



# CANCER CARE: CHEMOTHERAPY GUIDELINES

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# WELCOME

The Cancer Center welcomes you. When you arrive, please see your way to the front desk. One of our associates will check you in and review any updates needed to our system. If you have new insurance or a change in contact information, please provide to us at the time of your appointment. You will then have a seat in our waiting room. We provide snacks, coffee, water, juice and Coke products for refreshments. A medical professional will call for you and any company you may have as close to your scheduled time as possible.

The medical professional will obtain your vital signs, weight and any labs that have been ordered by your provider. You will then review your medical history with the medical professional in the exam room and will wait in the exam room for the provider to see you. If at any time during your appointment you feel you have been waiting longer than you expected, please seek out a St. Elizabeth associate and we will be glad to attend to you.

## Locations

- St. Elizabeth Cancer Center**  
(859) 301-4000  
1 Medical Village Drive  
Edgewood, KY 41017

**St. Elizabeth Ft. Thomas**  
(859) 572-3298  
85 North Grand Avenue  
Ft. Thomas, KY 41075

**St. Elizabeth Grant**  
(859) 824-8210  
238 Barnes Road  
Williamstown, KY 41097

**St. Elizabeth Cancer Center Dearborn**  
(812) 496-8000  
606 Wilson Creek Road, Suite 130  
Lawrenceburg, IN 47025



# FREQUENTLY ASKED QUESTIONS

## What is chemotherapy?

Chemotherapy – sometimes called “chemo” – is a medicine used to kill cancer cells. Chemotherapy can be used alone or in combination with surgery and/or radiation.

## Which chemotherapy is best for me?

The Cancer Care team at St. Elizabeth Healthcare will create a personalized treatment plan for you. When developing your care plan, your medical team will evaluate the type of cancer, stage of cancer and any additional health issues to help decide on the best course of treatment.



## How does chemotherapy work?

Chemotherapy attacks and kills rapidly dividing cells. Many normal cells in your body also divide quickly, and unfortunately chemo cannot tell the difference between your normal cells and your cancer cells. Chemotherapy typically wipes out all of your rapidly dividing cells, both good and bad.

## What is the goal of my treatment?

Depending on your type and stage of cancer, there are different goals of treatment:

### ADJUVANT TREATMENT:

Chemo used in addition to or after the main treatment (such as after surgery).

### CURATIVE TREATMENT:

Chemo treatment used to cure the disease and completely eliminate it from the body.

### NEO-ADJUVANT TREATMENT:

Chemo that is given before the main treatment (such as before surgery). In this setting, the chemo is typically used to shrink tumor size before surgery.

### PALLIATIVE TREATMENT:

Chemo that is given to relieve symptoms and reduce pain. Palliative chemo is not aimed at providing a cure. It's important to note that Palliative Care is different – this service is available to any patient at any stage in their cancer journey to help improve their quality of life.

### SURVIVORSHIP:

If the goal of your cancer treatment is curative, please ask your physician or nurse if you qualify for a survivorship program. These programs offer ongoing support long after treatment is complete.

# TREATMENT ROOM GUIDELINES

You might not know what to expect before your first chemo treatment. The following guidelines will help to provide you with a comfortable and safe visit:

### VISITORS:

Please limit your visitors to one at a time in the treatment area. Your visitor is your choice – we recommend a supportive family member or close friend.

### AGE:

Treatment room visitors must be at least 18 years old.

### RECLINERS:

Recliners are for the comfort of our patients. Visitors are not allowed in the recliners.

### FOOD:

Snacks and beverages are available at any time for patients. Patients may order from the \$5 menu at the New Day Cafe.

### WIRELESS:

Wireless internet is available – you are welcome to bring your laptop or any other electronic device. Please make sure to bring headphones if you are planning to listen to music or watch a movie/TV show.

### BOOKS:

Please feel free to bring any books, magazines or newspapers to read during your treatment.

### CELL PHONES:

Out of respect for other patients in the treatment room, please keep phone calls to a minimum and keep your ringer/notifications on silent or vibrate.

### SCHEDULE YOUR NEXT APPOINTMENT:

Before you leave, please schedule your next appointment and be sure to understand all discharge instructions. We want to make sure you have everything you need to handle any possible side effects at home.

***Thank you for allowing us to provide compassionate care during your treatment. Your health and well-being are very important to us. Please let us know if we are not meeting your needs at any time during your stay. We want to make your visit as positive as possible.***

# POSSIBLE CHEMOTHERAPY SIDE EFFECTS & MANAGEMENT

This resource was created by your Cancer Care providers at St. Elizabeth Healthcare. This booklet provides a list of side effects that may or may not occur during your treatment. It is important to establish a relationship with your Cancer Care team so we are able to better answer your questions and assist you as quickly and effectively as possible.

