



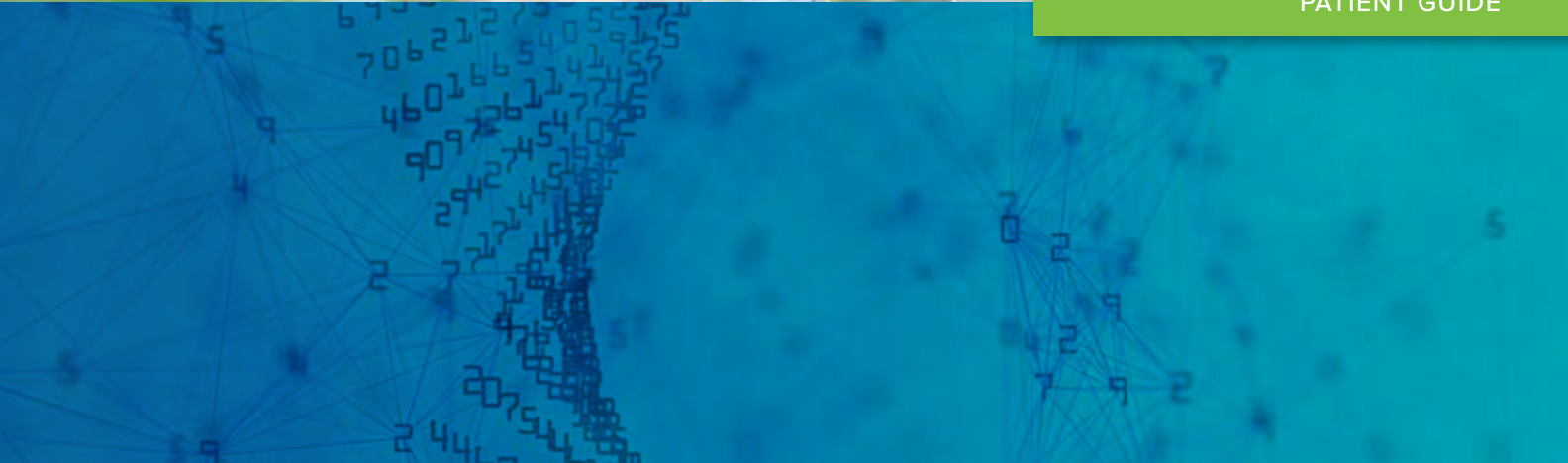
West Michigan Cancer Center

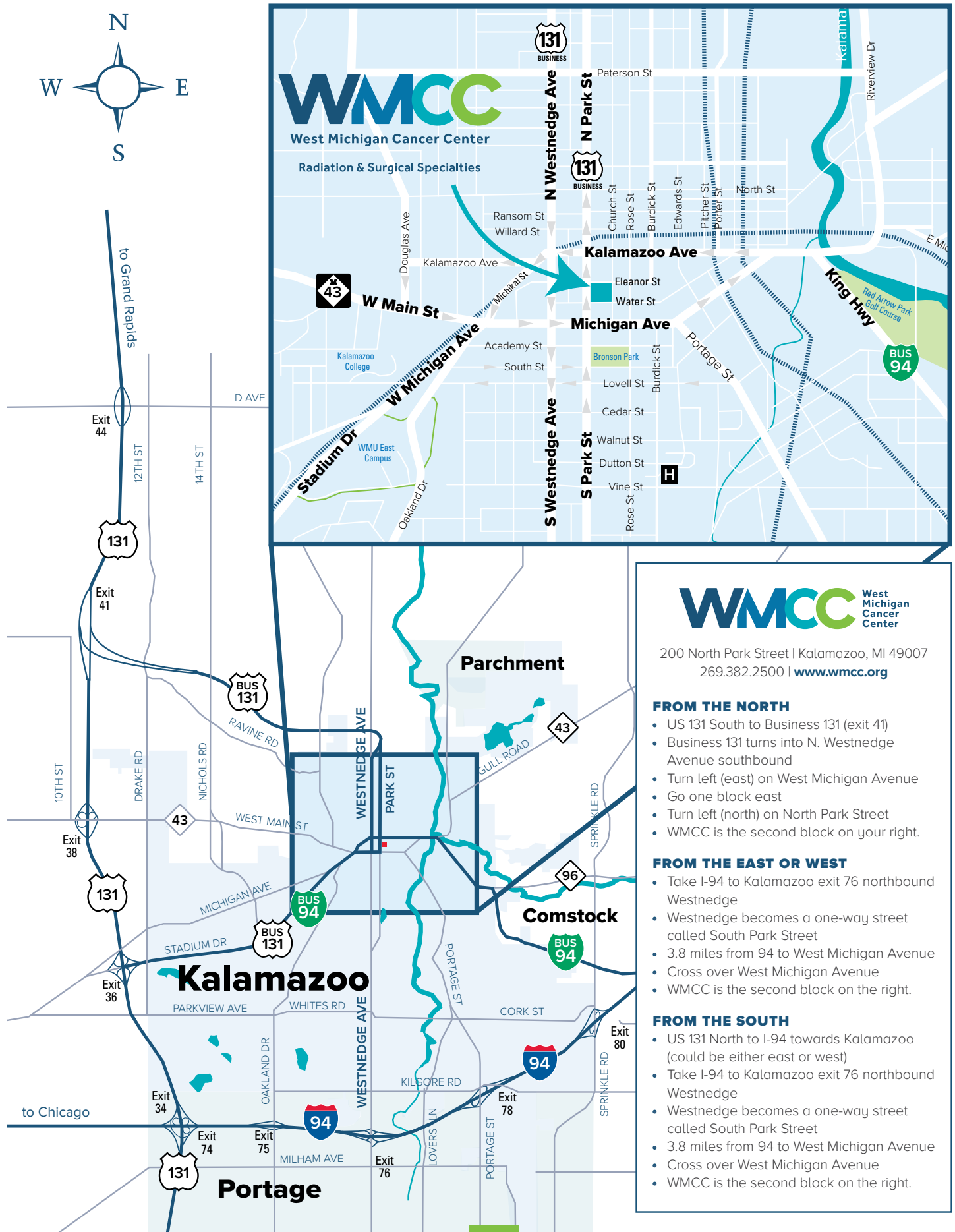
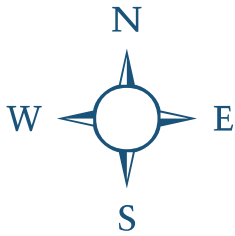
Radiation & Surgical Specialties



