

This factsheet tells about the health experts who may care for you at Huntsman Cancer Institute (HCI).

You are the center of your care team.

The health care experts on your care team will recommend the best care available for you. You listen, ask questions, and decide what is best for you.

Usually, our patients see their doctors in clinics. If you have chemotherapy, you will get it in our Infusion Center. You do not have to stay in the hospital to be treated.

Other patients may have hospital stays to get surgery or chemotherapy. They may need to stay in the hospital if serious problems happen with their cancer.

The care teams in the clinic and in the hospital are different.

Doctors

The doctors at HCI are experienced oncologists (cancer doctors). They direct your care. You will see one or more of these doctors during your clinic visits.

- A *medical oncologist* is the main cancer doctor for most patients. These doctors treat cancer with chemotherapy and other medicines.
- A *surgical oncologist* treats cancer by removing tumors from your body. Some patients may need only surgery to treat their cancer. The surgeon may be their main cancer doctor.
- A *radiation oncologist* treats cancer tumors with focused beams of x-rays.

Many patients see more than one of these types of cancer doctors. These doctors meet often to coordinate the best way to treat each individual patient.

If you stay in the hospital, you may have different doctors. The hospital doctors work closely with your clinic doctors to make sure you get the best care.

HCI is a teaching hospital. When your hospital doctor visits your room, other health care providers and students will come along:

- A *fellow* is a licensed doctor. Fellows have finished 3 years or more of specialty training.
- *Residents and interns* also have the title of doctor. They get specialty training at HCI.
- *Medical students* are still earning their medical degrees. They may help in your care, supervised by your hospital doctor.

Advanced Practice Clinicians

At your clinic visits, you may see a nurse practitioner (NP) or physician assistant (PA). They have completed advanced medical training. NPs and PAs work with your clinic doctor. They can do exams and procedures, order tests, and write prescriptions.

If you stay in the hospital, you may also see an NP or PA who works with your hospital doctor.

Nurses

All the nurses at HCI are registered nurses (RN). Many HCI nurses have extra training in cancer care. They are oncology certified nurses (OCN).

In the clinics and the hospital, nurses give treatments and make sure you are safe. Your nurse can answer many of your questions about your care. Nurses also help you cope with side effects.

If you have a problem or question, your nurse is the best person to contact first.

In the hospital, a *case manager* coordinates your cancer care plan. Usually, this nurse helps you prepare for leaving the hospital. The case manager makes sure you have the support and care you need after you go home, such as the following:

- Home care nurses
- Equipment such as oxygen, wheelchairs, and walkers
- Physical therapy

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Other Care Providers

At your clinic visits, *medical assistants* check your vital signs:

- Weight
- Temperature
- Blood pressure
- Heart rate

They guide you to the exam room. These assistants can also help your doctor and nurse with procedures.

When you stay in the hospital, *health care assistants* check your vital signs. They also help you with daily activities:

- Getting out of bed
- Bathing
- Grooming

In the clinics and the hospital, *pharmacists* work with your doctors and nurses to coordinate your medicines. They can give you a lot of information about the medicines you are taking.

In the infusion clinic, pharmacists prepare your medicines in the combination and dose you need.

HCI Services for All Patients

Social workers help you cope with the emotions and life changes that come from a cancer diagnosis. They teach ways to manage stress and find support groups. Services are open to patients and family.

Our *chaplain* can give spiritual support to patients and loved ones. The chaplain can help you find meaning and comfort in difficult times. Our spiritual care service includes many faiths.

Our *registered dietitians* can give you the best advice about diet and nutrition. Consultations are free for HCI patients.

Patient Financial Services can help you with these issues:

- Working with your insurance companies to get coverage for high-cost services before treatments begin
- Making sense of medical bills, insurance plan coverage, and claims
- Setting up payment plans
- Finding state and federal programs to help pay for care, medicine, or supplies if you are not insured

We offer many wellness services for patients and their caregivers:

- Acupuncture
- Massage
- Fitness classes
- Music, art, and writing classes

Learn more at huntsmancancer.org/wellness.

Chemotherapy Infusion

Your regimen is _____.

Your treatment will take about _____ hours.

What should I wear?

Wear comfortable clothes with easy access to your arms. If you have a port or central line, wear a top with a loose neck and no collar. The infusion nurse will need easy access to your chest.

Should I eat?

Yes. You should eat before and during your treatment. You may bring food from home. There is a microwave available to heat food.

Our volunteers also provide free drinks and snacks in the Infusion Center.

What should I bring with me?

- Any medications you will need while you are at the Infusion Center, especially pain medicines, nausea medicines, and insulin.
- Items to help you pass the time. Some treatments take several hours.
- Someone to drive you home.
- **Please bring no more than two guests.**

NOTE: Children under 14, sick visitors, and pets or therapy animals are not allowed in the Infusion Center or waiting area. Please do not wear perfume or cologne.

What is available in the Infusion Center?

- Pillows and blankets.
- Restrooms.
- A chair for visitors next to each infusion chair and bed.
- Free beverages and snacks.
- Wireless internet access.

What can I expect on the day of my treatment?

1. Check in where you see your oncologist. Sometimes you may see your doctor the day before. If this happens, go directly to the Infusion Center the day of your treatment.
2. The nurse will put a needle in one of your veins (IV) or access your central line and draw blood for lab tests. Results take about 1 hour.
3. You will visit with your doctor to review your condition and lab results.
4. You will go to the Infusion Center.
5. We will assign a nurse to you. For this reason, you will not be able to choose where to sit.
6. Your nurse and two pharmacists will check your lab results and verify your treatment orders before mixing your chemotherapy.
7. A third pharmacist mixes your chemotherapy. Your nurse and a second nurse check your chemotherapy before giving it to you. These steps take extra time, but are important for your safety.

During treatment, your nurse will give you information about the drugs you receive. Your nurse will also talk about the possible side effects and how to manage them.

After treatment, your nurse will give you information about the drugs you received. Your nurse will give you final instructions.

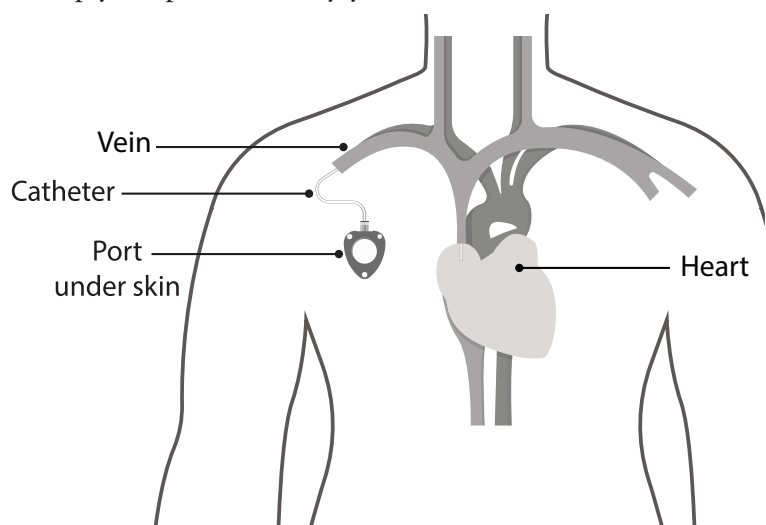
Questions?

- Contact your cancer care team by phone or via MyChart
- In an emergency, call 911 or go to your closest emergency department

What is a port?

A port is a small, round disc that a surgeon places under your skin. Usually, the surgeon will place it in the upper part of your chest. The port connects to a small tube that goes into a large vein.

The port lets you get blood draws, chemotherapy infusions, and blood transfusions without having an IV needle in your arm every time. It can make the process easier for you and your care team. You can keep your port for many years if needed.



Port Placement in the Upper Chest

How is the port placed?

A surgeon will place your port in the hospital. It is a minor procedure and you do not need to stay overnight. You get medicine to numb the area or may get medicine to put you to sleep.

When the port is in place, the surgeon will test to make sure it is working. To do this, the surgeon will put a special needle called a Huber needle through your skin and into the port. A salt water solution is then flushed through the port and into the catheter.

After, a gauze dressing will cover two small cuts in your skin. The cuts are closed in one of these ways:

- With cloth tape such as Steri-Strips
- With clear surgical glue such as Dermabond

Your cuts are closed with _____

Your surgeon today was _____

How do I take care of my new port?

Follow the instructions below based on how your cuts were closed.

If You Have Cloth Tape

Take the gauze dressing off yourself **48 hours** after the procedure. After 48 hours, you do not need to cover the port area with a dressing if you keep it dry.

For showering, cover the port area with plastic wrap or something to keep it dry for 5 days. You may take a bath, swim in a pool, or soak in a hot tub once the cuts are healed.

Let the cloth tape fall off by itself. Do not pull it off. Do not use ointments or herbal remedies on the area unless your surgeon says it is OK.

If You Have Clear Surgical Glue

Take the gauze dressing off yourself **24 hours** after the procedure. After 24 hours, you do not need to cover the port area with a dressing.

It is OK to shower after 24 hours. You may take a bath, swim in a pool, or soak in a hot tub once the cuts are healed.

Carefully remove loose pieces of the clear glue. Do not pull pieces that are stuck to your skin. Do not use ointments or herbal remedies on the area unless your surgeon says it is OK.