Please call (859) \_\_\_\_\_ - \_\_\_\_\_ to speak with your nurse navigator about any symptoms or side effects that you may be experiencing. At St. Elizabeth Healthcare, we are here for you and will help in any way we can.



## Key Points:

### Infection Prevention:

Chemotherapy can suppress your immune system, making it easier for you to get sick. Make sure to be careful in crowded public spaces and avoid being near anyone who is ill – including family members or children. Wash your hands and/or use hand sanitizer frequently. Call the office immediately with a temperature of 100.5 or greater, 24 hours a day, 7 days a week. We have an on-call physician who will advise you on next steps.

### Mouth Care:

Chemo can do a number on your mouth, creating painful sores. Our best advice is to rinse, rinse, rinse! Mix 1/4-1/2 teaspoon of salt or baking soda with 4-6 ounces of water at least four times a day (after meals and before bed). Swish the mixture and spit to help keep your mouth sores to a minimum. This treatment can be done every two hours if you need it. Make sure to notify your doctor if you develop mouth sores or have white patches in your mouth.

### Nausea:

Nausea is a common chemo side effect. Be sure to take nausea medication at the FIRST sign of nausea – do not wait until you are vomiting. Call your Cancer Care team if your nausea medications are not working so we can adjust them right away.

### Constipation:

Dehydration, changes in diet, chemotherapy and anti-nausea medications can increase the frequency of constipation. We recommend a daily stool softener. If that is not providing relief, please talk to your nurse navigator for suggestions on next steps.

### Diarrhea:

It's a good idea to have over-the-counter anti-diarrheal medication on hand. Your nurse navigator can give you suggestions on dosage and specific brands. Make sure to call your doctor immediately if you've had diarrhea for more than 24 hours and it's still not under control.

### Hydration:

Fluids are a key part of your care plan. Try to drink 64-72 ounces of clear fluids each day – water, Gatorade, etc. Avoid caffeinated drinks if at all possible; however, if you do have caffeine make sure to increase your clear fluids intake.

### Pain / Pain Medication:

**Always check your medications before the weekend, as pain prescriptions cannot be filled on the weekends.** Please give our office 24 hours to process refills. Let your doctor and/or nurse navigator know if you have new or uncontrolled pain.

### Medication:

Before starting any new medication, please contact your Cancer Care team. New medications can include prescriptions, over-the-counter, herbals, supplements or vitamins. Your team will decide if new medications are safe to use with chemotherapy. Oncology pharmacists are available during your treatment and provider visits for all of your medication questions. Pharmacists work with your Cancer Care team to help provide excellent care!



# Appetite Changes: Why don't I want to eat?

Chemotherapy can cause appetite changes for many reasons – nausea, vomiting, bowel changes, mouth sore pain, soreness in esophagus from radiation or chemotherapy changes and many other things.

These appetite changes can last a few days during each treatment round or throughout the entire course of treatment. Each patient is different – but we're here to help. We have dieticians who can recommend foods, meal replacements and other ideas to help get your appetite back on track.



- TIPS FOR MANAGING YOUR APPETITE CHANGES:**
- Eat small meals frequently: we recommend 5-6 small meals each day, as they can be easier to tolerate than three big meals. Try foods that are high in protein and try a variety of spices/flavors.
  - Use plastic instead of metal utensils: some chemo treatments can leave a metallic taste in your mouth. Local and online stores offer a variety of inexpensive reusable plastic utensils – this can help to reduce the metallic taste. You can also try to rinse with a salt or baking soda mixture before eating.
  - Stimulate your appetite: try to do something active before you eat. A quick walk can jump-start your appetite.
  - Drink your calories: if food is too much of a struggle, protein drinks can save the day. Try Boost, Ensure or similar pre-made protein shakes – or make your own at home with protein powder. Drink cold and with a straw.
  - Call your doctor: if you are unable to eat for a long time and are losing weight – please call us so we can help.

## Bleeding

- TO HELP MANAGE BLEEDING, DO THE FOLLOWING SUGGESTIONS:**
- Brush with a very soft toothbrush.
  - Blow your nose gently, using a saline nose spray for dryness.
  - Be very careful with scissors/knives/any sharp objects.
  - Use an electric shaver – do NOT use a straight edge razor.
  - Apply pressure to any cut until bleeding stops.
  - Wear shoes or slippers at all times to avoid any cuts to the feet.

- DO NOT:**
- Use toothpicks or floss, especially if it's not a part of your normal routine.
  - Play sports/activities where you could get hurt.
  - Use tampons, enemas, suppositories or rectal thermometers before consulting with your physician or nurse navigator.