CHEMOTHERAPY/ BIOTHERAPY

PATIENT GUIDE





200 North Park Street | Kalamazoo, MI 49007
269.382.2500 | www.wmcc.org

FROM THE NORTH

- US 131 South to Business 131 (exit 41)
- Business 131 turns into N. Westnedge Avenue southbound
- Turn left (east) on West Michigan Avenue
- Go one block east
- Turn left (north) on North Park Street
- WMCC is the second block on your right.

FROM THE EAST OR WEST

- Take I-94 to Kalamazoo exit 76 northbound Westnedge
- Westnedge becomes a one-way street called South Park Street
- 3.8 miles from 94 to West Michigan Avenue
- Cross over West Michigan Avenue
- WMCC is the second block on the right.

FROM THE SOUTH

- US 131 North to I-94 towards Kalamazoo (could be either east or west)
- Take I-94 to Kalamazoo exit 76 northbound Westnedge
- Westnedge becomes a one-way street called South Park Street
- 3.8 miles from 94 to West Michigan Avenue
- Cross over West Michigan Avenue
- WMCC is the second block on the right.



West Michigan Cancer Center

Radiation & Surgical Specialties

200 North Park Street, Kalamazoo, MI 49007-3731 | Phone 269.382.2500 | www.wmcc.org

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CONTACT INFORMATION

Regular Business Hours

The West Michigan Cancer Center Radiation & Surgical Specialties (WMCC) is open Monday through Friday, 8:00 am to 5:00 pm. We can be reached at 269-382-2500.

After Hours

Our answering service takes calls after hours and on weekends and holidays. Call us at 269-382-2500 and tell the answering service your doctor's name and the reason for your call. The on-call doctor will then return your call as soon as possible.

In Case of Emergency

In a life-threatening emergency, please call 911 or report to the nearest hospital emergency room.

In Case of Inclement Weather

In case of inclement weather (snow, a tornado, etc.), listen to local news and radio stations for information about closings. We will also post information on our website at www.wmcc.org, on our Facebook page, and on Twitter. You may also call 269-382-2500; there will be a recording if the Cancer Center is delayed in opening or closed because of weather.

When to Call Your Doctor

Call as early as possible in the morning so that we will have more resources to assist you. Calls later in the day (after 4:00 pm) may make it necessary for you to go to the emergency room rather than our clinic.

Please call us if you experience any of the following:

- Temperature 100.5°F or higher (you need your own thermometer)
- Chills with or without a temperature
- Nausea and /or vomiting that cannot be controlled in 24 hours
- Diarrhea that cannot be controlled in 24 hours using Imodium® AD, Kaopectate, or other over the counter products
- Constipation (no bowel movement in 2-3 days) or if you have severe abdominal pain
- Unusual cough, shortness of breath or lung congestion
- Any bleeding or excessive bruising
- Pain or burning with urination
- Mouth sores or sore throat
- Sinus pressure, pain or congestion
- If you develop a rash or a current rash worsens
- Pain not controlled by current medications
- Any new or unusual symptom(s) that concerns you