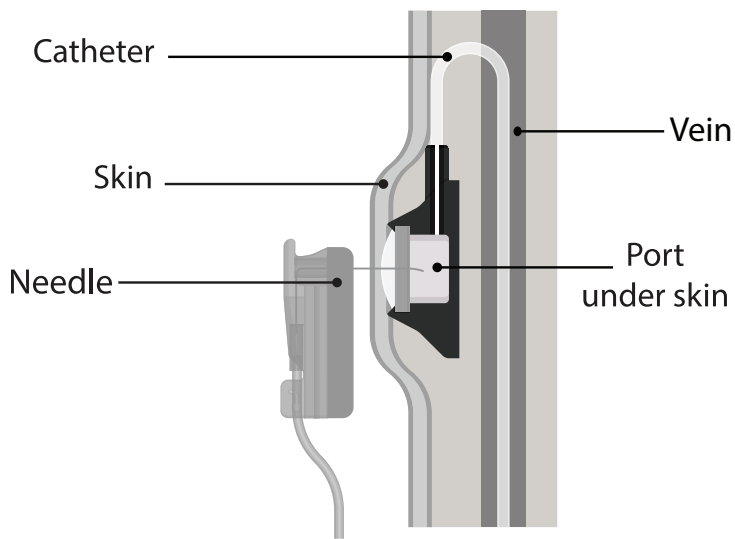
How is the port used?

Once your port is in place, it can be used right away. You don't have to wait for the cuts to heal unless your surgeon says to wait.

If you will get treatment the same day your port is placed, ask your surgeon to leave the Huber needle in for your treatment.

To access your port, your nurse will put a special needle called a Huber needle through your skin and into the port. The nurse will put a dressing over the area to keep it clean during treatment.

If you have pain when your port is accessed, your doctor can prescribe a cream called Emla cream that numbs the area.



Side View of a Port Access

How do I take care of my port?

Your port does not need special care once the cuts have healed. At your clinic visits, a nurse will flush your port and catheter with salt water and a drug called heparin at least once a month.

Heparin helps keep your port free of blood clots.

Let your care team know if you are allergic to heparin.

If you do not visit your clinic or have labs done at least once a month, you must make appointments to have your port flushed.

Without flushing, your port may not work properly and can cause issues.

Please make sure to have your port flushed at least once a month.

When and how is the port removed?

When your treatment is complete, you and your doctor decide the best time to have your port taken out. A surgeon will remove the port by numbing the area and making a small cut near the port to take it out. The cut is then closed and covered with a dressing.

Tips to Prevent Infection

Here are ways to take care of your port and help prevent infection:

- Do not leave the gauze dressing on longer than instructed above (48 hours if you have cloth tape and 24 hours if you have surgical glue).
- If you have cloth tape closures, cover them with plastic when showering. Wet tape can cause infection.
- If you have treatments or tests outside of Huntsman Cancer Institute, be sure the staff has experience with ports. If not, it is safer if they access your vein with an IV instead.
- Make sure medical staff who access your port follow sterile procedures:
 - Wash hands or use hand sanitizer right before caring for you
 - Wear a mask and gloves while getting ready to access your port
 - Scrub the access point with an alcohol swab for 15 seconds before inserting the special needle
 - Put a sterile dressing over your port area once the needle is in place (a mask and gloves are not required after the dressing is in place)

When should I call my doctor?

Call right away if you have any of these:

- Pain, redness, or swelling around the port
- Chills or fever above 100.3° F
- Dizziness or breathlessness
- Swelling, tenderness, or redness in your neck or arm

Contact Numbers

Doctor _____

Nurse _____

Phone _____

PA or NP _____

Phone _____

After hours or weekends: Call 801-587-7000 and ask for the cancer doctor on call.

Preparing for a CT Scan with Oral Contrast

You have an appointment for a computed tomography (CT) scan with oral contrast. Oral contrast is a liquid you drink before the scan. It makes the scan easier for your doctors to read.

This factsheet contains instructions to help you prepare for the CT scan.

Before the Scan

Get two bottles of oral contrast liquid from the radiology clinic on the 3rd floor of the Huntsman Cancer Institute hospital. The clinic staff will mark the bottles with times and amounts according to your scan time.

- You can pick up the bottles any day before your scan appointment. Keep them in the refrigerator until it is time to start drinking the contrast.
- If you pick up the bottles the same day as your scan, check with the radiology clinic 2 hours before the scan time.

Day of the Scan

- Do not eat or drink anything for 3 hours before the scan time.
- Start drinking the oral contrast 1½ hours before the scan time. Follow the schedule the radiology staff marked on the bottles.
- Check in at the radiology clinic 15 minutes before your scan time if you picked up the oral contrast before your scan day.

If You Have Questions

Call the radiology clinic at 801-587-4480. You can also call your cancer care team:

Medicines to Prevent or Treat Nausea

Your chemotherapy regimen is called: _____

You received these chemotherapy drugs today: _____

Take anti-nausea medicines as scheduled or as needed. Your nurse has marked the medicines you are taking.			
✓	Medicine Name	Possible Side Effects	Schedule/Other Instructions
	Zofran® (ondansetron)	constipation, headache, fatigue, dizziness	If you received Aloxi® after your infusion, do not take Zofran® for three days.
	Aloxi® (palonosetron)	constipation, headache, fatigue	You received this in the infusion room today. It lasts about 3-5 days.
	Decadron® (dexamethasone)	sleeplessness, heartburn when taken by mouth, increased appetite, hiccups	This helps other anti-nausea medicines work.
	Cinvantia® or Emend® (aprepitant)	diarrhea, fatigue, hiccups, constipation, headaches	
	Ativan® (lorazepam)	drowsiness, dizziness, fatigue	Swallow the pill or put it under your tongue. You can cut the pill in half for a smaller dose.
	Compazine® (prochlorperazine)	drowsiness, constipation, dry mouth, jitters	

Other important information

- Wash your hands often, especially before eating. Everyone around you should also wash their hands often.
- Drink enough fluids to keep your urine light yellow in color.
- Ask your care team if you want more information about ways to help with side effects of chemotherapy.
- Visit the Linda B. and Robert B. Wiggins Wellness and Integrative Health Center to learn about services such as acupuncture that can help with nausea. Stop by the first floor of the HCI Cancer Hospital North or call 801-587-4585.

When to call for help

- You are still sick to your stomach or throwing up after taking your medicine.
- You can't keep fluids down.
- Call RIGHT AWAY if your temperature is higher than 100.4°F (38°C).
- Call anytime you feel sick, even if your temperature is normal.

Monday-Friday 8 a.m.-5 p.m.

Call 801-585-0100. Ask for your doctor's nurse.

After hours, weekends, and holidays

Call 801-587-7000. Ask for the doctor on call.

Caregiver Burnout

What is caregiver burnout?

Caregiver burnout is a normal response to caring for a loved one who is sick. The effects of burnout are similar to feeling depressed.

Taking care of a person who has cancer takes time, work, and effort. Caregivers often forget to take care of their own physical and emotional health. In fact, studies show more than 50% of caregivers experience burnout.

What are signs of caregiver burnout?

People feel burnout differently, but it often has physical, emotional, and spiritual aspects:

- A feeling that something bad is going to happen
- Anger
- Anxiety
- Fatigue
- Hard time concentrating
- Hard time making decisions or problem solving
- Headaches
- Feeling tense
- Sleep problems
- Shaking or trembling
- Feelings of sadness or grief

It is important to know about caregiver burnout so you can recognize any signs. The more you know, the better you will be able to care for yourself and your loved one with cancer.

What can I do?

You can take steps to relieve stress related to caregiver burnout. Here are some tips:

- Ask for help. Family members, friends, and neighbors may be able to step in.
- Let someone else take over duties when they offer so you get a break.
- Talk it out. Consider meeting with a social worker or support group.
- Let yourself grieve—to cry, to feel numb, to be angry, or to feel however you are feeling.
- Pay attention to your health. Eat well, exercise, and get enough rest.
- Take things one day at a time. Understand you will have good days and bad days.
- Educate yourself. Knowing all you can about your loved one's cancer may help you feel more in control and help you set realistic expectations.

Huntsman Cancer Institute's Patient and Family Support social workers can help people experiencing caregiver burnout. To learn more or make an appointment, call 801-213-5699.

The Linda B. and Robert B. Wiggins Wellness and Integrative Health Center offers classes and services for caregivers, including art, acupuncture, cooking, massage, group fitness classes, and meditation. For more information, call 801-587-4585.

Helping Kids Cope when a Loved One Has Cancer

When a parent or loved one has cancer, a common first worry is “How are my kids going to react?” As a parent, you are the expert when it comes to talking with your kids about cancer. The information here might help at this challenging time.

Why Kids Need to Know

Children are very quick to notice stress in the family.

Many times their imagined fears are worse than what is really happening. Studies show that children need accurate information that is right for their age when a parent or loved one has cancer.

When Kids Need to Know

Talk to your child as soon as you feel comfortable. Children often feel hurt if they learn about a loved one’s illness from someone else.

What Kids Need to Know

Children and teens need to know when someone in the family has cancer. Your child will want to know where the cancer is in the body. It is important to use the word “cancer,” because it is different from other illnesses.

- Make sure your child knows he or she did not cause the disease.
- Explain that you cannot “catch” cancer.
- Let your child know that many people survive cancer.

Kids can learn and grow from a loved one’s illness. This challenge may help everyone in your family be more sensitive and kind. Getting through this stressful time can also bring a feeling of pride and self-worth for kids and grown-ups.

Ways You Can Help

Here are some ways to help kids cope when a parent or loved one has cancer:

Talk to Them

- Encourage your kids to ask questions without pushing them to talk if they do not want to.
- Ask questions that need more than yes-or-no answers.

Here are some examples:

- What is the most confusing part of mom’s cancer?
- What do your friends say to you about my cancer?

- Encourage your child to express thoughts and feelings.
- Share your own thoughts and feelings with your child.