- CHECK WITH US BEFORE:**
- Drinking alcohol.
  - Having ANY dental procedures, including cleanings.
  - Taking any vitamins, herbs or supplements.
  - If you have any of the following symptoms:
    - Unexplained bruising/bleeding
    - Small red spots on skin
    - Red/pink urine
    - Bleeding gums/nosebleeds
    - Heavy menstrual periods
    - Headaches/changes in vision
    - Increased fatigue and/or confusion



# CBC: Complete Blood Count

Chemotherapy causes a decrease in your normal cell production. Seven to ten days after treatment, your blood counts are typically at their lowest before your body is able to rebuild them. Be on the lookout for the following signs and symptoms:

**Red Blood Cells (RBC):**  
*Carries oxygen throughout the body.*

Hemoglobin level (hgb): 12-15  
Hematocrit level (hct): 35.7-45.9

- SIGNS/SYMPTOMS OF LOW RED BLOOD CELL COUNT (ANEMIA):**
- Extreme weakness/fatigue
  - New/increasing shortness of breath with exertion
  - Dizziness/lightheadedness
  - Pounding or ringing in ears
  - Fast heartbeat

- TIPS FOR MANAGING LOW RBC:**
- Get plenty of rest, especially between activities
  - Move slowly
  - Stand up slowly to avoid dizziness
  - Eat leafy green veggies to add iron to your diet



**Platelets (PLT):** *Help your blood to clot to avoid excess bleeding/bruising.*

Platelet level (plt): 144-423

- SIGNS/SYMPTOMS OF LOW PLATELET COUNT (THROMBOCYTOPENIA):**
- Nosebleeds
  - Bleeding gums
  - Easily bruising
  - Prolonged bleeding from a cut/wound
  - Black/tarry or bloody stools
  - Brown/red urine
  - Tiny red or purple spots on skin

- TIPS FOR MANAGING LOW PLATELETS:**
- Avoid aspirin/NSAIDs (ibuprofen, Motrin, etc.)
  - Use a soft toothbrush
  - Avoid accidental cuts and bruises when possible
  - Use saline nose spray as needed
  - Check with your physician or nurse before scheduling any dental appointments



**White Blood Cells (WBC):**  
*help protect your body from infection.*

White blood cell level (WBC): 4-11

- SIGNS/SYMPTOMS OF LOW WHITE BLOOD CELL COUNT (LEUKOPENIA):**
- Oral temperature of 100.5 or greater
  - “Flu-like” symptoms: chills, aches, shakiness
  - Burning with urination
  - Cough or sore throat

- PREVENTING INFECTION WITH LOW WBC:**
- Frequent hand washing
  - Diligent hygiene
  - Careful skin inspection for dryness or breakdown
  - Careful body inspection for areas of infection – especially your mouth
  - Call us IMMEDIATELY if any infection symptoms develop



# “Chemo Brain”

You may have heard of “chemo brain” – it refers to cognitive changes that occur during treatment. The cause is unclear but symptoms include trouble with attention span, memory and concentration.



### TIPS FOR MANAGING CHEMO BRAIN:

- Be patient with yourself – this is temporary.
- Avoid distractions whenever possible.
- Ask for information to be repeated.
- Write things down to help you remember.
- Keep a calendar of important dates and events.
- Use a pill box to keep close track of your medications.
- If you are confused, ask for help.
- Have a family member or friend stay with you if you feel extra confused.
- Keep a journal.
- Try to stay organized.
- Ask for help.
- Exercise regularly.
- Get plenty of sleep.

# Constipation

Many chemo patients experience constipation, which is a decrease in your normal number of bowel movements. This can cause bloating, cramping, gas, increased straining and pain. Anti-nausea and pain medications can make constipation worse. Dehydration, little to no exercise and other factors also contribute to constipation.

### TIPS FOR MANAGING CONSTIPATION:

- Drink those fluids: try to increase your fluid intake to 64-72 ounces of clear fluid each day.
- Limit caffeine: try to cut back on your caffeine consumption. If you must have it, increase your clear fluid intake even more.
- Increase fiber: fill your diet with whole grains, beans, broccoli, fresh raw fruit and veggies, nuts, corn, sweet potatoes, dates, prunes etc. Consider adding a fiber bulk product to your liquids, such as Metamucil® or Miralax®.
- Be cautious with dairy: some dairy products – like cheese – can constipate you. Be cautious and avoid consuming them during times of constipation.
- Bump up your activity level: when you feel up to it, increase your activity/exercise level. Even taking a slow walk around the block can help to stimulate your bowels.