PRESCRIPTIONS

- Please request all prescription refills at your office visit
- When calling for prescription refills, we need 24-48 hours to refill prescriptions. So please call when you have about 7 days worth of medication left
- Call your pharmacy in 48-72 hours to see if your prescription has been filled
- If you have not been seen recently, you may need an appointment to see your physician before we can refill your prescription
- If another physician from a different office ordered the medication previously, you will need to call that physician's office for a refill
- Controlled substances - per Federal law, some medications cannot be called in or mailed and will require being picked up. You will be asked by your physician to sign a controlled substance agreement

CLINICAL TRIALS

Clinical trials are research studies in which people volunteer to test new treatments or devices. Doctors use clinical trials to learn whether a new treatment works and is safe for people. Clinical trials are necessary to determine the best way to treat serious diseases such as cancer.

Why Should You Participate in a Clinical Trial?

Participating in a clinical trial can provide you access to new drugs before they are available to the general public. Participation may also contribute to providing improved treatment options for future patients. A clinical trial can be an integral part of your treatment. While there is always a chance that a new treatment will prove to be less effective than hoped, there is also reason to believe that it will be as good as, or better than, current treatments.

What Kinds of Trials are Available?

Treatment trials may involve a new cancer drug, new combinations of treatments, new approaches to surgery or radiation therapy, or new methods such as gene therapy.

Symptom Management trials, also called Quality of Life, explore ways to improve comfort and quality of life for cancer patients.

How to Participate

Ask your physician if you may be eligible to participate in a clinical trial coordinated by WMCC's highly dedicated and experienced Clinical Research Trial Team.

WMCC provides a comprehensive team to support you and your loved ones through this difficult time.



PATIENT CARE SERVICES

- **Social Work Services:** specialize in oncology and hematology care
- **Wellness Programming:** WMCC provides a variety of wellness programming for patients and caregivers. Updated program materials are located in the exam rooms, and on our website at www.wmcc.org
- **Spiritual Care:** WMCC staff can assist with coordinating spiritual care to meet your needs
- **Volunteer Services:** Our volunteers are screened, trained, and monitored facilitating a variety of services for patients and caregivers. Programming is outlined on our website at www.wmcc.org
- **Registered Dietitians (RD):** As a patient at the WMCC, you have access to a registered dietitian. A registered dietitian has special training in food, nutrition, biochemistry, and physiology. Ask your doctor for a referral to set up a complimentary visit with one of WMCC's registered dietitians.



BILLING INFORMATION

West Michigan Cancer Center Radiation & Surgical Specialties is dedicated to the well-being of all of our patients. You are understandably worried about your health. With any health problem also comes the stress of dealing with rising medical bills and confusing insurance matters. WMCC provides compassionate and caring financial counselors who are on-site to assist you with any insurance, billing or financial concerns. Contact a financial counselor at 269-382-2500.

QUALITY ASSURANCE

We make every effort to ensure our patients and families receive the best treatment possible and are highly satisfied with their experience. If at any point you have a concern, please speak with your care team directly or call the QI/Risk Manager at 269-373-7471.

QUESTIONS AND ANSWERS ABOUT IMMUNOTHERAPY

What is Immunotherapy? Also Known as Biotherapy or Targeted Therapy

Immunotherapy is a treatment that uses the body's own natural defenses to attack cancer cells.

How Does Immunotherapy Work?

Immunotherapy drugs help your immune system work harder or make it easier for it to get rid of cancer cells.

What Does Immunotherapy Do?

The goal of immunotherapy is to slow down the growth and spread of cancer cells.

Why Side Effects Occur

Side effects can occur from an overactive immune system. The drug turns on your body's immune system to work harder. Therefore, the immune system can attack healthy cells as well, which can cause the side effects.

It is important to be aware of the possible side effects and call your physician/nurse at the first sign of a problem, even if you don't think it's serious or are unsure if it's related to the immunotherapy.

If you receive medical care at an emergency room or other place not familiar with your cancer treatment, be sure to tell the health care team there that you are receiving immunotherapy. If possible, provide the name of the specific drug(s). Keeping this information written on a paper and stored in your wallet can be helpful in case you need it quickly. Talk with your cancer care team about which details of your treatment you should carry with you.

Getting care for side effects after immunotherapy treatment ends is important. Many side effects will go away when treatment ends, but some effects can last after the treatment period and other effects may occur months or years later. Your physician/nurse can help you manage long-term side effects.

QUESTIONS AND ANSWERS ABOUT CHEMOTHERAPY

What is Chemotherapy?

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

How Does Chemotherapy Work?

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

What Does Chemotherapy Do?