Give Them Helpful Information

- Let your child know what to expect along the way. This will help your child prepare for changes that can happen because of the illness or side effects of treatment, such as hair loss.
- Help your child name grown-ups he or she can go to for support or to talk.
- Make sure your children know who will take care of them if you need to stay in the hospital.
- Avoid making promises you are not sure you can keep.
- Do not worry your kids with details they cannot do anything about such as money problems.

Manage Their Time

- Make simple changes to help focus on each other:
 - Sit down to meals together
 - Limit visitors
 - Turn off phones
- When the person with cancer is not feeling well, plan play dates or fun activities with others.
- Do your best to keep a regular structure and routine.
- Give your child options about extra chores or ways to help around the house.

The social workers of Huntsman Cancer Institute’s Patient and Family Support team are a resource for information about talking to your children about cancer.

Available Monday-Friday from
8 a.m.-4:30 p.m.

Call 801-213-5699 or visit
huntsmancancer.org/pfs

How a Chaplain Can Help

When you have cancer, you may want care for your spirit as well as your body. Chaplains can help. They listen to you. They support you when you need it, whatever your religion or spiritual path. Huntsman Cancer Institute chaplains are available to visit with you. Call the number below or talk with your care team to ask for a chaplain visit.

A Chaplain's Role in Your Treatment and Care

A chaplain can support you and your loved ones.

- Speaks up with your care team and loved ones for your well-being of spirit, emotion, and body
- Helps you talk with your loved ones and care team about your concerns and feelings
- Finds support and approaches to cope with stress and other concerns
- Helps resolve conflicts

A chaplain can help work through big questions.

- Gives you support for coping with grief and loss
- Helps you explore or manage feelings such as anger, fear, and guilt
- Helps you work through hard decisions
- Helps you define your quality-of-life goals
- Helps you prepare for the end of life

A Chaplain's Role in Faith, Religion, and Spirituality

Having cancer may open you to new thoughts about spirituality. A chaplain can help you:

- Explore your beliefs
- Find and talk about meaning in your life
- Talk with you about the experience of illness and suffering
- Hear confessions or regrets about thoughts, words, actions, or failures to act
- Find literature, sacred objects, or teachers to help your spiritual practice
- Do ceremonies important to you
- Arrange care for a loved one's body after death

If you belong to a church or follow a spiritual path, a chaplain can support your needs:

- Offer help with your spiritual practices
- Pray (aloud, silently, with others, or alone) for you or a loved one
- Read sacred texts or scriptures you choose
- Help connect you with local religious communities
- Help resolve separation from your faith community

For Spiritual Care Services, dial FAITH from your hospital phone or call 801-213-2484.

Adapted with permission from *Chaplaincy Interventions Defined*, Texas Medical Center Project, © Brent Peery

Nausea and Vomiting

How is nausea treated?

Nausea is treated with medicines called antiemetics. Sometimes it takes more than one medicine to get relief. Your health care team will help you find the best medicine for you. There are many types of antiemetics, so tell your doctor if your nausea is not under control within 24 hours.

What should I do if I have nausea?

- Fill your prescription for antiemetics.
- Take your antiemetics as prescribed.
- Eat five or six small meals during the day instead of one or two large meals.
- Choose foods that are low in fat.
- Choose cool foods rather than hot.
- Take medicine to control pain as prescribed.
- Breathe deeply and slowly to help ease nausea.
- Use distraction techniques such as walking, listening to music, watching a movie, or doing other activities you like.
- Turn lights low.
- Try fanning cool air on your face.
- Drink plenty of fluids.
- Take good care of your mouth. Brush your teeth three times a day and rinse with salt water solution.
 - Salt Water Solution
 - 1 cup warm water
 - 1/8 teaspoon salt
 - 1/8 teaspoon baking soda

YOUR DOCTOR CAN PRESCRIBE MEDICINE TO HELP EASE YOUR NAUSEA. BE SURE TO TELL YOUR CARE TEAM IF YOU NEED RELIEF.

When should I call my doctor or nurse?

Call your doctor if any of these happen:

- You can't keep down fluid for 24 hours.
- You have vomited more than six times in 24 hours.
- You still have nausea and vomiting after you take antiemetics.
- Your symptoms of nausea or vomiting do not follow their usual pattern.

Helpful Suggestions

- Keep track of when your nausea occurs, what seemed to start it, and what helps make it better.
- Give your health care provider a list of all medications you take. Some medicines can cause nausea.
- Have someone with you the first time you take your antiemetic. Some medicines to control nausea can make you feel sleepy.

The Linda B. and Robert B. Wiggins Wellness and Integrative Health Center at Huntsman Cancer Institute offers acupuncture, massage, and other services that can help control nausea and other cancer-related symptoms. Call 801-587-4585 for more information.

Diarrhea

What is Diarrhea?

Diarrhea means having more than four or five liquid bowel movements in a 24-hour period. Diarrhea that happens during cancer treatment has many causes:

- Bowel or stomach surgeries
- Infections
- Medicines such as chemotherapy, antibiotics, antacids, some anti-inflammatory medicines, and laxatives
- Radiation to the abdomen and pelvis
- Stress and anxiety

Things to Eat and Drink

- Drink plenty of water, clear broths, sport drinks, ginger ale, or teas without caffeine.
- Eat small meals that include applesauce, rice, toast, and pasta.
- Choose foods high in potassium such as potatoes, oranges, and bananas.
- Add fiber to your diet. Fiber absorbs the extra water and adds bulk to the stool. Try using fiber pills such as Fibercon and FiberChoice, but ask your doctor or nurse before taking anything.
- Ask your doctor or nurse if you should follow a clear liquid diet to give your bowels a rest for a day or two.

Things to Avoid

- Fruit juices with a lot of sugar
- Very hot or very cold liquids
- Caffeinated drinks such as coffee and cola
- Milk and milk products
- Alcohol
- Spicy foods
- Foods that cause gas such as broccoli and cabbage

How is Diarrhea Treated?

Some medicines can help with diarrhea caused by radiation or chemotherapy. They may not be safe to use with diarrhea caused by an infection. The treatment changes depending on the cause.

- Talk to your cancer care team before taking any medicine to treat your diarrhea.
- Do not take over-the-counter medicines such as Imodium® unless your cancer care team says to.

Skin Care and Comfort

These tips can help keep diarrhea from causing chapped skin:

- Keep your rectal area clean and dry. Wash with mild soap and water. Dry gently with a towel.
- Use alcohol-free baby wipes instead of toilet paper.
- Put on zinc oxide cream (products such as A&D® or Desitin®) to soothe your skin.

When should I call my doctor or nurse?

Call right away if any of these happen:

- Bloody diarrhea
- Diarrhea that lasts more than 24 hours
- A lot of pain or cramping in your stomach
- Fever greater than 100.3°F
- Sores or cracks on your rectum
- Signs of dehydration:
 - Dark-colored urine
 - Less urine than usual
 - Dizziness
 - Dry mouth
 - More thirst than usual

Contact your cancer care team via MyChart or call _____.

In an emergency, call 911 or go to your closest emergency department.

Managing Diarrhea for GI Cancer Patients

What is diarrhea?

Diarrhea is a common side effect of many gastrointestinal (GI) cancer treatments. These are signs of diarrhea:

- Your stool is loose or watery.
- You have many bowel movements.

How can I manage my diarrhea?

Get these medicines that help manage diarrhea:

- Imodium® (generic: loperamide) – 2 mg tablets or capsules, available without a prescription
- Lomotil – prescribed by your doctor

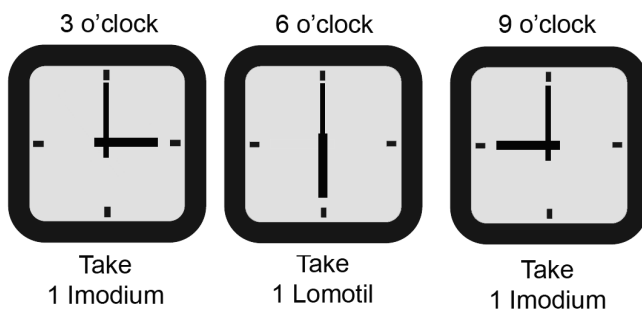
Take the medicines according to this schedule:

1. Take 2 Imodium pills by mouth at the first sign of diarrhea. Then take one pill every 2 hours if you keep having loose stools. Do not take more than 8 pills in 24 hours.

Stop taking Imodium when you have no diarrhea for 12 hours. If diarrhea starts again after 12 hours, repeat step 1.

2. Taking Imodium alone may not stop your diarrhea. If you keep having 3 or more loose stools per day **after repeating step 1**, take 1 Lomotil pill and wait 3 hours. Then take 1 Imodium pill and wait 3 hours.

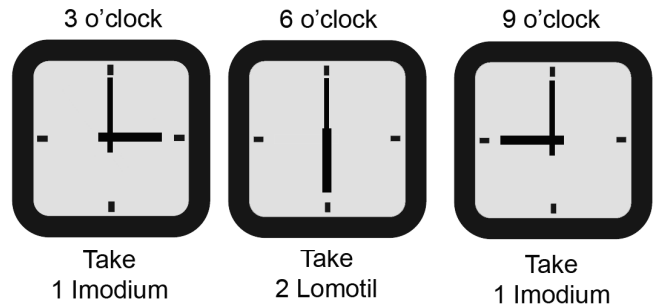
For example:



Stop taking both Imodium and Lomotil when you have no diarrhea for 12 hours. If diarrhea starts again, repeat step 2.

3. If you keep having 3 or more loose stools per day **after repeating step 2**, take 2 Lomotil pills and wait 3 hours. Then take 1 Imodium pill and wait 3 hours.

For example:



Do not take more than 8 Lomotil pills in 24 hours. If you have had no bowel movement since taking the last pill, stop taking both Imodium and Lomotil.