### IF YOU NEED EXTRA CONSTIPATION HELP:

- Add a stool softener or laxative to your daily routine.
- Your physician or nurse can recommend a stool softener/ laxative combination if you still haven’t found relief.
- Some patients take a daily low dose of Senokat S® to stay regular.
- Always call your doctor or nurse if you have not had a bowel movement in three days and/or need help on what to take to relieve constipation.



# Diarrhea

Diarrhea is frequent bowel movements that are soft, loose or watery. Chemo can damage the lining of your intestines, which can sometimes speed up your bowels. Diarrhea can also be caused by medication side effects and/or infection.

### TIPS FOR MANAGING DIARRHEA

- Eat small meals: try to eat smaller meals more frequently.
- Increase potassium: eating more potassium-rich foods (bananas, oranges, peaches and apricot, boiled or mashed potatoes, melon, etc.) can help bulk things up and ease diarrhea.
- Drink more fluids: if you are having frequent diarrhea, it’s important to stay hydrated. We recommend Gatorade, Powerade and Propel to help replace electrolytes that are lost during diarrhea episodes. Try to drink more than the recommended 64-72 ounces per day.
- BRAT diet: try the BRAT (bananas, rice, applesauce, toast) diet.
  - Bananas: replaces lost nutrients
  - Rice: easily digested/binding starch
  - Applesauce: provides sugars for energy
  - Toast: easy to tolerate/binding
- Medications: take medications (over the counter or prescribed) recommended by your physician or nurse.

### MAKE SURE TO ALWAYS TELL YOUR MEDICAL TEAM IF YOU ARE CURRENTLY EXPERIENCING DIARRHEA.

- Could get worse: diarrhea can get worse quickly without proper treatment.
- Dehydrating: diarrhea can dehydrate you – which can be severe and even life-threatening.
- Nutrient depletion: diarrhea depletes your nutrient levels, which are important for your overall health.
- Early treatment: if we can treat your diarrhea early, you will feel better more quickly. You will also have a greater chance of preventing being hospitalized and/or delays in further chemo treatments.

To treat diarrhea, we recommend an over-the-counter anti-diarrheal such as Imodium AD. Take two pills with your first loose stool and one each time after that – up to eight pills per day. Please note this is more than the box indicates; however, it’s important to get your diarrhea under control. If it persists longer than 24 hours, call your physician immediately.





# Fatigue: Why does it happen?

Fatigue (extreme tiredness) is one of the most commonly reported side effects for cancer patients. While it is common, it can be frustrating to feel weary, worn out, weakened or uninterested in participating in your normal activities. Fatigue can vary from person to person – and treatment to treatment. One treatment round you might feel almost normal; the next you might be completely exhausted. This is normal. Fatigue can also last months after your treatment plan has finished.

**POSSIBLE CAUSES:**

- Changes in appetite
- Anemia
- Doing too much at one time
- Frequent doctor visits
- Anxiety or depression
- Infection
- Lack of activity
- Medications
- Other medical issues
- Pain
- Trouble breathing
- Trouble sleeping
- Certain types of chemotherapy

**TIPS FOR MANAGING FATIGUE:**

- Relax: try yoga, prayer or meditation.
- Eat and drink well: drink lots of clear liquids and eat frequent, small nutritious meals.
- Plan rest time: realize that normal activities like taking a shower will require more energy. Plan in rest time.
- Be active: even small amounts of exercise – like walking around your house or down your block – can significantly decrease fatigue.
- Ask for help: this is hard for many of us, but ask for help where you can. Prioritize your activities so you have energy for the important things.
- Be realistic about work: work with your employer to establish a realistic work schedule. Work when it works for you.
- Try to live your normal life: cancer treatments can throw your whole life off schedule. Try to stick to whatever normal routine you can when you feel up to it – this often helps mentally, physically and emotionally. Just make sure to incorporate frequent rest breaks.

# Hair Loss

Hair loss – also called alopecia – is when some or all of your hair falls out. This includes all body hair, eyebrows, eyelashes and scalp hair. Depending on the type of chemo treatment you are receiving, all or some of your hair may fall out.

**TIPS FOR MANAGING HAIR LOSS:**

- Open communication: discuss the possibility of hair loss and any questions you may have with your physician or nurse.
- Cut your hair: to help give you more control over your hair loss, consider cutting your hair or shaving your head with an electric razor.
- Get a wig: if you are interested in getting a wig, pick one out prior to losing your hair to help match your color and style. You may also want to take your wig to your own hairstylist to help shape and style it.
- Insurance: ask your insurance company if they will cover the cost of the wig (a prescription will be necessary).
- Take it easy: use a mild shampoo, avoid rubbing your scalp dry and try not to use any harsh products in your hair. Treat your scalp as gently as you would treat a baby’s scalp.

