapy treatment. Meditate, do deep breathing exercises, or imagine scenes or experiences that make you feel peaceful. You can also do quiet hobbies such as reading, listening to music, or knitting. For relaxation exercises, visit Learning to Relax on the National Cancer Institute's web site at: www.cancer.gov/about-cancer/coping/feelings/relaxation.

Eat five or six small meals and snacks each day instead of three large ones.

When you feel like vomiting, breathe deeply and slowly or get fresh air. You might also distract yourself by chatting with friends or family, listening to music, or watching a movie or TV shows.

Talk with your doctor or nurse. Your doctor can give you medication to help prevent nausea before, during and after chemotherapy. Be sure to take these drugs as ordered and let your doctor or nurse know if they do not work. You might also ask your doctor or nurse about acupuncture, which can help relieve nausea and vomiting caused by cancer treatment.

Tell your doctor or nurse if you vomit for more than one day or right after you drink.

Let your doctor or nurse know if your medicine for nausea is not working.

> Let your doctor or nurse know if your medicine for nausea is not working.

MemorialCare Nutrition Services

The MemorialCare Cancer Institute is proud to offer nutrition counseling using the evidence-based practice of medical nutrition therapy provided by registered dietitian nutritionists (RDNs). Our RDNs provide individualized, in-depth nutrition counseling for the management of symptoms and side effects related to cancer and cancer treatment.

Long Beach Medical Center
(562) 933-1877

Orange Coast Medical Center
(714) 378-7900

Saddleback Medical Center
(949) 452-7873

Nervous System Changes

What They Are and Why They Occur

Chemotherapy can cause damage to your nervous system. Many nervous system problems get better within a year of when you finish chemotherapy, but some may last the rest of your life. Symptoms may include:

- Tingling, burning, weakness, or numbness in your hands or feet
- Feeling colder than normal
- Pain when walking
- Weak, sore, tired, or achy muscles
- Being clumsy and losing your balance
- Trouble picking up objects or buttoning your clothes
- Shaking or trembling
- Hearing loss
- Stomach pain, such as constipation or heartburn
- Fatigue
- Confusion and memory problems
- Dizziness
- Depression and/or anxiety

Ways to Manage

Be careful when handling knives, scissors, and other sharp or dangerous objects. Think about wearing gloves while gardening or cooking for extra protection.

Avoid falling. Walk slowly, hold onto handrails when using the stairs, and put no-slip bath mats in your bathtub or shower. Make sure there are no area rugs or cords to trip over. Always wear sneakers, tennis shoes, or other lace-up footwear with rubber soles. Steady yourself when you walk by using a cane or other device.

Be careful when using hot water. Use a thermometer to check the temperature in your bath or ask someone to check it for you. Wear gloves when washing dishes. Think about lowering the temperature on your hot water heater.

Rest when you need to. Ask for help taking care of household tasks and errands.

Talk to your doctor or nurse. Let them know right away if you notice any nervous system changes, including memory problems and feeling confused or depressed. Ask for pain medicine if you need it.

MemorialCare Rehabilitation Services

Cancer Rehabilitation is designed to provide optimal outcomes for daily living. You will receive specialized one-on-one care from our physical therapy staff and be immersed in a culture of healing, education and motivation. We offer a variety of cancer rehabilitation therapies including physical therapy, occupational therapy, dysphagia therapy and more.

Our Rehabilitation Centers

Long Beach Medical Center
(562) 933-9007

Orange Coast Medical Center
(714) 378-5095

Saddleback Medical Center
(949) 452-7040

Pain

What It Is and Why It Occurs

Some types of chemotherapy cause painful side effects, such as burning, numbness, and tingling or shooting pains in your hands and feet. They can also cause mouth sores, headaches, muscle pains, and stomach pains. Pain can be caused by the cancer itself or by chemotherapy. Doctors and nurses have ways to decrease or relieve your pain.

Ways to Manage

Talk about your pain with a doctor, nurse, or pharmacist.
Be specific and describe:

- Where you feel pain. Is it in one part of your body or all over?
- What the pain feels like. Is it sharp, dull, or throbbing? Does it come and go, or is it steady?
- How strong the pain is. Describe it on a scale of 0 to 10.
- How long the pain lasts. Does it last for a few minutes, an hour, or longer?
- What makes the pain better or worse. For instance, does an ice pack help? Or does the pain get worse if you move a certain way?
- Which medicines you take for pain. Do they help? How long do they last? How much do you take? How often?