If diarrhea starts again, repeat step 3.

Questions?

Contact your cancer care team via MyChart or call

_____.

In an emergency, call 911 or go to your closest emergency department.

How to Avoid Being Constipated

About Constipation

Constipation is when it is difficult to have a bowel movement and stool becomes hard and dry.

Why Constipation Happens

The normal function of the large intestine, which is also called the large bowel or colon, is to absorb liquid from the digestive tract.

Even when you don't have a bowel movement, the colon keeps doing its usual job of removing liquid. This makes the stool hard and difficult to pass.



Large intestine, or colon, in the human body

These are reasons the bowel may slow down:

- Taking narcotics or pain medicines
- Using some anti-nausea medicines
- Being dehydrated
- Eating or drinking less than usual
- Having surgery in the abdomen area

How to Keep From Getting Constipated

- Stay hydrated. Drink enough water, juice, sports drinks, soups, or other liquids to keep your urine a light yellow color.
- Avoid drinks that have caffeine or alcohol. They can make you more dehydrated.
- Be as active as you can. Ask your health care provider what is safest for you, or make an appointment with our cancer exercise specialists.
- Eat a healthy diet that includes fruits, vegetables, and fiber. Make an appointment with our dietitians to help figure out what's right for you.

The Linda B. and Robert B. Wiggins Wellness and Integrative Health Center at Huntsman Cancer Institute offers one-on-one fitness and activity plans, nutrition counseling, and more. Call 801-587-4585 or visit www.huntsmancancer.org/wellness.

Be sure to check with your nurse or doctor before taking any medicines for constipation, especially medicines that go in the rectum.

If You Do Get Constipated

Taking a stool softener or laxative and drinking prune juice or warm liquids can help.

- Stool softeners make bowel movements more comfortable. These are not laxatives. The medicine name is docusate sodium. There are many brand names, so check with your nurse or pharmacist to make sure you get what you need.
- Laxatives make the bowel move faster. Senna (sennosides) and/or Miralax® (polyethylene glycol) are commonly recommended.

Take 1 or 2 senna tablets up to 3 times a day

OR

Take ½ to 1 dose of Miralax® (or a generic brand) up to 3 times a day

- Senna-S is a combination of senna laxative and docusate sodium. Some people like the laxative and stool softener in one pill.

Everyone is different. The correct combination of softeners and laxatives is the one that helps you have a comfortable bowel movement every 1 or 2 days.

- Write down what you take.
- Be sure to tell your doctor and nurse what you take.

Managing Constipation for Gastrointestinal Cancer Patients

What is constipation?

Constipation is a common side effect of many gastrointestinal (GI) cancer treatments. You have constipation when any of these things happen:

- Your stool is hard.
- It is difficult to pass a bowel movement.
- It has been more than 36 hours since your last bowel movement.

How can I manage my constipation?

You can get stool softeners and laxatives at the drugstore.

- Senna-S
- MiraLAX™
- Milk of Magnesia

Follow this schedule to help manage constipation:

1. Take 2 tablets of Senna-S twice a day, morning and night. If you do not have a bowel movement after 24 hours, move to step 2.
2. Keep taking Senna-S as in step 1. Add MiraLAX® once a day. Follow the directions on the bottle. If you do not have a bowel movement within 24 hours of taking MiraLAX, move to step 3.
3. Keep taking Senna-S and MiraLAX as in step 2. Add 2 tablespoons (30 mL) Milk of Magnesia at bedtime.

If you still do not have a bowel movement after taking Milk of Magnesia, call your nurse at the number below.

Your nurse may recommend other medicines from the drugstore. If they do not help, the nurse will ask you to come to the clinic for an enema. Your doctor may also prescribe stronger medicine, if you need it.

If the medicines give you watery or loose stools (diarrhea), stop taking them until diarrhea goes away for 24 hours.

If you do not have a bowel movement within another 24 hours, start again with step 1. Move to steps 2 and 3 if needed.

Questions?

Contact your cancer care team via MyChart or call

_____.

In an emergency, call 911 or go to your closest emergency department.

Mucositis

What is mucositis?

Mucositis is sores or swelling inside the mouth. This is a common side effect of chemotherapy, radiation therapy, and bone marrow transplant.

It is important to eat well during cancer treatment and have good oral hygiene to help prevent mouth sores.

What should I do if I have mucositis?

- Ask your health care provider about medicine you can apply directly to the sores to ease the pain.
- Drink at least 8 to 10 cups of liquid each day.
- Brush your teeth three times a day with a soft toothbrush. If the toothbrush is too hard on your gums, try using swabs or gauze.
- Rinse your mouth with a salt water solution (see below) four times a day.
 - Salt Water Solution
 - 1 cup warm water
 - 1/8 teaspoon salt
 - 1/8 teaspoon baking sodaSwish and spit small amounts and then rinse your mouth with plain water.

How is mucositis treated?

Your health care team can help decide the best treatment, which may include some of these:

- Pain medicine
- Antifungal medicine
- Changes in your chemotherapy or radiation treatment

IF YOU FEEL SICK, TAKE YOUR TEMPERATURE. CALL YOUR DOCTOR OR NURSE IF YOU HAVE A TEMPERATURE OVER 100.3°F.

Helpful Suggestions

- Eat foods cold or at room temperature.
- Eat soft foods such as ice cream, eggs, custard, mashed potatoes, bananas, rice, and pasta.
- Eat well-cooked protein such as chicken.
- Use fluids to soften hard foods.
- Use a mouth moisturizer such as Biotene®, which is available at many pharmacies.
- Use lip balm.
- Avoid things that can irritate the mouth such as alcoholic beverages, spicy or acidic foods, tobacco products, and mouthwashes.
- Carry a water bottle with you. Drinking plenty of water helps keep the mouth moist.

If you are neutropenic and at risk of infection, make sure to ask your doctor or nurse about the foods that are best for you. Registered dietitians in the Linda B. and Robert B. Wiggins Wellness and Integrative Health Center can also help you make a diet plan. Call 801-587-4585 to make an appointment or for more information.

When should I call my doctor or nurse?

Call if any of the following things happen:

- If you have difficulty breathing.
- Your mouth does not heal or gets worse.
- You have white patches on your lips, gums, or tongue.
- You have a fever over 100.3°F

Doctor's Number: _____

Bleeding Problems

Some types of cancers and cancer treatments can cause you to have too few platelets in your blood. Platelets are cells that clump together to clot blood, which stops bleeding when you are hurt. Not having enough platelet cells gives you a higher risk of bruising or bleeding, even without an injury.

What should I do if I have low platelets?

- Use a very soft toothbrush.
- Blow your nose gently with soft tissue. Your healthcare provider may ask you to not blow your nose at all.
- Take extra care to prevent cuts or nicks when using needles, knives, scissors, or tools.
- Switch to an electric razor to avoid the risk of shaving cuts.
- Protect your hands with gloves when gardening.
- Use extra caution near heat sources such as irons, stoves, barbecue grills, and heating pads.
- Tell your health care provider if you are constipated. He or she may recommend a stool softener to be taken orally. Avoid straining to have a bowel movement.

What should I avoid?

- Don't use dental floss or toothpicks.
- Don't pick pimples or scabs.
- Don't play sports that have a risk of getting hurt.
- Don't put anything in your rectum, not even a thermometer or medicine.
- Don't use tampons. Use pads for feminine hygiene.

Talk with your health care provider

- Ask if it is safe for you to take aspirin or products that contain aspirin. Aspirin interferes with the platelets' ability to stop bleeding. It should generally not be used if your platelet count is low.

- Ask if it is safe for you to use pain relievers such as ibuprofen and naproxen (products such as Aleve®, Advil®, Motrin®). Acetaminophen (Tylenol®) is usually safe if your platelet count is low, but ask first.
- Tell them all the vitamins, herbal supplements, and over-the-counter medicines you take.
- Check with them before drinking alcohol.

Talk to your doctor or nurse before taking any medicines, vitamins, or herbs.

How are bleeding problems managed?

- You may have more frequent blood tests to monitor the amount of platelets in your blood.
- Your chemotherapy treatment may be delayed while your body builds platelets.
- Your health care provider may prescribe a platelet transfusion to build your platelet level.

When should I call my doctor?

Call if you develop any of these symptoms:

- Black or bloody stools
- Bleeding from your gums
- Blood in the urine, or reddish or pink urine
- Changes in vision
- Easy bruising
- Nosebleeds that do not stop within 15 minutes
- Severe headaches
- Small red spots under the skin
- Vaginal bleeding that is new or lasts longer than your regular period

Doctor's Number: _____

Post-Transfusion Instructions

Your blood transfusion should be a beneficial experience and you should feel better after this therapy.

Transfusion Reactions

Some people may have an adverse reaction to the blood products they receive.

Here are some signs of a possible transfusion reaction:

- Fever higher than 100.4° F (38°C) degrees
- Chills
- Trouble breathing
- Nausea or vomiting
- Red flush on face, hives, rash, or itching
- Weakness or fainting
- Red or brown urine or less urine than usual
- Pain or oozing where the IV was
- Pain in the chest or lower back

If any of these problems happen within 48 hours of your transfusion, contact your cancer care team via MyChart or call _____.

In an emergency, call 911 or go to your closest emergency department.