**HAIR LOSS: WHAT TO EXPECT**

- In general, you can expect to start losing your hair about 14 to 15 days after your chemo treatment.
- Your hair will start to grow back about 2-3 months after your last chemo treatment.
- Regrowth may be a different color and/or a different texture (for example, curly instead of straight).

**HAIR LOSS: THINGS TO AVOID**

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

**HAIR LOSS: AFTER**

- Protect your scalp – wear a hat, a turban or a scarf while you’re outside to help protect from the sun and the cold.
- Always wear sunscreen!
- Use a satin pillowcase – they provide less friction and more comfort than cotton pillowcases while sleeping.
- Be open with loved ones, friends and your nurse. Hair loss is oftentimes a difficult and emotional journey. Make sure you have a support team in place to help you with any fears or frustrating feelings you may have throughout your hair loss.

**DIGNICAP® SCALP COOLING SYSTEM**

Patients at St. Elizabeth have the opportunity to incorporate the DigniCap® Scalp Cooling System into their cancer treatment plan. The DigniCap® is the first FDA-approved scalp cooling technology to help prevent hair loss during certain chemotherapy regimens. Talk to your oncologist or nurse navigator to see if DigniCap® is an option for you.





# Hot Flashes

Temporary sensations of heat, sometimes facial flushing and/or sweating that can be due to chemotherapy, hormonal changes due to cancer or medications you are taking.

### HOW CAN I MANAGE THIS?

- Lower the thermostat in the home.
- Avoid highly seasoned foods, coffee, tea and alcohol.
- Dress in layers (jackets/sweaters are easy to remove during hot flash strikes).
- Wear cool, cotton clothing.
- REMEMBER that these are uncomfortable, but not harmful to your health.
- Do not take medications recommended by friends/family without consulting your doctor first!



# How to Manage Infection

### TO HELP AVOID INFECTION, DO THE FOLLOWING:

- Wash your hands frequently with soap and water.
- Use sanitizing wipes to clean surfaces and any items you frequently touch.
- Gently and thoroughly wipe after bowel movements.
- Stay away from people who are sick - including children.
- Avoid crowds, especially during cold & flu season.
- Use caution when using nail clippers/razor – don't nick yourself.
- Watch for any signs of infection such as a new cough, drainage, mucus production or burning/painful urination.
- Take good care of your skin.
- Be careful around animals and do not clean any litter boxes, bird cages or reptile cages.
- Check with your physician before getting any vaccines.
- Thoroughly wash raw fruits and vegetables before eating.
- Do not eat raw or undercooked fish, seafood, meat, chicken or eggs.

### EXTRA NEUTROPENIC PRECAUTIONS (ANC < 1.0):

- Avoid any situation with a risk of cuts/scraps/materials pulling at skin (including mechanical repairs).
- Do not use enemas. The rectal area skin is easily infected and can bleed easily.



Call the office at (859) \_\_\_\_ - \_\_\_\_ immediately (24/7) if you have a fever of 100.5° F or higher.

# Infertility

We know fertility is a big concern for many of our cancer patients of child-bearing age. Some types of chemotherapy can cause infertility - the inability to conceive.

In women, infertility can be caused by damage to the ovaries from chemotherapy. This can lower the number of healthy eggs and lower the hormones produced by the ovaries, causing early menopause.

In men, chemo can damage sperm cells, lowering the sperm count or making the sperm less mobile.

### TIPS FOR MANAGING FERTILITY ISSUES:

- Talk to your physician about if you want children before you start treatment. At St. Elizabeth, we offer fertility specialists who can walk through options with you, including ways to preserve eggs and sperm.
- Women must use birth control and not get pregnant during their chemotherapy treatment.
- Men must make sure their partner or spouse is using birth control. It is very important that your partner or spouse not get pregnant while you are undergoing chemotherapy treatment.

# Lymphedema

Lymphedema is an excessive and chronic accumulation of lymph fluid that causes swelling. This swelling most typically occurs in the arms and legs but can also appear in other parts of the body. It is caused by an impairment of the lymphatic system.

If you have been diagnosed with lymphedema or are experiencing symptoms that may indicate lymphedema, ask your physician or nurse navigator about a referral to our Lymphedema Clinic for specialized care and treatment.

### POTENTIAL CAUSES:

- Breast cancer with removal of lymph nodes or radiation treatment
- Ovarian cancer
- Prostate cancer
- Abdominal surgery
- Trauma to, or removal of, lymph nodes
- Congenital disorders

### SYMPTOMS:

- A “full” sensation in arms or legs
- A feeling of tightness of the skin
- Decreased flexibility in the hand, wrist or ankle
- Tightness of clothing
- Tightness of jewelry

### COMPLICATIONS:

- Poor posture
- Pain in the lower back, trunk, hip, neck, shoulder, arm or hand
- Problems walking
- Skin infections
- Tendency to develop cellulitis due to impaired circulation
- Skin breakdown due to decreased blood flow



# Mouth Care

The lining of your mouth is sensitive to any changes, and chemo can be a big one. Mouth tenderness and sores are a common chemo side effect. If you are also receiving any type of radiation treatments to the head/neck, your mouth sores could be worse. Mouth problems cause pain, infection and difficulty eating or drinking. Preventive mouth care is very important.