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

- **Cure cancer**—when chemotherapy destroys cancer cells to the point that your doctor can no longer detect them in your body and they will not grow back. The chemotherapy treatment is an attempt to cure but is not a guarantee
- **Ease cancer symptoms** (also called palliative treatment) - when chemotherapy keeps cancer from spreading, slows its growth, shrinks or destroys cancer cells that have spread to other parts of your body. Chemotherapy may be used to shrink a tumor that is causing pain or pressure



How is Chemotherapy Used?

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

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

Why Side Effects Occur

Short-term side effects occur because many chemotherapy drugs act on normal cells as well as cancer cells. Fast-growing cells are the most affected. This includes cells that make up hair, skin, the digestive tract and blood. Chemotherapy can also affect certain other cells, such as those in the nervous system and organs (such as heart, kidneys, liver and lungs). They may also impact fertility. Some chemotherapy drugs may have long-term effects. For example, another cancer could occur at a later time as a result of taking chemotherapy. If you have any questions regarding this matter, please ask your doctor or nurse.

The Treatment Cycle

Chemotherapy is given in cycles. First, you have a treatment. Then time is set aside for the body to build healthy cells before the next treatment. During this resting time, the body goes through different phases as it mends. One phase is the “nadir period.” During the nadir period, certain blood cells decrease in number. Your doctor or nurse will help you learn what to expect during this phase of your cycle.

Risks and Complications

There are some risks with chemotherapy. The benefits usually outweigh the risks. The following are possible long-term side effects of chemotherapy:

- Organ damage (such as to the heart, kidneys, liver or lungs)
- Another cancer, which may occur at a later time
- Lasting nerve damage
- Infertility

BLOOD COUNTS

What is a CBC? It is a lab test called a complete blood count.

What are you looking for when drawing my CBC?

- White Blood Cell (WBC): helps fight infection
- Neutrophils: the “soldiers” that fight infections. They eat or gobble up the infectious particles (bacteria) in your body
- Absolute Neutrophil Count (ANC): measure of the number of infection-fighting white blood cells in your blood
- Red Blood Cell (RBC): carry oxygen to and remove waste products from the body’s tissue. These cells also contain hemoglobin
- Hemoglobin (HGB): gives red blood cells their color. Hemoglobin carries oxygen from the lungs to the tissues. From the lungs, carbon dioxide is exhaled
- Hematocrit (HCT): the percentage of red blood cells in relation to your total blood volume
- Platelets: help to stop bleeding by clotting the blood

What is neutropenia?

It is when your ANC is below normal, making you at increased risk for infection. Signs and symptoms of infection that you should be looking for:

- Fever (100.5° or higher)
- Shaking chills (even if no fever)
- Flushed skin, sweating
- Frequent urination or burning when urinating, cloudy or bloody urine
- Redness, tenderness, swelling, drainage, odor or pain anywhere on the body
- General feeling of tiredness or flu-like symptoms (sore throat, sneezing, runny nose, coughing, nausea/vomiting, diarrhea, shortness of breath, chest discomfort)

What should I do if I have one or more of these symptoms?

You must contact your doctor immediately.

• *How can I help prevent infections?*

- Washing your hands frequently is very important. Make sure to wash your hands before eating, and after using the toilet, blowing your nose, coughing, or sneezing. You may also use sanitizer or wipes
- Check your temperature once a day when you are neutropenic and call your doctor immediately if temperature is 100.5° or higher
- Check for signs of infection such as the site of a central venous catheter/port, or any tube or catheter site. Also check the mouth, groin and private areas
- Avoid having contact with crowds and people with illness/infection
- Maintain good oral hygiene
 - Rinse teeth and gums with plain water after meals and at bedtime
 - Use a soft toothbrush. Floss only if ANC is greater than 500 and platelet count is greater than 50,000
 - Wear well-fitting dentures
 - Have dental work done only if you first consult your doctor.
 - Use lubricant (such as A+D® Ointment or Vaseline®) on lips to prevent chapping
- Avoid working with dirt/soil and cleaning bird cages, cat litter boxes, pet excrement, and fish tanks
- Do not have manicures or pedicures, and do not have false nails applied



- Avoid hot tubs and Jacuzzis. Swim only in chlorinated swimming pools
- If you cut or scrape your skin, clean the area immediately with soap and warm water, and then apply a bandage
- Limit your exposure to fresh flowers, house plants, and stagnant water. Wash your hands after touching any of these items
- Keep hot foods hot and cold foods cold
- Wash raw vegetables and fruits well before eating them
- Do not eat raw or undercooked seafood, meat, poultry or eggs
- Do not consume food or drinks that are moldy, spoiled, or past the freshness date
- Use clean kitchen utensils and cutting boards. Use separate cutting boards for meat, poultry and fish
- Avoid using enemas, rectal thermometers, and suppositories. Women should not douche or use tampons or vaginal suppositories
- To promote hygiene during sexual activity, avoid excess friction during intercourse by using a water-based lubricant. Avoid rectal intercourse. Use a birth control method recommended by your nurse or doctor

• *Is there a treatment for neutropenia?*

- You may receive an injection of Neupogen® (filgrastim) or Neulasta® (pegfilgrastim) after chemotherapy to help your body make more white blood cells and neutrophils

Note: The most common side effect of Neupogen or Neulasta is achiness in the bones or muscles. A small percentage of patients may experience achiness from mild to severe. If you have this side effect, it can usually be relieved with a nonaspirin pain reliever, such as acetaminophen. Please let your nurse or doctor know if you are experiencing severe achiness that is not relieved by pain medication.