Other Signs to Watch For

Diseases caused by a transfusion are very rare. The signs may not appear for several months. Call your doctor if you develop any of these signs:

- Fatigue
- Loss of appetite
- Dark urine even when you drink plenty of fluid
- Yellow color in skin or eyes
- Nausea or vomiting
- Diarrhea that does not get better
- Pain in the belly that does not go away

You can also call your infusion center Monday-Friday from 7:00 a.m. until 7:00 p.m. Call the number checked below:

- Main infusion center at the cancer hospital
801-587-4485
- Bone Marrow Transplant (BMT) infusion
801-587-4485
- Sugarhouse Health Center infusion
801-213-9087
- Farmington Health Center infusion
801-213-6352
- South Jordan Health Center infusion
801-213-5192

Instructions to Follow at Home

Medicines _____

Activity _____

Follow-up _____

Instructed by _____ Date _____

Neutropenia

What is neutropenia?

Neutropenia means that a person has a low amount of neutrophils, a special white blood cell. White blood cells help your body fight infection. Chemotherapy or radiation therapy may cause neutropenia. Your risk of infection is higher if you have a low amount of white blood cells.

What is febrile neutropenia?

Febrile neutropenia is having a fever when you have a low amount of white blood cells in your body. This is very serious. Febrile neutropenia needs immediate medical attention. Do not take any medicine to treat your fever until you have been directed by your treatment team. This includes over-the-counter pain or fever reducing medicine.

Important Facts

- You are neutropenic when the amount of white blood cells in your body is low.
- When you have neutropenia, a simple infection is dangerous to your health.

Preventing Infection During Neutropenia

- Wash your hands often with soap, especially before eating, after using the bathroom, and after sneezing, coughing, or blowing your nose.
- Keep up your daily personal hygiene habits—bathing, showering, brushing teeth—even when you feel tired or sick.
- Do not put anything in the rectum—no enemas or suppositories.
- Women should not use tampons, vaginal suppositories, or douches.
- Avoid constipation. Ask your doctor or nurse if you should use a stool softener.
- Take your temperature if you feel sick.

Other Ways to Help Prevent Infection:

- Avoid large crowds and sick people.
- Talk with your doctor about getting yearly flu vaccines (avoid nasal spray vaccines).
- Stay away from children who recently had live virus vaccines such as the chickenpox vaccine.
- Wash fresh fruit and vegetables before eating.
- Avoid being near fresh-cut flowers or other sources of standing water that can have bacteria.

When should I call my doctor or nurse?

- If your fever is greater than 100.3°F, call your doctor or nurse right away.
- Call your health care provider if you have any of these symptoms:
 - Shaking chills or feeling like you have the flu
 - Sore throat or coughing
 - Burning or pain when you pee
 - Red or swollen area on the body

When you are neutropenic, you may get a fever even without an infection. Medical tests can tell if you have an infection or not.

If you do have an infection, your health care provider may give you antibiotics to treat it, and may also give you a medicine to boost blood cell growth.

If you are very sick, you may need to stay at the hospital to receive antibiotics through a vein in your arm.

Fever During Chemotherapy Treatment

Cancer patients need to be extra careful when they get a fever. Fever is a higher than normal body temperature. It can be a sign that you have an infection. Often it is the only sign. An infection that happens when you are taking chemotherapy (chemo) can be life-threatening.

What to Do

Keep a fever thermometer nearby and know how to use it. You can buy a thermometer at any drugstore.

Take your temperature every 2–3 hours any time you feel any of these things:

- Warm
- Flush
- Chilled
- Unwell

Write down your temperature each time you take it. This information can help your cancer care team.

If your temperature is 100.4°F (38°C) or higher, call your cancer care team right away and follow their instructions.

Do not take any medicine to lower your temperature unless your cancer care team says it is OK.

If you cannot reach your cancer care team or the Huntsman Cancer Institute oncologist on call, go to the emergency room right away. Be sure to tell the person checking you in that you are a cancer patient taking chemo.

Other Signs to Watch For

You may also notice other changes that could be signs of infection:

- Feeling more tired than usual
- Headache
- Sore throat
- Body aches
- Rashes on skin
- New redness or swelling
- Pus or yellow fluid coming from a wound
- New cough or shortness of breath
- New belly pain
- Pain when urinating

If you have any of these signs along with fever, tell your cancer care team.

Reaction to Chemotherapy

Some patients get fever and other flu-like signs such as body aches and headaches as a side effect of chemo. Your cancer care team cannot tell whether your fever comes from an infection or a side effect without seeing you. **Be sure to call your team any time you have a temperature 100.4°F (38°C) or higher.**

If your temperature is

100.4°F (38°C) or higher,

call your cancer care team right away—day or night.

Contact your cancer care team via MyChart or call _____.

In an emergency, call 911 or go to your closest emergency department.

Tell them you are a cancer patient taking chemotherapy.

Taste and Smell Changes During Cancer Treatment

Cancer and its treatments may change your sense of taste and smell. How foods taste can change from day to day. This can affect your appetite. Choose foods that look and smell good to you. Try experimenting with new foods, marinades, spices and ways of preparing what you eat. Here are some hints that can help your food taste and smell better.

First, you may want to try rinsing your mouth before each meal with the following solution: Dissolve $\frac{3}{4}$ teaspoon salt and 1 teaspoon baking soda in 1 quart of water.

It is also important to practice good oral hygiene.

If Food Has No Flavor

- Use herbs such as mint, basil, oregano, tarragon, and rosemary. Spices such as cinnamon, nutmeg, and paprika can also add flavor.
- Add onion, garlic, ginger, or other seasonings.
- A small amount of butter or other fat can help food taste better.
- A few drops of lemon juice can also brighten the taste of your food. Try marinating your meat in acids such as orange juice or vinegar.
- Use condiments such as barbecue sauce, ketchup, and mustard.
- Try recipes that include vinegar and cooking wine.
- Add fruit to meals or smoothies. Tart fruits may have a better flavor such as citrus fruits and berries.
- Try eating frozen fruit to enhance your taste buds.

If Food Tastes Too Sweet

- Citrus can make foods taste less sweet. Start by adding 5–10 drops of lemon or lime juice. You can add more until the sweet taste is less noticeable.
- Eat salty foods with sweet foods. You can also add a dash of salt to food that is too sweet.
- Add buttermilk, plain yogurt, extra milk, or instant coffee powder to milkshakes or prepared nutritional drinks.

If Food Tastes Too Bitter

- Eat sweet fruits such as melons, mango or cherries with meals.
- Add small amounts of molasses, maple syrup, or agave nectar to your food.
- Use fresh fruits and vegetables in recipes.
- Try cold dishes. They may taste better than hot foods.

If Food Tastes Too Salty

- Try adding $\frac{1}{4}$ teaspoon lemon juice.
- Adding a little sugar may make some foods taste less salty.
- Limit processed, high-salt foods such as chips.
- Use salt-free seasonings and spices.

If Food Tastes Metallic

- Use plastic utensils instead of metal.
- Add fats such as butter or nut butter.
- Try adding sweetener such as molasses, agave nectar, or maple syrup.
- Adding a few drops of lemon juice to your foods may also help.
- If meat doesn't taste the way you remember, try other protein foods such as cheese, cottage cheese, yogurt, beans (examples: black, pinto, lima, red, navy), fresh fish, poultry, nuts, and eggs.
- You can also try water flavoring drops or infusing your water with fresh fruit, mint or combination of both.

If Food Leaves an Aftertaste

- Clean your mouth with a soft toothbrush and gentle toothpaste.
- Use gum, candy, or mints after eating. This will help with aftertastes and keep your mouth moist.
- Sip on orange juice, pineapple juice, lemonade, or limeade after meals.
- Drink plenty of water.

If Food or Drinks Smell Unpleasant

- Choose foods that don't need to be cooked such as cold sandwiches, yogurt and fruit, or cold cereal and milk.
- Serve foods cold or at room temperature. Hot foods can smell stronger.
- Cover drinks with a lid and drink through a straw.
- If possible, stay out of the kitchen while food cooks.
- Use a kitchen fan when cooking.
- Try cooking outdoors.
- Eat in a cool, well-ventilated place where no food is cooking.

The registered dietitians at Huntsman Cancer Institute's Linda B. and Robert B. Wiggins Wellness and Integrative Health Center provide personalized nutrition counseling for patients with all types of cancer.

For more information about taste changes or to make an appointment, call 801-587-4585.

Eating Well During Cancer Treatment

Eating well is important when you are being treated for cancer. Good nutrition helps you feel better, raises your energy level, and can help lower the side effects from your cancer treatment.

Getting enough fluid is part of eating well. Try to drink at least 64 ounces (8 cups) of liquids without caffeine every day.

Getting enough liquid is an important part of good nutrition. Try to get at least 64 ounces (8 cups) of liquids without caffeine each day unless your cancer care team gives other directions. These things can count as part of the 64 ounces:

- Juice
- Soup
- Milk
- Sports drinks
- Popsicles
- Other drinks

Managing Side Effects

Some cancer treatments can make it hard to eat. You may have nausea. Foods may taste different. Your mouth and throat may be sore. You may feel too tired to make meals. Here are some tips that can help.

Nausea and Vomiting

- Have several small meals each day. Set timer for every 2-3 hours. Eat slowly.
- Relax after meals to help food digest, but do not lie down. Loosen your clothes. Breathing fresh air can help ease nausea.
- Avoid or limit foods with strong odors. Limit fried or spicy foods.
- Eat foods cold or at room temperature.
- When you have nausea, eat dry, bland foods such as crackers or toast.
- Do not eat your favorite foods when you have nausea. Eat them when you feel well.

Taste Changes

- Brushing your teeth or rinsing your mouth before eating may help.
- Use different seasonings, herbs, and spices.
 - Try adding basil, onion, garlic, and other flavors.
 - Try different flavors such as sour, bitter, tart, or sweet to see what tastes best. Try adding vinegar, lemon, lime, and orange to meals.
- Some foods may taste bitter or like metal. Sugarfree lemon drops, gum, or mints may help.
- If food tastes like metal, try using plastic or wood utensils.
- See the factsheet *Taste Changes during Cancer Treatment* for more ideas.