### TIPS FOR PREVENTIVE MOUTH CARE:

- Brush teeth with a soft toothbrush and fluoride toothpaste at least twice a day.
- Floss ONLY IF you are used to flossing. If you aren't a regular flosser, do not start now.
- Never floss if your platelet count is less than 50,000 or your WBC are low.
- Use a lip moisturizer.
- Drink at least 64-72 ounces of clear fluids each day - staying hydrated is key!
- Eat a balanced diet.
- Rinse your mouth four times a day (after meals and at bedtime) with salt water or baking soda and water.
- Never use commercial mouthwash that contains alcohol.

### IF MOUTH TENDERNESS OR SORES OCCUR:

- Brush your teeth every four hours.
- Leave your dentures out as much as possible.
- Rinse your mouth every two hours while awake.
- Check for ulcers, blisters or white patches in your mouth and report them to your healthcare team.
- Avoid alcohol, chewing tobacco or extremely hot, spicy and crunchy foods.

### MOUTH RINSE RECIPES:

- 1/4 - 1/2 teaspoon of salt in 1 cup of water
- 1/2 - 1 teaspoon of baking soda in 1 cup of water
- Or make a salt/baking soda mixture



# Nail & Skin Changes

It's important to know that chemotherapy can also affect nail growth and skin changes.

### NAILS

- Chemo can alter or stop the growth of nail tissue, causing the nails to become weak.
- Chemo treatments such as Fluorouracil (5-fu) and hydroxyurea can make nails brittle.
- Chemo agents like Bleomycin, 5-fu, Adriamycin, Taxol and Taxotere can cause the nails to pull away from the nail bed.

### SKIN

- Chemo can sometimes cause mild skin issues such as sensitivity to sun exposure, acne, redness, peeling and/or dryness.
- Chemo agents such as Erbitux, Nexacar, Suent, Tarceva, Tykerb and Vectibix can all cause skin reactions.



### TIPS FOR MANAGING NAIL AND SKIN CHANGES:

- Keep hands and nails meticulously clean.
- File nails to keep the edges smooth.
- Do not trim cuticles.
- Use gloves for housework and gardening.
- Avoid soaking your nails and hands in water.
- If your nails lift and separate from the nail bed, discuss it with your nurse or physician and monitor for infection.
- Notify your physician if there is any oozing or drainage from your nailbeds or fingers.
- Drink plenty of fluids and eat a balanced diet.
- Avoid extreme temperatures and wear loose-fitting clothing.
- Use a moisturizer frequently, both on your face and body.
- Avoid sun exposure whenever possible.
- Use gentle skin cleansers and lotions.
- Avoid lotions and soaps with fragrances.

### HOW TO MANAGE HAND-FOOT SYNDROME:

- Hand-foot syndrome is also called Palmar-Plantar Erythrodysesthesia (PPE).
- PPE is a skin reaction that is a common side effect of Doxil, 5-fu, Xeloda, Sutent, Nexavar and Taxotere and usually occurs on the hands and/or feet.

### SYMPTOMS:

- Flaking/peeling of the skin, redness, pain or tenderness, rash or small blisters/sores on palms of hands/soles of feet, swelling, tingling, burning or itching.

### DO:

- Avoid heat, wear loose-fitting clothing and comfortable shoes. Elevate your feet whenever possible. Wear sunscreen (at least SPF 30) and take cool/short showers or baths.

### DO NOT:

- Get direct sunlight, put tape on your skin, wear restrictive garments or clothing, put pressure on your skin, wear tight jewelry or have contact with hot water.



# Nausea and Vomiting: Why does it happen?

Chemotherapy often causes nausea. It triggers the area of your brain that tells your body there is a foreign substance in it – and it must be eliminated from the body. Nausea can be caused by various reasons, including smell, taste, anxiety, pain or motion. It can also be caused by a change in the lining of your stomach from the chemo. Nausea and vomiting can occur at any time – during treatment, right after treatment or hours/even days later. It typically does not last from treatment to treatment and often gets better the further you get from your chemo treatment.



On the day of your chemo, you will be given medications that will help to prevent nausea and vomiting. These medications can help for multiple days after treatment. You will also be given nausea medication for home. You should take these at the FIRST sign of nausea – don't wait! It makes it harder to get it under control.