Let your family and friends know about your pain. They need to know about your pain so they can help you. If you are very tired or in a lot of pain, they can call your doctor or nurse for you. Knowing about your pain can also help them understand why you may be acting differently.

Practice pain control.

- Take your pain medicine as prescribed by your doctor. If you have pain all the time, your doctor may suggest that you take your pain medicine on a set schedule. If you are on a set schedule, take the pain medicine as prescribed, rather than waiting to feel like you need it. Pain is harder to control and manage if you wait until you are in a lot of pain before taking medicine.
- Try deep breathing, yoga, or other ways to relax. This can help reduce muscle tension, anxiety, and pain.

Ask to meet with a pain or palliative care specialist. This person may be an oncologist, anesthesiologist, neurologist, neurosurgeon, nurse, or pharmacist who will talk with you about ways to control your pain.

MemorialCare Palliative Care Services

In the hospital:
Long Beach Medical Center
(562) 933-7158

Orange Coast Medical Center
(714) 378-7167

Saddleback Medical Center
(949) 452-7000

Outpatient clinic:
MemorialCare Medical Group Long Beach (Los Altos)
(877) 696-3622

Long Beach (Todd Cancer Institute)
(562) 933-1877

Fountain Valley
(877) 696-3622

Sexual Changes

What They Are and Why They Occur

Some types of chemotherapy can cause sexual changes. These changes are different for women and men.

In women, chemotherapy may damage the ovaries, which can cause changes in hormone levels. Hormone changes can lead to problems like vaginal dryness and early menopause.

In men, chemotherapy can cause changes in hormone levels, decreased blood supply to the penis, or damage to the nerves that control the penis, all of which can lead to impotence.

Whether or not you have sexual changes during chemotherapy depends on if you have had these problems before, the type of chemotherapy you are getting, your age, and whether you have any other illnesses. Some problems, such as loss of interest in sex, are likely to improve once chemotherapy is over.

Problems for WOMEN include:

Symptoms of menopause (for women not yet in menopause). These symptoms include:

- Hot flashes
- Vaginal dryness
- Feeling irritable
- Irregular or no menstrual periods

Bladder or vaginal infections

Vaginal discharge or itching

Being too tired to have sex or not being interested in having sex

Feeling too worried, stressed, or depressed to have sex

Problems for MEN include:

Not being able to reach climax

Impotence (not being able to get or keep an erection)

Being too tired to have sex or not being interested in having sex

Feeling too worried, stressed, or depressed to have sex

Talk with your doctor or nurse about ways to relieve vaginal dryness and prevent infection.

Ways to Manage

For WOMEN:
Talk with your doctor or nurse about:

Sex. Ask your doctor or nurse if it is okay for you to have sex during chemotherapy. Most women can have sex, but it is a good idea to ask.

Birth control. It is very important to prevent pregnancy while having chemotherapy and for a year afterwards. Chemotherapy may hurt the fetus, especially in the first three months of pregnancy. If you have not yet gone through menopause, talk with your doctor or nurse about birth control and ways to keep from getting pregnant. They may suggest that you use two forms of birth control. Also, ask if you should use a condom when you have sex, since traces of chemotherapy may be in your vaginal fluid.

Medications. Talk with your doctor, nurse, or pharmacist about medications that help with sexual problems. Medications may include products to relieve vaginal dryness or a vaginal cream or suppository to reduce the chance of infection.

To help prevent infections:

- Wear cotton underwear or underpants and pantyhose with cotton linings.
- Do not wear tight pants or shorts.

Use a lubricant when you have sex. If sex is still painful because of dryness, ask your doctor or nurse about medications or other treatments to help restore moisture in your vagina.

Cope with hot flashes by:

Dressing in layers. Wear a sweater or jacket that you can take off when needed.

Being active. Add walking, biking, swimming, or other types of exercise to your daily routine.

Reducing stress. Besides getting regular exercise, try yoga, meditation, or relaxation exercises. For relaxation exercises, visit Learning to Relax on the National Cancer Institute's web site at: www.cancer.gov/about-cancer/coping/feelings/relaxation.

For MEN:
Talk with your doctor or nurse about:

Sex. Ask your doctor or nurse if it is okay for you to have sex during chemotherapy. Most men can have sex, but it is a good idea to ask. Also, ask if you should use a condom when you have sex, since traces of chemotherapy may be in your semen.

Birth control. It is very important that your spouse or partner not get pregnant while you are getting chemotherapy. Chemotherapy can damage your sperm and cause birth defects.