Sore Mouth or Throat

- Drink plenty of liquids. If your mouth is sore, use a straw.
- Choose soft, moist foods. Add extra gravies, cream sauces, or butter to meals. Cook food until it is soft and tender.
- Eat cold foods to help soothe your mouth and throat.
- Avoid citrus fruits and juices, spicy or salty foods, and rough, coarse, or dry foods.
- Rinse your mouth often. Ask your dentist about gentle cleaning products for your teeth and gums.

Fatigue

- When you have the energy, make and freeze meals to eat later.
- Let friends or family members cook for you.
- Keep snack foods on hand.
- Use plates and dishes you can throw away to save clean-up time.
- Make sure to keep hydrated and drink adequate fluids to help prevent dehydration which can lead to more fatigue.

Constipation

- Eat plenty of high-fiber foods such as whole grains, fruits, and vegetables.
- Eat at least five servings of fruits and vegetables every day.
- Add fiber to your diet slowly over 8 weeks with a goal of eating 25-38 grams of fiber each day.
- Drink plenty of liquids. Prune juice may help.
- Take walks and do light exercise often. *Check with your doctor before starting any exercise program.
- Ask your cancer care team before you take any stool softeners or laxatives.

Diarrhea

- Eat less high-fiber food such as whole grains, fruits, and raw vegetables.
- Eat several small meals each day.
Eating certain foods can help:
 - Applesauce
 - Potatoes
 - Bananas
 - Rice
 - Pasta
 - Toast
- Limit foods that can give you gas such as gassy vegetables, greasy, fried, or spicy foods.
- Drink plenty of liquids between meals.
- Try eating less milk and milk products such as ice cream, cheese, and yogurt.
- Ask your cancer care team if a soluble fiber supplement such as Metamucil® would help.

Weight Loss

- Try to eat four to six small meals each day. Set an alarm for every 2-3 hours.
- Plan ahead and keep snacks in your car, purse, or backpack.
- Eat slowly and take breaks during meals.
- If you get full too fast at meals, don't drink at mealtime. Drink liquids between meals instead.
- When you have a good appetite, make the most of it. Appetite is often best in the morning, so try to eat more at breakfast.

- Add protein to your diet with foods such as cheese, yogurt, milk, cottage cheese, nuts, seeds, peanut butter, meats, and beans.
- Put extra calories in food you already eat by adding one or more of these:
 - Butter or margarine
 - Mayonnaise
 - Honey
 - Peanut butter
 - Creamer
 - Powdered milk
- Be creative. Try making milkshakes or smoothies packed with protein and calories. See the factsheet *High-Calorie, High Protein Recipes* for ideas.
- Use a supplement such as Carnation Breakfast Essentials, Boost, or Ensure.

Call your cancer care team or Registered Dietitian if these tips do not help your nausea, constipation, diarrhea, or weight loss.

For More Information

Patient Education Resources

hci-portal.hci.utah.edu/sites/factsheets

Click on the Food and Nutrition icon to find the factsheet *High-Calorie, High-Protein Recipes*. The National Cancer Institute booklet "Eating Hints" is also here.

Linda B. and Robert B. Wiggins Wellness and Integrative Health Center

801-587-4585

The Wellness Center offers free counseling with registered dietitians for patients with all types of cancer. Call for more information or to make an appointment.

G. Mitchell Morris Cancer Learning Center

Visit the 6th floor of the cancer hospital

Call 1-888-424-2100

Email cancerinfo@hci.utah.edu

Text 801-528-1112 (text only)

The Cancer Learning Center has free cancer resources in their lending library and cancer information specialists who can help find what you want to know.

Peripheral neuropathy is damage to the nerves in the arms and legs. Some chemotherapy drugs can cause it. It may take as long as 18 months after chemotherapy for peripheral neuropathy to get better. Sometimes, it does not go away completely.

Signs of Peripheral Neuropathy

Peripheral neuropathy happens in the fingers, hands, toes, and feet. Here are signs to watch for:

- Burning
- Tingling
- Numbness
- Feeling like walking on clouds
- Unsteadiness when you stand or walk
- Dropping things from your hands
- Less ability to feel heat and cold

If you have any of these signs, talk with your care team.

Sometimes certain medicines taken together may cause peripheral neuropathy. Tell your care team about all the medicines you take. Be sure they know about herbal and over-the-counter products, too.

Helpful Tips

Protect your hands and feet from very hot and very cold temperatures. Burns or frostbite can happen when you cannot feel heat and cold.

Wear gloves to protect your hands when you wash dishes or garden. Also wear gloves to keep your hands warm in cold weather.

Use a thermometer instead of your hand or foot to check the temperature of your bath water.

Wear socks and shoes with closed toes to protect your feet.

Choose shoes with soles that do not slip.

Be extra careful when using knives, scissors, nail clippers, or tools.

Use nonslip bath mats in the tub or shower to prevent falls.

Keep rooms well-lit.

Keep loose rugs, toys, and other items that might cause you to fall off your floors.

Treatment

Your care team may recommend one or more of these ways to help:

- Exercise, massage, and relaxation
- Creams to put on your skin
- Acupuncture
- Prescription medicines
- Changes in your cancer treatment

When Should I Call My Care Team?

Call your care team if any of these things happen:

- You have trouble tying your shoes, buttoning your clothing, or other tasks for daily life.
- You trip, fall, or feel unstable on your feet.
- You notice changes in how your hands or feet work.
- Your signs of peripheral neuropathy get worse.

Helpful Huntsman Cancer Institute Services

Massage, acupuncture, fitness, and exercise classes

Linda B. and Robert B. Wiggins Wellness and Integrative Health Center

Call 801-587-4585

Visit www.huntsmancancer.org/wellnesscenter

Help with relaxation, meditation, and other coping skills from our social workers

Visit www.huntsmancancer.org/pfs

Hand-Foot Syndrome

What Is Hand-Foot Syndrome?

Hand-foot syndrome is a side effect of some types of chemotherapy. Hand-foot syndrome happens when a small amount of the drug in tiny blood vessels leaks into the surrounding skin.

There are many drugs that can cause hand-foot syndrome. Some examples include:

- Capecitabine (Xeloda®)
- Cytarabine
- Liposomal doxorubicin (Doxil®)
- Doxorubicin (Adriamycin®)
- Fluorouracil
- Sorafenib (Nexavar®)
- Sunitinib (Sutent®)
- Pazopanib (Votrient®)
- Vemurafenib (Zelboraf®)

Not everyone who takes these drugs will get hand-foot syndrome. Hand-foot syndrome may occur within weeks of starting treatment, but may also take months to occur.

Signs of Hand-Foot Syndrome

Watch for these signs in the soles of your feet and palms of your hands:

- Blisters
- Burning
- Peeling
- Pain
- Redness
- Swelling
- Tingling

Preventing Hand-Foot Syndrome

Exposing your hands and feet to hot temperatures, friction, and chemicals can trigger hand-foot syndrome or make it worse if you already have it.

Follow these tips:

DO

- Avoid hot water on your hands and feet. Use warm water to wash. Take warm showers or baths.
- Pat dry with a towel to prevent friction.
- Gently rub thick moisturizing cream on your hands and feet each day. Use a cream without alcohol or perfumes. At bedtime, use a thick layer of moisturizing cream and cover the hands and feet with cotton gloves and socks while you sleep.
- Elevate hands and feet when you can.
- Wear loose clothes and shoes that let air move around your feet.
- If you need to wear rubber gloves, make sure they have an inside lining.
- Talk with your cancer care team about using ice packs on wrists and ankles during chemotherapy.

DON'T

- Don't let your skin get hot. Avoid hot tubs, saunas, and sitting in the sun.
- Don't do things that cause too much force or friction. These include home chores such as sweeping and mopping. Also avoid jogging, aerobics, and racquet sports.
- Don't use harsh cleaning chemicals.
- Don't use tools that require hand force, such as screwdrivers and knives.
- Don't carry heavy objects such as grocery bags.

When Should I Call My Doctor?

Call your cancer care team right away if you see any signs of hand-foot syndrome. They can help with treatment and pain relief.

Skin Care During Chemotherapy

Some chemotherapy drugs can cause changes to your skin or nails. These changes can include the following:

- Itching, dryness, redness, rashes, and peeling
- Acne-like rash
- Increased sun sensitivity
- Darkened, yellowed, brittle, and cracked nails
- Darkened veins in the area where the chemotherapy goes, if the chemotherapy is given through your vein

Let your doctor or nurse know if you have any of these changes.

Here are some suggestions to help relieve skin problems caused by chemotherapy.

Itching, dryness, redness, rashes, and peeling

- Drink plenty of water.
- Avoid long, hot showers. Limit tub baths to less than 30 minutes. Use lukewarm water and mild soap. Gently pat skin dry with a soft towel.
- Avoid soaking in hot tubs or spas. They can increase the risk of infection from bacteria.
- Use a moisturizing lotion for sensitive skin over your entire body. Put it on while your skin is damp from a bath or shower, and reapply often.
- Choose body care and cleaning products (soap, shampoo, lotion, and laundry detergent) that are free of dye, alcohol, and perfume.
- Do not wear perfumes, colognes, and aftershaves.
- Choose loose-fitting clothes and bed sheets made of soft cotton.

Acne-like rash

- Do not use acne skin care products. They can make the rash worse.
- Do not pick at or pop the pimples the rash. This can make it worse or cause an infection.
- Keep your face clean. Use gentle cleaners for sensitive skin. Your doctor may recommend medicated creams or soaps.
- Use lotions for sensitive skin. Avoid creams with mineral oil, petrolatum, or lanolin.
- Use SPF 30 or higher sunscreen when outside.
- If you wear makeup, be sure it is for sensitive skin.