**TIPS FOR MANAGING NAUSEA/VOMITING:**

- Easy to digest food: try to prevent the nausea with easy-to-eat bland foods (crackers, popsicles, toast, clear liquids, jello, clear broth, etc.).
- Plan it out: schedule out times to eat and drink. If you feel best in the morning, try to eat more then. Make sure to eat before your treatment to help prevent nausea and/or extreme hunger.
- Eat frequent small meals: large meals can be hard to tolerate during treatment. Our dieticians recommend eating small meals every few hours.
- Control what you can: does the smell of your food trigger nausea? Eating food at room temperature can help with this. Also try to stay away from foods with strong smells.
- Avoid certain foods: Greasy, fried, salty, sweet and spicy foods can be more irritating and nausea-inducing.

# Nerve Changes

Peripheral neuropathy is a set of symptoms caused by damage to the nerves in the arms, legs, hands and feet. Chemotherapy can cause damage to these nerves, as can other conditions like diabetes.

**SYMPTOMS:**

- Pain, tingling, burning, numbness or weakness.

**CAUSES:**

- Issues with movements and coordination.
- Severe electric shock-like pain sensations.

Chemotherapy-induced peripheral neuropathy can be made more severe by additional factors like age, genetics, chemotherapy dose and multiple treatment agents being used together. Symptoms usually improve with time but peripheral neuropathy can be a long-term side effect from the treatment. It is important to discuss any new or worsening nerve changes with your physician or nurse throughout your treatment.

**TIPS FOR MANAGING NERVE CHANGES:**

- Take pain medications as prescribed by your physician to help with the symptoms.
- Avoid extreme temperatures, snug clothes or shoes or anything that makes your symptoms worse.
- Allow extra time to complete tasks.
- If you are a diabetic, make sure to control your blood sugar.
- Be extra careful using sharp objects.
- Wear gloves when cleaning, working outdoors or doing repairs.
- Check your feet daily for injuries and sores. Always wear shoes to protect your feet.
- Use support when walking if needed.
- Reduce scalding risk when washing your hands by setting your water temperature between 105-120 degrees.
- Cover your hands and feet during cold weather.
- Consult with your physician or nurse navigator before beginning any herbs, supplements or additional medications.

# Coping With Your Feelings

Starting chemotherapy can bring on an assortment of feelings. You may feel anxious to get it over with or dread getting it started. Or maybe you don't know how you feel about it – and that's okay too. This is your journey and St. Elizabeth is here with you, every step of the way.

**RELAX:**

Find some quiet time to relax. Breathe slowly, listen to music, meditate or pray. Relaxing helps to reduce stress levels.

**EXERCISE:**

Light exercise can help you feel better. This could include walking, riding a bike or doing yoga.

**TALK WITH OTHERS:**

Make sure to share your feelings with someone close that you trust, whether that is a spouse, family member, close friend or trusted professional on your healthcare team. We have social workers on site at St. Elizabeth who are happy to provide support in any area that is worrying you.

**SUPPORT GROUPS:**

St. Elizabeth offers a number of support groups for both during and after treatment. Patients report that it can be very helpful to talk to people going through similar experiences. Your nurse navigator can give you information on these support groups.

**Some important resources:**

- American Cancer Society:  
(888) 227-6446
- Cancer Family Care:  
(513) 731-3346
- Cancer Support Community:  
(513) 791-4060
- Central Scheduling  
(to schedule scans/testing):  
(859) 655-7400





# Safety Guidelines During & After Chemotherapy

## Is it safe for family members to have contact with me during my chemotherapy?

Yes. Being with your family is an important part of life. Eating together, hugging and kissing are all safe.

## What is hazardous (“chemotherapy”) waste?

Hazardous waste may include:

- Chemotherapy medicine.
- Items that are used to give chemo, such as syringes, needles, IV tubing.
- Body waste or fluids (urine, stool, vomit) that are contaminated with chemotherapy up to 72 hours after the drug is given.

## How long do I have to follow these safety guidelines?

Chemotherapy remains in your body for many hours, sometimes days. Most chemo drugs are removed from the body through urine and stool within the first 72 hours after the chemo is administered.

If you vomit, trace amounts may be found in your vomit. Please follow these guidelines during chemo and for 72 hours after your last dose of chemotherapy.

## What do I do if I vomit?

Wash your hands well with soap and water after vomiting. For caregivers who have contact with vomit, wear disposable gloves and rinse the basin well after each use.

If any bed linens or clothing become soiled, wear gloves when handling these items. Avoid skin contact and place the soiled items in the wash right away. Follow chemo laundry guidelines.