For men AND women:

Be open and honest with your spouse or partner. Talk about your feelings and concerns.

Explore new ways to show love. You and your spouse or partner may want to show your love for each other in new ways while you go through chemotherapy. For instance, if you are having sex less often, you may want to hug and cuddle more, bathe together, give each other massages, or try other activities that make you feel close to each other.

> If you are having sex less often, try activities that make you feel close to each other.

Talk with a doctor, nurse, social worker, or counselor. If you and your spouse or partner are concerned about sexual problems, you may want to talk with someone who can help. This person can be a psychiatrist, psychologist, social worker, marriage counselor, sex therapist, or clergy member.

Meet with a MemorialCare Pelvic Health Specialist

Our Pelvic Health Centers offer one of the most comprehensive pelvic health rehabilitation programs with a holistic approach to care. We focus on various conditions that affect men and women in the abdominal and pelvic regions to provide you with relief and improve your overall quality of life.

Long Beach Medical Center
(562) 933-8512

Saddleback Medical Center
(949) 452-7040

Skin and Nail Changes

What They Are and Why They Occur

Some types of chemotherapy can damage the fast-growing cells in your skin and nails. While these changes may be painful and annoying, most are minor and do not require treatment. Many of them will get better once you have finished chemotherapy. However, major skin changes need to be treated right away because they can cause lifelong damage.

Minor skin changes may include:

Itching, dryness, redness, rashes, and peeling.

Sensitivity to the sun (when you burn very quickly).

Hyperpigmentation, a problem that results in dark patches on your skin or a darker skin color. Dark patches may occur:

- Around your joints
- Under your nails
- In your mouth
- Along the vein used to give you chemotherapy
- Under tape or dressings
- In your hair

Other nail problems. Besides becoming darker, your nails may also turn yellow or become brittle and cracked. Sometimes your nails will loosen and fall off, but new nails will grow back in.

Major skin changes can be caused by:

Radiation recall. Some chemotherapy causes skin in the area where you had radiation therapy to turn red. The color can range from very light to bright red. Your skin may blister, peel, or be very painful.

Changes at the infusion site. You need to let your doctor or nurse know right away if you have burning or pain when you get IV chemotherapy.

Allergic reactions to chemotherapy. Some skin changes mean that you are allergic to the chemotherapy. Let your doctor or nurse know right away if you wheeze or have trouble breathing along with:

- Sudden and severe itching
- Rashes
- Hives

Major skin changes need to be treated right away, because they can cause lifelong changes.

Let your doctor or nurse know right away if you have burning or pain when you get IV chemotherapy.

Ways to Manage

Itching, dryness, redness, rashes, and peeling

- Sprinkle yourself with cornstarch.
- Take quick showers or sponge baths instead of long, hot baths.
- Pat, rather than rub, yourself dry after bathing.
- Wash with a mild, moisturizing soap.
- Put on cream or lotion while your skin is still damp after washing, and reapply throughout the day. Tell your doctor or nurse if this does not help.
- Do not use perfume, cologne, or aftershave lotion that has alcohol.
- Take a colloidal oatmeal bath when your whole body itches. Colloidal oatmeal is a special powder you add to bath water.

Acne-type rash

- Keep your face clean and dry.
- Ask your doctor or nurse if you can use medicated creams or soaps and which ones to use.

Sensitivity to the sun

- Avoid direct sunlight. During the summer, the sun tends to be the strongest from 10 a.m. until 4 p.m.
- Use sunscreen lotion with an SPF (skin protection factor) of 30 or higher. Or use ointments that block the sun's rays, such as those with zinc oxide.
- Keep your lips moist with a lip balm that has an SPF of 30 or higher.
- Wear light-colored pants, long-sleeve cotton shirts, and hats with wide brims.
- Do not use tanning beds.

Nail problems

- Wear gloves when washing dishes, working in the garden, or cleaning the house.
- Let your doctor or nurse know if your cuticles are red and painful.

Radiation recall

- Protect the area of your skin that received radiation therapy from the sun.
- Do not use tanning beds.
- Place a cool, wet cloth where your skin hurts.
- Wear clothes that are made of cotton or other soft fabrics. This includes your underwear (bras, underpants, and t-shirts).
- Let your doctor or nurse know if you think you have radiation recall.