- Use a mild shampoo if the rash is on your scalp.
- Do not shave areas that have the rash.
- If your doctor prescribes an antibiotic, it is important to take it as directed.

Sun sensitivity

- Avoid direct sunlight. Stay in the shade as much as possible when outdoors.
- Wear protective clothing outdoors, including long pants or skirts, long-sleeved shirts, and a wide-brimmed hat.
- Do not use a tanning bed.
- Use SPF 30 or higher sunscreen every two hours when outdoors. Remember to put it on the back of your neck, the tops of your feet and ears, and the top of your head if you have no hair.
- Use SPF 15 or higher lip balm.

Dark, yellowed, brittle, or cracked nails

- Wear protective gloves when washing dishes, gardening, or doing housework.
- Keep fingernails and toenails clean and trimmed. You may use products that strengthen nails as long as they do not cause irritation.
- Do not bite your nails.
- Do not use artificial nails.
- Do not wear tight-fitting socks and shoes.
- Moisturize your hands and feet often with a lotion or cream for sensitive skin.
- Tell your cancer care team if you have painful, red areas on your fingers or your toes. This may be a sign of infection.

Using Pain Medicine Safely

Take your medicines exactly as your doctor directs.

Mistakes, misuse, or overdosing can cause serious health problems or death.

Pain medicines can help you live comfortably day to day. They manage pain, but they cannot always take it away entirely.

Prescription pain medicines are very strong drugs. Taking too much can cause serious side effects or death. Lowering your dose too quickly may make you feel very sick. This is withdrawal.

Pain Medicine Side Effects

- Drowsiness
- Confusion
- Dry mouth
- Nausea
- Vomiting
- Constipation

Prevent Side Effects

- Take your pain medicine with food.
- Drink plenty of water.
- Take a stool softener if needed.

Avoid Overdose and Accidents

Overdose is when you take too much of a medicine. Overdose with pain medication can be dangerous.

- Watch for the signs of pain medicine overdose:
 - Severe sleepiness
 - Difficulty waking up
 - Trouble breathing
 - Confusion
 - Blue lips or fingernails
 - Cool, moist skin
- When you are taking prescription pain medicines, do NOT drink alcohol. Mixing the two can be deadly.
- When you are taking prescription pain medicines, do NOT drive or operate machines.

- Never take more than 3,000 mg of acetaminophen in 24 hours. Taking more than that may damage your liver. Many medicines have it. These include Tylenol®, Lortab®, Vicodin®, Percocet®, as well as many over-the-counter products, especially those for colds. If you are not sure if a medicine is safe for you, ask your doctor or pharmacist. **Take your medicines exactly as your doctor directs.**

Avoid Misuse

- Keep all your medicine in a safe, secure place. Make sure small children cannot get to it. They often think pills are candy. Other people may be tempted to steal or abuse your medicines.
- Never share your medicines. Never take someone else's medicines. This is illegal, and it can be deadly.
- Never take medicines after the expiration date on the label.
- University of Utah Health Pharmacies have 12 areas where you can get rid of your medicines that you no longer need. Bring any medications to our drop off bins to get rid of them safely. For more details and locations visit <https://healthcare.utah.edu/pharmacy/medication-disposal.php>. Your local police station can also tell you how to get rid of them safely. NEVER pour medicines down the drain or toilet.
- Tell your doctor all the supplements, vitamins, and medicines you take. Pain medicines can be dangerous when mixed with other medicines or supplements.
- Use the same pharmacy for all your prescriptions. Your pharmacist can tell you more about medicines you should not combine. They can explain how to take your pain medicine safely.

If you suspect an overdose, call 911 immediately!

Insomnia

What is insomnia?

Most adults need between 7 and 8 hours of sleep each night. Anyone can have 1 or 2 sleepless nights. When you can't fall asleep or stay asleep most nights, you may have insomnia. Not getting enough sleep can cause problems including:

- Stress
- Memory and decision-making issues
- Increased pain
- General poor health

Who gets insomnia?

Insomnia is common or likely to occur in people with one or more of these traits:

- Female
- Age 50 or older
- History of sleep problems

Other issues contributing to sleeping difficulties:

- Irregular sleep schedule or napping during the day
- A partner who snores or noise
- Consuming caffeine 4-6 hours before bed
- Alcohol or tobacco
- Mental problems such as stress or anxiety
- Medical conditions such as cancer

Cancer can make it hard to sleep. Pain, anxiety, night sweats, and problems with digestion or breathing may keep you awake.

Some cancer treatments can also create sleep problems:

- Chemotherapy
- Steroids
- Seizure, nausea, and thyroid medications
- Antidepressants
- Stimulants

If you have trouble sleeping, talk to your health care team. They can help.

Tips for Sleeping Better

- Go to bed at the same time each night, and wake up at the same time each morning.
- Avoid napping or limit naps to 30 minutes or less during the day.
- Get regular exercise.
- Spend some time outdoors in the sunlight every day. Remember to protect your skin with clothing and sunscreen.
- Try to keep your eyes closed when in bed, even when you're not sleeping.
- Avoiding negative thoughts, use guided relaxation, breathe with purpose or talking positively to yourself to help overcome these negative thoughts.
- Meditation, practicing mindfulness activities.
- Get acupuncture or a massage to help you relax.

Changes in your bedroom can also help you sleep better:

- Use curtains to block light from your bedroom.
- Make sure your bedroom is quiet and at a comfortable temperature.
- Put the alarm clock somewhere you can't look at it.
- Use your bed only for sleep. Do not lie in bed and watch TV or read.

If sleeping problems become serious, your doctor may prescribe a sleep medication for a short time. Other medications may also help. For example, if pain keeps you awake, pain medicine may help you sleep.

Over-the-counter medicines and herbal remedies may interfere with your cancer treatments. Do not use them without talking to your health care team first.

The social workers on HCI's Patient and Family Support team can teach meditation and relaxation skills to help you sleep better. To learn more or make an appointment, call 801-213-5699.

HCI's Linda B. and Robert B. Wiggins Wellness and Integrative Health Center offers acupuncture and massage. To learn more or make an appointment, call 801-587-4585.

Fatigue

It is very common to feel tired and weak during treatment for cancer. Feeling fatigue can lead to distress, as it may lower your ability to do the things you are used to in daily life. If you have fatigue, you may feel you need to rest more than seems normal or reasonable.

Symptoms of Fatigue

- General weakness or limb heaviness
- Lower concentration or attention
- Problems with memory and thinking clearly
- Less interest in usual activities
- Hard time doing daily tasks
- Sleep problems such as unable to sleep or still feeling tired after waking up

Cancer-related fatigue is different than other types of fatigue. It can be overwhelming. Resting doesn't always help it go away, and it can take a while for fatigue to get better, even after treatment ends.

FEELING WEAK AND TIRED IS A COMMON SIDE EFFECT OF CANCER TREATMENT. TALK TO YOUR HEALTH CARE TEAM IF IT IS TOO MUCH.

If you feel overwhelmed, it may help to remember

- Fatigue is normal during cancer treatment.
- Fatigue does not mean the cancer is getting worse.
- Fatigue does not mean the treatment is not working.
- Fatigue is not caused by a lack of willpower. It is OK to ask for help if you need it, and tell your care team.

How Your Doctor or Nurse Can Help

Your health care team will review your overall health to find out if other factors are making your fatigue worse:

- Anemia
- Emotional distress or depression
- Infection
- Nutrition problems
- Pain
- Other illnesses
- Sleep problems

Your health care team can recommend medicines to improve your energy level or help you sleep. Be sure to talk to your care team before taking any over-the-counter medicines, and keep them updated about how you feel, especially if you notice any sudden changes.

Ways to Help Manage Fatigue

Walking and other exercise can help you feel better. Ask your health care team what level of exercise is right for you.

The Linda B. and Robert B. Wiggins Wellness and Integrative Health Center at Huntsman Cancer Institute (HCI) offers many services that can help with fatigue.

These include one-on-one exercise programs with a cancer exercise specialist, group fitness classes, acupuncture, dietitians, and more. Call 801-587-4585 or visit www.huntsmancancer.org/wellnesscenter.

More Tips to Manage Fatigue

Save Your Energy

- Set priorities and give tasks to others who offer to help.
- Take short naps and rest often. Avoid sleeping too much during the day, which makes it hard to sleep well at night.
- Use a cane or walker for assistance if you need it.

Find Relaxing Activities

- Get together with small groups of friends and family for short periods of time.
- Share your feelings and experiences by keeping a journal or joining a support group.
- Listen to music.
- If it is hard to concentrate, read short stories and articles.
- Stay connected with friends and family through e-mail and social media websites.
- Go outside to bird watch or visit a park.

Other Ideas

- Meet with a dietitian from the HCI Wellness Center who can suggest dietary changes to help with fatigue.
- Go to bed and wake up at the same time each day.
- Avoid caffeine.
- Exercise early in the day instead of before bed.

HCI Resources to Help You Feel Better

The Linda B. and Robert B. Wiggins Wellness and Integrative Health Center: 801-587-4585 or www.huntsmancancer.org/wellnesscenter

Patient and Family Support Social Workers: 801-213-5699 or www.huntsmancancer.org/pfs

G. Mitchell Morris Cancer Learning Center: 1-888-424-2100 or www.huntsmancancer.org/clc

Hair Loss

Hair loss is a common side effect of chemotherapy and radiation therapy. These treatments target cells in the body that grow very quickly- which include cancer cells as well as hair cells.