- You may be given antibiotics if you develop an infection



What is anemia?

It is when you do not have enough red blood cells to carry the oxygen your body needs, causing hemoglobin and hematocrit levels to fall below normal

• *What are the signs/symptoms of anemia I should be looking for?*

- | | |
|-----------------------|---|
| • Feeling weak/tired | • Heart palpitations (racing heartbeat) |
| • Dizziness | • Pounding in your head |
| • Shortness of breath | • Ringing in your ears |

What should I do if I have one or more of these symptoms?

You must contact your doctor immediately.

• *How can I help lessen or prevent some of the symptoms?*

- | | |
|---|--|
| • Rest often during the day by taking short naps (1 hour or less) | • Rest between activities |
| • Sleep enough at night (at least 8 hours) | • Eat a balanced diet |
| | • Get up slowly from a sitting or reclining position, this will lessen dizziness |
| | • Accept help from others |

• *Is there a treatment for anemia?*

- You may need blood transfusions if your hemoglobin/hematocrit are too low and/or your symptoms are severe.
- You may receive an injection of Aranesp® (darbepoetin alfa) or Procrit® (epoetin alfa) on a regular schedule to help your body make red blood cells.



What is Thrombocytopenia?

It is when you do not have enough platelets. Platelets are cells that make your blood clot when you bleed. Chemotherapy can lower the number of platelets because it affects your bone marrow's ability to make them.

- *What are the signs/symptoms of thrombocytopenia?*

- Bruising easily
- Tiny, pinpoint-sized red or purple spots on your skin (petechiae)
- Nose bleeds
- Bleeding gums
- Prolonged bleeding from a cut
- Black or bloody stool
- Brown or red urine
- Increased vaginal bleeding
- Headaches or vision changes

- *How can I help lessen or prevent some of the symptoms?*

- Avoid over-the-counter aspirin or NSAIDs (i.e. ibuprofen, naproxen) as these prevent platelets from working as they should, unless otherwise directed by doctor
- Use a soft toothbrush. If your gums bleed during brushing, use Toothettes® instead of a toothbrush. Do not floss if platelets are less than 50,000
- Use an electric shaver rather than a razor
- When you blow your nose, do it gently
- If you do start bleeding, apply gentle but firm pressure until the bleeding stops
- Avoid using enemas, rectal thermometers, and suppositories. Women should not douche or use vaginal tampons or vaginal suppositories
- Avoid constipation or straining during a bowel movement
- Avoid wearing tight-fitting clothing
- Avoid cutting with sharp knives or working with sharp blades
- Avoid contact sports such as football and hockey
- Speak with your doctor about sexual intercourse. If your platelet count is too low, sexual intercourse may not be advisable. If you have sexual intercourse, use water-based lubricants as needed

- *When should I notify my nurse or doctor?*

- If you have bleeding from a procedure or incision site, or blood in your urine or stool, or uncontrolled nosebleed or bleeding gums
- If you have headaches, extreme drowsiness (unrelated to medication), confusion, or falls
- If you notice new petechiae or bruises

- *Is there a treatment for thrombocytopenia?*

- You may need platelet transfusions if your platelet count is too low and/or your symptoms are severe

Scheduling of Transfusions

If your doctor decides you need a blood or platelet transfusion, your nurse will set up an appointment in an outpatient setting at a hospital near you. This is an outpatient procedure and is not considered a hospital admission.



NUTRITION

Nutrition is an important part of your treatment plan for cancer. It is important to eat well during your cancer treatment. Eating well helps you feel better, keep up your strength and energy, keep up your weight and your body's store of nutrients, tolerate treatment-related side effects, lower your risk of infection, and heal and recover faster. Cancer and cancer treatments can affect the way you eat and the way your body uses nutrients.

Side effects from treatment are possible but do not happen to everyone. It is important to be aware of side effects of treatment, how they affect your nutrition, and know how to manage them. This section provides you with information on maintaining good nutrition during your cancer treatment.

Getting Started

It is important to eat a wide variety of foods so your body gets the nutrients it needs to support itself while fighting cancer. The nutrients your body needs are protein, carbohydrates, fat, water, vitamins, and minerals.