Urinary, Kidney, or Bladder Changes

What They Are and Why They Occur

Some types of chemotherapy damage cells in the kidneys and bladder. Problems may include:

- Burning or pain when you begin to urinate or after you empty your bladder
- Frequent, more urgent need to urinate
- Not being able to urinate
- Not able to control the flow of urine from the bladder (also called incontinence)
- Blood in the urine
- Fever
- Chills
- Urine that is orange, red, green, or dark yellow or has a strong medicine odor

Some kidney and bladder problems will go away after you finish chemotherapy. Other problems can last for the rest of your life.

Ways to Manage

You will have regular lab tests. Your doctor or nurse will take urine and blood samples to check how well your bladder and kidneys are working.

Drink plenty of fluids. Fluids will help flush the chemotherapy out of your bladder and kidneys. See the lists of **Clear Liquids** on page 46 and **Liquid Foods** on page 46.

Limit drinks that contain caffeine, such as black tea, coffee, and some cola products.

Talk to your doctor or nurse. Tell them if you have any of the problems listed above

Meet with a MemorialCare Pelvic Health Specialist

Our Pelvic Health Centers offer one of the most comprehensive pelvic health rehabilitation programs with a holistic approach to care. We focus on various conditions that affect men and women in the abdominal and pelvic regions to provide you with relief and improve your overall quality of life.

Long Beach Medical Center	(562) 933-8512
Saddleback Medical Center	(949) 452-7040

Drink plenty of fluids if you are getting chemtherapy that can damage the bladder and kidneys.

Other Side Effects

Flu-like Symptoms

Some types of chemotherapy can make you feel like you have the flu. This is more likely to happen if you get chemotherapy along with immunotherapy.

Flu-like symptoms may include:

- Muscle and joint aches
- Headache
- Fatigue
- Nausea
- Fever
- Chills
- Appetite loss

These symptoms may last from one to three days. An infection or the cancer itself can also cause them. Let your doctor or nurse know if you have any of these symptoms.

Fluid Retention

Fluid retention is a buildup of fluid caused by chemotherapy, hormone changes caused by treatment, steroids, surgery, or your cancer. It can cause your face, hands, feet, or stomach to feel swollen and puffy. Sometimes fluid builds up around your lungs and heart, causing coughing, shortness of breath, or an irregular heartbeat. Fluid can also build up in the lower part of your belly, which can cause bloating.

You and your doctor or nurse can help manage fluid retention by:

- Weighing yourself at the same time each day, using the same scale.
- Let your doctor or nurse know if you gain weight quickly.
- Avoiding table salt or salty foods.
- Limiting the liquids you drink.
- If you retain a lot of fluid, your doctor may prescribe medicine to get rid of the extra fluid.

MemorialCare offers a comprehensive cancer rehabilitation program including lymphedema therapy. For more information, visit **memorialcare.org/lymphedematherapy**.

Eye Changes

Trouble wearing contact lenses. Some types of chemotherapy can bother your eyes and make wearing contact lenses painful. Ask your doctor or nurse if you can wear contact lenses while getting chemotherapy.

Blurry vision. Some types of chemotherapy can clog your tear ducts, which can cause blurry vision and watery eyes.

If your vision gets blurry or your eyes water more than usual, tell your doctor or nurse.

Foods to Help with Side Effects

If you have any questions or concerns regarding your diet during chemotherapy, please contact nutrition services:

Long Beach Medical Center
(562) 933-1877

Orange Coast Medical Center
(714) 378-7900

Saddleback Medical Center
(949) 452-7873

Clear Liquids

Clear liquid diet is nutritionally incomplete. If you are only tolerating clear liquids for more than 2 days, consult your Registered Dietitian, Nurse Practitioner, or Doctor. This list may help if you have:

- **Diarrhea**, see page 25.
- **Urinary, Kidney, or Bladder Changes**, see page 44.

Soups

- Bouillon
- Clear, fat-free broth
- Consommé

Drinks

- Caffeine-free tea
- Clear apple juice
- Clear carbonated beverages
- Clear nutritional drinks or supplements
- Coconut water
- Decaf coffee
- Fruit-flavored drinks
- Fruit punch
- Lemonade without pulp
- Sports drinks
- Water

Sweets

- Fruit ices or sorbet made without fruit pieces or milk
- Gelatin
- Hard candy
- Popsicles

Liquid Foods

This list may help if you:

- Do not feel like eating solid foods. See **Appetite Changes** on page 21.
- Have **Urinary, Kidney, or Bladder Changes**, see page 44.