Hair loss can happen anywhere on the body. It usually begins two to three weeks after your treatment.

The amount of hair you lose depends on the type of chemotherapy you get and the amount and location of radiation. Some treatments may cause thinning only you will notice, while others can cause total hair loss. Chemotherapy causes more hair loss on the head and in the pubic area. Radiation therapy causes hair loss in the area that gets treatment.

What you should know about hair loss

- Your scalp may be tender before your hair begins to fall out.
- Your hair should start to grow back within four to six weeks after the last dose of chemotherapy. Hair may take longer than six weeks to grow back after radiation therapy.
- Most methods of trying to prevent hair loss are difficult, costly and not always effective. We do not generally recommend them. Discuss options with your care team.
- After treatment, your hair may grow back with a different color and/or texture.

What can I do before my hair falls out?

- Visit a hair stylist or wig store before treatment begins. This may help you feel more prepared to manage hair loss.
- Use a soft-bristle brush or wide-toothed comb.
- Avoid braiding or pulling your hair into a ponytail, which can increase hair loss.
- Consider asking your kids or loved ones to help you cut or shave your hair. This can help you all adapt to the change.

Other helpful suggestions

- Use a head covering for protection from sun, wind and cold.
- Use sunscreen on your scalp.
- Use a soft, satiny pillowcase.
- Avoid hair treatments or chemicals on the scalp.
- If loss of eyelashes causes irritation in your eyes, talk to your treatment team about eye drops.
- Share your thoughts and feelings with a loved one or in a support group.

For more information

Ask your doctor or nurse, or visit the Cancer Learning Center, to get a copy of our [Wig and Head Cover Resources](#) handout.

Thinking and Memory Changes During Cancer Treatment

Changes in the way you think can happen during cancer treatment. This factsheet tells about these changes and ways to help manage them.

What are these changes?

You may find it harder to do these things during your cancer treatment:

- Think fast
- Pay attention
- Find the right words
- Do more than one thing at a time
- Remember things
- Learn new things

Sometimes the changes can last for months after your cancer treatment is over.

Talk with your care team if the changes make it hard for you to do these things:

- Take care of yourself
- Take care of your family
- Do your work

Also talk with your care team if the changes get worse over time. They may need to do tests or give you medicines that help.

Think about joining a support group for people with cancer. Talking with others who have gone through these changes may help you.

What can I do about these changes?

Get organized.

- Keep a record of important dates and tasks. You can use a planner, calendar, or cell phone app. Record these types of things:
 - To-do lists
 - Times and locations of appointments
 - Phone numbers
 - Names and descriptions of people you want to remember
- Decide which tasks are most important and do them first.

- Take time every day to update your lists. Cross things off when you finish them.
- Ask other people for help.
- Break big tasks into smaller parts. Take breaks when you feel tired or lose focus.
- Set alarms on your phone or computer to remind you when to do things on your list. You can also set alarms to remind you when it is time to take your medicines.
 - If you don't have a cell phone or computer, write down your daily routine. Post it in a place you will see it often such as the refrigerator or bathroom mirror.
- Pick a certain place to keep things you use a lot such as your car keys or glasses.

Train yourself to focus.

- When people tell you things, write them down. Then repeat them back out loud.
- When you read things, underline or use a highlighter to mark important information.
- Make mental pictures of what you need to remember.
- Keep a quiet, tidy space to do work and talk with others.
- Learn the thoughts or emotions that distract you from what you want to do. Attend to them before starting your activity. When these thoughts come into your head, notice them and then return to your work.

Take care of your brain.

- Keep your mind active with puzzles, reading, or a new hobby that interests you.
- Do these things to keep your memory working at its best:
 - Exercise
 - Eat well
 - Get plenty of sleep
 - Reduce stress with meditation or guided imagery. The social worker on your care team can help you learn these methods.

Making Exercise Happen in Cancer Care

Exercise helps your body build strength and endurance. Before, during, and after your cancer treatment, exercise can help you in these ways:

- Quicker recovery
- Less pain
- Better rest and sleep

Find your own best reason to exercise—for example, being able to play with your kids or staying independent. Your ultimate goal is be active for at least 150 minutes per week. Start with what you can do, and work your way up.

Choose activities you like to do. That is the key to meeting your exercise goals.

Here are some tips to help you make exercise happen.

“I don’t have time.”

You can add exercise to things you need to do anyway.

- Walk or ride your bike to work or shopping
- Exercise while you watch TV
- Park farther from your destinations and walk in
- Walk the dog or play with children

Keep track of everything you do each day for a week. Try to find at least three days a week when you could do activities that add up to 30 minutes. Schedule exercise times on your calendar.

“I’m too tired.”

Remind yourself that exercising will actually give you more energy. It’s true. Try it!

Schedule exercise for times in the day or week when you have the most energy.

“I can’t get motivated.”

Invite friends and family to exercise with you.

Plan social activities that involve exercise such as dancing and outdoor games.

Join a group or class with an activity you like such as hiking or walking tours.

“I’m afraid I’ll get hurt.”

Choose activities with a lower risk of getting hurt:

- Walking instead of running or riding a bike
- Snowshoeing instead of skiing
- Water aerobics instead of step aerobics

Warm up before exercise and cool down afterward.

“I don’t know how.”

Choose activities that need no new skills such as walking, climbing stairs, or jogging.

Take a class to learn a new activity.

“I can’t afford equipment and classes.”

Many types of exercise such as walking and jogging need little special equipment.

Talk with your cancer care team about strength exercises you can do without gym machines.

You may find low-cost gyms and classes through schools, parks and recreation programs, or your workplace.

“I can’t exercise when I travel.”

Walk the halls and climb stairs in hotels.

Stay in places with a swimming pool or exercise room.

Walk through the local shopping area.

Bring a jump rope or your favorite aerobic dance music and exercise in your room.

Before you start, talk with your cancer care team about an exercise plan that is right for you.

For information about free and low-cost exercise classes and programs for Huntsman Cancer Institute patients, call the Linda B. and Robert B. Wiggins Wellness and Integrative Health Center at 801-587-4585 or visit www.huntsmancancer.org/wellnesscenter

When you have cancer, you need to protect yourself and your partner during sex. Taking precautions helps in these ways:

- Protects you from infections. Some cancer treatments can weaken your immune system.
- Protects your partner. It keeps traces of cancer medicines from passing to your partner.
- Prevents pregnancy. Cancer treatment can harm a developing baby.

Protecting Yourself

Follow these precautions when you receive any type of cancer treatment:

- Wash your hands and genitals before and after all types of sexual activity.
- Use a condom to prevent infections and diseases that are passed on by sex.
 - Condoms are available for both males and females.
 - Never use both a male and female condom together.
 - Never reuse condoms.
- During male oral sex, use a male condom. During female oral sex, use a plastic film or dental dam.

Follow these precautions for specific types of cancer treatment.

When receiving chemotherapy. Some treatments make you more likely to get infections. You could get urinary tract or bloodstream infections. Ask your doctor whether having sex raises your risk for infection.

When receiving radiation therapy. Having sex is OK for men who get radiation. For most women who get radiation, it's OK unless you have genital bleeding.

For women, radiation to the lower belly can make sex hurt. If you get radiation in this area, wait to have sex for 2–4 weeks after treatments end.

After surgery. Some women have their uterus removed. This surgery is called a hysterectomy. If you had this operation, you need to heal for 4–6 weeks before having sex.

Protecting Your Partner

Your body fluids may contain traces of the cancer medicines you take. This can pose a risk to your sexual partner. You or your partner may want to think about using a barrier device for 1 week after each treatment. The table on page 2 gives examples of barrier devices. Talk with your doctor to learn if the medicines you take create this risk.

Protecting against Pregnancy

Talk to your doctor about how long after your treatment you should avoid getting pregnant. Most patients need to avoid pregnancy for 6 months to 1 year. The time may be shorter or longer, depending on your situation.

The table on page 2 shows methods of birth control. Most doctors recommend using TWO methods when you must avoid pregnancy. One of the methods should be a male or female condom.

You may not be able to use some types of birth control such as birth control pills. Talk to your doctor to find the best and safest methods of birth control for you.

If you become pregnant in spite of your precautions, talk to your doctor right away.

For information about cancer and having children, contact the Utah Center for Reproductive Medicine at the University of Utah.

Call 801-581-3834

Visit healthcare.utah.edu/ucrm

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Effective Birth Control Methods

Method	Examples	Comments
Total abstinence	Avoiding sex entirely	This is the most effective method of birth control.
Hormonal methods for women	<ul style="list-style-type: none"> • Birth control pills • Birth control shots or injections • Birth control implants • Birth control patches • Hormonal intrauterine devices, or IUDs • Vaginal rings 	Hormonal methods may not be best for you. Talk with your doctor about the best method for you.
Non-hormonal methods for women	<ul style="list-style-type: none"> • Birth control sponges • Cervical caps with spermicidal (sperm-killing) foam, jelly, or cream • Copper IUDs • Diaphragm with spermicidal foam, jelly, or cream • Female condoms 	Female condoms may lower the risk of infections. Do not use them together with a male condom.
Female sterilization surgeries	<ul style="list-style-type: none"> • Fallopian tubal ligation, or having tubes tied • Removal of BOTH ovaries • Hysterectomy, or removal of the uterus 	Removal of one ovary does NOT protect you from pregnancy.
Barrier devices for men	Condoms, preferably latex	Condoms may lower the risk of infections. Do not use them together with a female condom.
Male sterilization surgery	Vasectomy, or having tubes cut to keep sperm from leaving the body	

Withdrawing before ejaculation, or “pulling out,” is NOT an effective form of birth control.
 Avoiding sex during ovulation (calendar method) is also NOT effective.