- Protein is a source of calories for your body. Protein helps your tissues rebuild and repair and keeps your immune system working. Protein is found in meat, fish, poultry, eggs, dairy, nuts, seeds, beans, peas, lentils, tofu, tempeh, and soy beans
- Carbohydrates are a source of calories for your body. Carbohydrates give your body energy and help your organs work properly. Carbohydrates are found in milk, yogurt, starches, starchy vegetables, and fruit
- Fat is a source of calories for your body. Fat insulates body tissues, helps your body absorb certain nutrients, and helps with the flavor of food. Fats are found in vegetable oils, butter, nuts and seeds, avocado, cream cheese and sour cream
- Water and fluid prevent dehydration. Aim to drink eight, 8-ounce glasses of fluid per day. This can be anything that becomes liquid at room temperature. Some examples are water, juice, sports drinks, gelatin, popsicles, and ice chips
- Vitamins and minerals help the body grow and stay strong and help your body break down food for energy. The best way to make sure you are getting enough vitamins and minerals is to eat a wide variety of foods choosing from each food group. If you are not eating a balanced diet while you go through treatment, ask your doctor or dietitian if you should take a multivitamin. Always discuss vitamin, mineral, and herbal supplements with your healthcare team. Many supplements interfere with cancer treatment

Tips for Eating During Treatment

- Enlist the help of a family member or friend to help with meal preparation
- Keep easy to prepare foods on hand for quick snacks during the day
- Make meals ahead of time and freeze them to have on days when you feel more fatigued
- Try new foods. Taste changes during treatment might make some of your favorite foods less desirable. Don't be afraid to try something you don't normally like since it might taste good to you now
- Eat small frequent meals and snacks during the day
- If you take any vitamin, mineral or herbal supplements, check with your healthcare team to make sure they are safe to take during treatment

Feeding Tube

Sometimes during treatment, it is not possible to eat or drink enough by mouth. When this happens, people receive nutrition through a feeding tube. If you need a feeding tube, your healthcare team will set you up with the information and supplies you need.



Meal Planning Tips to Increase Calories

HIGH CALORIE ADDITION	WHERE TO ADD IT
Avocado (healthy fat)	Sandwiches, salads, smoothies Make guacamole and use as dip
Beans and legumes (protein boost, added fiber)	To soups and puree for a smooth consistency To salads, casseroles, pasta and rice dishes
Butter or margarine (trans fat free) (high fat)	To potatoes, vegetables, hot cereal, soups, bread, rice, eggs Melt and drizzle on popcorn Combine with seasoning and use on meats, hamburgers, or fish
Canola oil, olive oil, coconut oil (healthy fat)	Use it to stir fry, or drizzle over rice or pasta Add a tablespoon to tomato sauce
Cheese (protein boost, high fat)	Sprinkle on casseroles, soups, salads, omelets, and vegetables Add a slice on your sandwich or crackers
Coffee creamer (high fat)	To milkshakes or hot cereals
Commercial nutrition supplements (protein boost, added calories)	Use instant breakfast powder in milk drinks and desserts Mix with ice cream, milk, fruit and peanut butter for a high protein milkshake
Cottage cheese or ricotta cheese (protein boost, high fat)	To casseroles, spaghetti, noodles, and egg dishes To pancake or waffle batter
Cream cheese (high fat)	Spread on bagels and crackers or serve with fruit Roll into balls and coat with nuts, wheat germ and/or granola
Dried fruit (added calories, fiber boost)	To muffins, cookies, bread, or hot or cold cereal Use as part of trail mix
Eggs, any style (protein boost)	To hard-cooked eggs to salads or casseroles Use deviled egg filling for a sandwich spread
Fresh fruit or canned fruit (added calories, fiber boost)	To milkshakes and ice cream Use as a topping for puddings and custards Blend with a commercial nutrition supplement
Granola (added calories)	Use in cookie, muffin or bread batter Sprinkle on yogurt, ice cream, custard, or fruit Layer with fruit and bake To hot or cold cereals
Greek yogurt (protein boost)	Eat with fruit and granola, or use as a dip for fruit
Honey, jam, brown sugar (added calories)	To hot or cold cereal Use to sweeten coffee or tea To bread, crackers, cereal, milk drinks, and desserts
Ice cream (high fat)	Blend with milk and fruit Blend with a commercial nutrition supplement To a carbonated beverage
Milk or cream (high fat, protein boost)	Use in soups, sauces, egg dishes, batters, puddings and custards Mix with noodles, pasta, rice and mashed potatoes
Nuts and seeds (healthy fat, protein boost)	To cereals, casseroles, and salads; or make trail mix
Peanut butter (healthy fat, protein boost)	Spread on bagels, bread, cracker, fruit To smoothies, or eat by the spoonful
Powdered milk (protein boost)	To regular milk and other milk drinks Use in casseroles, meatloaf, batters, sauces, casseroles, omelets, mashed potatoes, puddings, and milk-based
Sour cream (high fat)	To cream soups, baked potatoes, macaroni and cheese, vegetables, stews and chili Mix with different seasonings and use as a dip for vegetables
Sweetened condensed milk (added calories)	To pies, puddings, milkshakes Mix 1-2 tablespoons with peanut butter and spread on toast

NAUSEA AND VOMITING

Nausea

Nausea is a common side effect that can happen with chemotherapy treatment. Nausea is the feeling or urge to vomit (throw up). This can happen within 24 hours after treatment or even two or more days after treatment. Anti-nausea medications are often given at the Cancer Center along with your chemotherapy.