Soups and Cereals

- Bouillon
- Broth
- Hot cereals like cream of wheat or cream of rice
- Soup that has been strained or pureed in a blender
- Soup with pureed potatoes
- Tomato soup

Drinks

- Caffeine free tea
- Carbonated beverages
- Decaf coffee
- Eggnog (pasteurized and alcohol free)
- Fruit and vegetable juices without pulp
- Fruit drinks
- Fruit punch
- Hot chocolate
- Milk, all types
- Milkshakes
- Smoothies
- Sports drinks and hydration beverages
- Tomato juice
- Vegetable juice
- Water

Fats

- Butter
- Cream
- Mayonnaise
- Margarine
- Oil
- Sour Cream

Sweets

- Custard (soft or baked)
- Eggnog
- Frozen yogurt
- Fruit ice, frozen fruit bars or sorbet without pieces of fruit or pulp
- Gelatin
- Hard candy
- Honey
- Ice cream with no chunks, such as nuts or cookie pieces
- Ice milk
- Jelly
- Pudding
- Syrup
- Whipped cream
- Yogurt, blended without fruit or nut pieces

Replacements and Supplements

- Instant breakfast drinks
- Liquid meal replacements containing around 400-500 calories and 20-30 grams of protein

Foods and Drinks that Are High in Calories and Protein

This list may help if you do not feel like eating. See **Appetite Changes** on page 21.

Soups

- Cream soups
- Soups with lentils, peas, or beans, such as garbanzo, pinto, black, red, and kidney

Drinks

- Whole milk
- Instant breakfast drinks
- Milkshakes
- Smoothies

Main meals and other foods

- Beef
- Butter, margarine, or oil added to food
- Cheese
- Chicken
- Cooked dried peas and bean, such as lentils, garbanzo, pinto, black, red, and kidney
- Cottage cheese
- Cream cheese
- Croissants
- Eggs
- Fish
- Nuts, seeds, and wheat germ
- Peanut butter
- Sour cream

Sweets

- Custards, soft or baked
- Frozen yogurt
- Ice cream
- Muffins
- Pudding
- Whole milk Greek yogurt

Replacements and Supplements

- Liquid meal replacements containing around 400-500 calories and 20-30 grams of protein
- Powdered milk added to foods, such as pudding, milkshakes, and scrambled eggs

High-fiber Foods (contain 4 grams or more of fiber per serving)

This list may help if you have difficulty passing bowel movements. See **Constipation** on page 24.

Main meals and other foods

- Bran muffins
- Bran or whole-grain cereals such as oatmeal, bran flakes, shredded wheat
- Brown or wild rice
- Cooked dried peas and beans, such as lentils, garbanzo, pinto, black, red, and kidney
- Whole-wheat bread
- Whole-wheat pasta

Fruits and vegetables

- Dried fruit, such as apricots, dates, prunes, and raisins
- Fresh fruit, such as apples, blueberries, and grapes
- Raw or cooked vegetables, such as broccoli, corn, green beans, peas, and spinach

Snacks

- Granola
- Nuts
- Popcorn
- Seeds, such as pumpkin or sunflower
- Trail mix

Low-fiber Foods (contain 1-2 grams or less of fiber per serving)

This list may help if you have loose or watery bowel movements. See **Diarrhea** on page 25.

Main meals and other foods

- Chicken or turkey, skinless
- Cooked refined cereals
- Cottage cheese
- Eggs
- Fish
- Noodles
- Potatoes, baked or mashed without the skin
- Soups made from allowed ingredients
- White bread
- White rice
- Liquid meal replacements or nutritional supplements containing less than 2 grams of fiber

Fruits and vegetables

- Canned fruit, such as peaches, pears, and applesauce
- Fruit or vegetable juice without pulp (except prune juice)
- Melon (cantaloupe, honeydew, watermelon)
- Ripe bananas
- Well-cooked and canned vegetables without skins, seeds or hulls

Snacks and desserts

- Cheese (all types)
- Cookies without nuts or seeds
- Gelatin
- Honey
- Ice cream without nuts or seeds
- Jelly
- Marshmallows
- Plain cakes such as angel food cake
- Pretzels
- Saltine crackers
- Sherbet, sorbet, fruit ice, frozen fruit bars without pieces of nuts, seeds, coconut, or dried fruit
- Tortilla chips
- Yogurt, all types

Foods that Are Easy on a Sore Mouth

This list may help if your mouth or throat are sore. See **Mouth and Throat Changes** on page 34.