## What precautions do I need to take after using the toilet?

Wash your hands well with soap and water after using the toilet. Wash your skin with soap and water if urine or stool gets on it. Close the toilet lid and flush the toilet twice after using it. Do this for a 72-hour period after your last dose of chemo.

## Can my family and I share the same toilet?

Yes. Make sure that body waste is removed from the toilet so that the area is not soiled.

## What if I use a bedpan, urinal or bedside commode?

The caregiver needs to:

- Wear disposable gloves (preferably latex).
- Gently empty the pan in the toilet and avoid splashing.
- Rinse the pan with detergent and/or bleach and water. Gently pour this into the toilet.
- Close the top of the urinal or cover the bedpan with a towel and return to its storage location.
- Remove gloves, wash hands, flush the toilet and leave the bathroom.

## What precautions do I need to take with a colostomy or ostomy?

You and/or your caregiver should wear gloves when emptying or changing appliances. The used ostomy supplies are handled as hazardous waste. Wash your hands well after disposal of supplies and removal of gloves.

## What should I do if I do not have control of my bladder or bowels?

Use a disposable, plastic backed pad, diaper or sheet to absorb urine or stool. Change immediately when soiled and wash skin with soap and water. Wear disposable gloves when handling and wash your hands well after contact.

## Is it safe to dispose of hazardous (chemotherapy) waste in the trash at home?

Chemotherapy and items contaminated with chemo (ostomy supplies, chux pads) are considered hazardous waste. Any hazardous waste should be double bagged and placed in the regular trash. Latex gloves may be disposed of in the household trash.

## What about laundry?

Take precautions while doing laundry. Wear gloves to handle soiled laundry to avoid getting the drug on your skin. Wash the soiled sheets, washcloths and clothing in the washer twice.

- First, wash the soiled items separately.
- Next, wash soiled items again, either separately or with other laundry items.
- Your usual laundry detergents are fine to use.

If you do not have a washing machine in your house, place the soiled items in a thick plastic bag until they can be washed.

Throw away plastic sheets such as chux pads according to the hazardous (chemotherapy) waste guidelines.

## What is the best way to take oral (pill form) chemotherapy by mouth?

Pour out the pill into a container or cup. Wear gloves if you need to touch the chemotherapy pill. Wash your hands well with soap and water after taking the pill. Return any extra chemo pills to your physician, nurse or pharmacy for disposal.

## Is it safe to be sexually active during my treatment?

Most often, yes. However, use precautions, as it is possible that traces of chemotherapy are present in vaginal fluid and semen for up to 72 hours after chemo is given. A condom should be used during sexual intercourse for up to 72 hours after the last dose of chemotherapy. Ask your doctor about special precautions for low blood counts.

## Is it possible to become pregnant or father a child while receiving chemotherapy?

Yes. A reliable method of birth control should be used while you are receiving chemo, as chemotherapy can cause birth defects. Menstrual periods may or may not stop – either temporarily or permanently – during treatment. Likewise, sperm production may be decreased. These side effects may occur depending on the type and dose of chemotherapy.

## What precautions need to be taken by my pregnant caregiver?

If possible, pregnant caregivers and nursing mothers should avoid contact with body wastes. All caregivers should always wash their hands well with soap and water after handling body waste.

## Is it ok to be with my pets while receiving chemotherapy?

Yes. Most pets are safe to continue living with during chemotherapy. Remember to wash your hands after touching animals and to have a friend or neighbor clean-up after them, including cleaning litter boxes. Talk to your doctor if you own reptiles, chickens or rodent pets.

# QUESTIONS TO ASK MY DOCTOR

At St. Elizabeth Healthcare, we know a cancer diagnosis can be overwhelming. Below are a few questions you might want to discuss with your cancer care team. We know you'll have questions along the way and as always, our team is right here with you, every step of the way.

What's the goal of chemotherapy for my cancer?

What are the chances that the chemo will work?

Are there other ways to reach the same goals?

How will I know if the chemotherapy is working?

What will we do if the chemotherapy doesn't work?

What are the risks/side effects of this treatment and how do they compare with other treatment options?

How will I get the chemotherapy?  
How often and for how long?

Where will I get the chemotherapy?

What can I do to get ready for treatment and decrease the chance of side effects?

Will I need to change my diet in any way? My activities? My work? Exercise? Sexual activities?

Will I also need surgery, radiation, or both? If so, when and why? What results can I expect?

If I have chemo after surgery or radiation, will it kill any remaining cancer cells?  
Could chemo be used alone?

Can I take part in a clinical trial?

How much will chemo cost?  
Will my health insurance cover it?

If the insurance company asks for a second opinion, or if I would like to get one, can you suggest someone for me to see?

Other questions?