Mild nausea can be treated with medications (antiemetic) that your doctor will prescribe to you before your start treatment. These can be taken at home to help control nausea. There are many different types of these medications and it is important to let your nurse or doctor know if the medicine is not working for you.

Helpful Tips:

- Try eating bland, soft, or dry foods such as crackers or toast
- Avoid strong odors
- Avoid spicy, greasy or very sweet foods
- Eat slower
- Try eating 5 or 6 small meals and snacks, instead of 3 large meals
- Avoid drinking large amounts with meals
- Try not to eat your “favorite food” when you are nauseated. This could cause you to permanently dislike the food
- Rest after meals. This allows time for digestion
- Do not lie down flat for one hour after a meal or snack
- Using distraction or relaxation has also been known to help
- Try ginger or peppermint, tea, and candies
- Inhale ginger or peppermint essential oils using a diffuser

Vomiting

The best way to avoid vomiting is by controlling nausea. If you do vomit, it is important to know how to keep your body from becoming dehydrated.

- Do not eat or drink until you have vomiting under control
- Once your vomiting is controlled, try drinking clear liquids, such as water or broth
 - Begin with one teaspoon every 10 minutes, increase amount to one tablespoon every 20 minutes and finally try 2 tablespoons every 30 minutes
- If you feel like you can eat food; begin with bland, low fat foods like crackers or toast

When you vomit, you lose electrolytes, such as potassium and sodium. If you continue to vomit and do not replace these lost electrolytes, it becomes difficult for your body to function properly. Here are some suggestions of foods and drinks that are rich in electrolytes:

- Bananas
- Sports drinks
- Boiled or mashed potatoes
- Peaches or peach nectar
- Fat-free broth or bouillon
- Pedialyte® drink or popsicles
- Juice

Call Your Doctor or Nurse

- If you vomit more than 3 times in a day
- If you are taking anti nausea medication and you are still nauseated or vomiting
- If you are losing weight from vomiting
- If you have no appetite or are unable to eat or drink for 24 hours



Clear Liquids

This list may help if you have vomiting, diarrhea, urinary, kidney, or bladder changes.

TYPE	EXAMPLES		
Soups	Bouillon	Clear, fat-free broth	Consommé
Drinks	Clear apple juice Fruit-flavored drinks Fruit punch	Clear carbonated beverages Fruit juice, such as cranberry or grape Weak tea with no caffeine	Water Sports drinks
Sweets	Fruit ices made without fruit pieces or milk Honey	Jelly	Gelatin Popsicles

SORE MOUTH

Chemotherapy drugs destroy the normal cells of your body, especially those normal cells that are produced at a rapid rate. For example, the cells lining your mouth and throat can be affected. Because of this, some anti-cancer drugs can cause sores in the mouth and throat, a condition called “stomatitis.” Treatment can also affect your gums and cause mouth tissues to become dry and irritated, which is temporary. Ask your doctor or nurse if there are medications or supplements you can take to help manage the pain and speed up the healing process.

Stomatitis can often be prevented or lessened by using the following:

Mix ½ to 1 teaspoon salt and ½ to 1 teaspoon baking soda in 8 oz. to 16 oz. of warm water; use a mouthful of this rinse three to five times per day. Swish, gargle and spit. You may rinse with fresh water afterwards.

Tips for Ways to Prevent and Manage Mouth Sores

- Clean your mouth and teeth gently with a soft toothbrush
- Clean dentures and/or bridge after eating. Leave dentures out if experiencing any discomfort
- Maintain good nutrition, including high protein and high calorie foods
- Eat lukewarm or cold foods. When food is very hot it can be irritating
- Try drinking through a straw
- Drink large amounts of water or non-acidic juices (for example, apple or grape juice)
- Keep your mouth clean and brush your teeth or rinse mouth after eating
- Apply lip moisturizer often
- Eat soft or liquid foods
- Blend or moisten foods that are dry or solid

Avoid

- Spicy, acidic, salty, crunchy, crusty or chewy foods
- Alcohol, tobacco, carbonated beverages, and caffeine products
- Mouthwash that contains alcohol
- Spices that are irritating such as chili powder, cloves, curry, hot sauces, nutmeg, salsa, horseradish and pepper. Instead, choose things like basil, oregano, and thyme