Main meals and other foods

- Baby food
- Casseroles
- Chicken, egg or tuna salad
- Cooked refined cereals
- Cottage cheese
- Cream soups
- Creamy peanut butter
- Dry cereal soaked in milk
- Eggs (soft boiled or scrambled, quiches, omelets)
- Ground, chopped or pureed tender meat, poultry or fish
- Hummus
- Liquid meal replacements or nutritional supplements containing less than 2 grams of fiber
- Macaroni and cheese
- Mashed potatoes
- Pasta or rice in oil, butter, pesto or cream sauces
- Pureed cooked foods
- Refried or mashed beans
- Soft breads
- Soups
- Tofu
- Well-cooked soft vegetables
- Yogurt

Sweets

- Custards
- Gelatin
- Ice cream, fruit ice, popsicles, sorbet and sherbet
- Milk or milk alternatives
- Milkshakes
- Puddings
- Pureed or soft fruits like applesauce, bananas, pears, melon
- Smoothies
- Yogurt (plain or vanilla)

Foods that Are Easy on the Stomach

This list may help if you feel queasy or have trouble keeping food down. See **Nausea and Vomiting** on page 36.

Main meals and other foods

- Baby food
- Bagels or English muffins
- Boiled or baked meat, fish, poultry
- Bouillon or broth*
- Bread*
- Broth based soups
- Canned or fresh fruits
- Cooked cereals like oatmeal or cream of wheat
- Cream soups made with low fat milk
- Dry toast or cereal*
- Low fat cottage cheese
- Mashed potatoes
- Plain noodles or pasta
- Pretzels*
- Pureed cooked foods
- Rice
- Saltine or soda crackers*
- Scrambled or hard boiled eggs
- Soups
- Vegetables, as tolerated
- Vegetable juice
- White rice, potatoes, noodles or pasta*

Snacks and desserts

- Angel food cake
- Applesauce*
- Bananas*
- Canned or fresh fruits
- Fruit, pureed or baby food
- Gelatin*
- Low fat ice cream
- Low fat yogurt
- Popsicles, sherbet, Sorbet*
- Pudding or custard made with low fat milk
- Smoothies or milkshakes made with low fat milk
- Vanilla wafers

Drinks

- Apple, cranberry, grape juice*
- Bouillon or broth*
- Clear, high-calorie, high protein* nutritional drinks such as Ensure Clear* or Boost Breeze*
- Coconut water*
- Decaf or caffeine-free tea
- Fruit punch and sports drinks*
- Ginger ale*
- Ginger tea*

* *For periods of intense nausea and vomiting. The foods/liquids on this list is not nutritionally adequate for long term. Consult with your health care team if you are not able to eat other foods after 2 days.*

Helpful Contact Information

Resources

American Cancer Society

Offers a variety of services to people with cancer and their families, including referrals to low-cost wig banks.

Call: 1-800-ACS-2345 (1-800-227-2345)

TTY: 1-866-228-4327

Visit: **www.cancer.org**

Cancer Support Community

Dedicated to providing support, education, and hope to people affected by cancer.

Call: 1-888-793-9355

Visit: **www.cancersupportcommunity.org**

E-mail: help@cancersupportcommunity.org

CancerCare, Inc.

Offers free support, information, financial assistance, and practical help to people with cancer and their loved ones.

Call: 1-800-813-HOPE (1-800-813-4673)

Visit: **www.cancercare.org**

E-mail: info@cancercare.org

fertileHOPE

A LIVESTRONG initiative dedicated to providing reproductive information, support, and hope to cancer patients and survivors whose medical treatments present the risk of infertility.

Call: 1-855-844-7777

Visit: **livestrong.org/how-we-help/livestrong-fertility**

National Oral Health Information Clearinghouse

A service of the National Institute of Dental and Craniofacial Research that provides oral health information for special care patients.

Call: 1-866-232-4528

Visit: **www.nidcr.nih.gov**

E-mail: nidcrinfo@mail.nih.gov

Smokefree.gov

Provides resources including information on quitlines, a step-by-step cessation guide, and publications to help you or someone you care about quit smoking.

Call: 1-877-44U-QUIT (1-877-448-7848)

Visit: **www.smokefree.gov**

MemorialCare Todd Cancer Institute at Long Beach Medical Center

2810 Long Beach Blvd.
Long Beach, CA 90806
(562) 933-0900

MemorialCare Cancer Institute at Orange Coast Medical Center

18111 Brookhurst St.
Suite 4300
Fountain Valley, CA 92708
(714) 378-7900

MemorialCare Cancer Institute at Saddleback Medical Center

24451 Health Center Dr.
Laguna Hills, CA 92653
(949) 837-4500

MemorialCare™
Cancer Institute