The Following Foods and Drinks May Be Better Tolerated

- Applesauce
- Casseroles
- Cheeses
- Cooked cereal (like Cream of Wheat or oatmeal)
- Cottage cheese
- Custards and puddings
- Egg salad
- Eggs
- Gelatin
- Gravies
- Ice cream and milkshakes
- Liquid nutrition supplements (Boost® Ensure®, etc.)
- Lukewarm soup (choose creamy soup for added calories)
- Mashed potatoes
- Pancakes
- Soft fruits (not acidic, like peaches, pears, bananas)
- Tuna or chicken salad
- Yogurt



Mouth Sores May Include

- A burning feeling in the mouth
- A red, irritated oral lining
- A swollen, inflamed tongue
- Sores in mouth or on lips
- Pain or any sign of infection (i.e. tongue heavily coated)

Treatment is based on the extent of the mouth sores.

Call Your Doctor if

- Rinsing with a solution of salt, baking soda, and warm water does not start to heal the sores
- Mouth sores are painful
- You experience any of the following, which could indicate an infection:
 - Soft, white patches
 - Dry, brownish-yellow areas
 - Moist, creamy white areas
 - Painless, dry, yellow ulcers
 - Open areas on the lips or mouth

DIFFICULTY SWALLOWING (DYSPHAGIA)

Some types of cancer or treatment for cancer can cause swallowing problems. If you have difficulty swallowing, treatment can sometimes make this worse. When people have trouble drinking or eating, they might avoid doing so. This can lead to weight loss and even dehydration. Make sure you tell your physician, nurse or dietitian if you are having difficulty swallowing. Ask your doctor for medication if you have pain when swallowing.

If you experience coughing, gagging or choking when eating or drinking, always inform your physician, nurse or dietitian. When food goes down the “wrong pipe” it is called aspiration. This can cause pneumonia. If this occurs, you will be referred to a speech therapist who is an expert in evaluating if it is safe for you to swallow. The speech therapist will determine the safest way for you to get nutrition.

Tips When it is Hard to Swallow

- If you have seen a speech therapist, always follow his/her instructions for eating techniques and diet modifications
- Always sit up as straight as possible with your shoulders level while eating
- If food gets stuck, for even a short time, stand up, stretch the top half of your body and walk around, it may help the food slip down into your stomach. Never lie down
- If you have false teeth, make sure they are fitting properly
- Stop eating three hours before you go to bed. If food gets stuck in your esophagus overnight, it can be very uncomfortable and sometimes painful
- Cut up your food into small pieces. Take small bites and chew well before swallowing
- Take sips of water with each bite of food
- Make sure you have plenty of time to eat and you are not rushed
- Moisten food well with sauces, gravies, and syrups
- Blend, chop, or puree food in a food processor or blender

APPETITE AND WEIGHT LOSS

You may find it difficult to eat during treatment for a number of reasons. The side effects of treatment, fatigue or depression can cause a loss of appetite.

Although your appetite may not be normal, it is important to eat enough calories and protein to prevent weight loss during treatment. This is true even if you have been told to lose weight in the past. The weight lost during treatment is usually muscle mass instead of fat mass. Losing muscle mass during cancer treatment can affect your body’s ability to tolerate the treatments, decrease your energy level and strength, and weaken your body’s immune system. If you lose your appetite, it is important to think of nutrition as part of your treatment plan rather than simply eating for pleasure.

Tips for Eating with a Poor Appetite

- Eat more on days when you feel well
- Choose your favorite foods that are easy to prepare and serve
- Eat five or six small meals per day
- Set an alarm to go off every 1-2 hours as a reminder to eat
- Eat when you are relaxed and in a pleasant environment
- Ask your physician, nurse or dietitian if liquid nutrition supplements would be helpful to you
- Try mild to moderate exercise as you are able to stimulate your appetite
- Make high calorie additions to your meals and snacks (see specific suggestions at the end of this section)
- Make beverages count (choose milk, juice, and shakes to have with meals)



Foods & drinks that are high in calories or protein This list may help if you do not feel like eating.	
TYPE	EXAMPLES
Soups	Cream soups Soups with lentils, dried peas, or beans (such as pinto, black, red, or kidney)
Drinks	Instant breakfast drinks Milkshakes Smoothies Whole milk
Main meals and other foods	Beef Butter, margarine, or oil added to your food Cheese Chicken Cooked dried peas and beans (such as pinto, black, red, or kidney) Cottage cheese Cream cheese Croissants Deviled ham Eggs Fish Nuts, seeds, and wheat germ Peanut butter Sour cream
Sweets	Custards (soft or baked) Frozen yogurt Ice cream Muffins Pudding Yogurt (plain or vanilla)
Replacements and supplements	Instant breakfast drinks Liquid meal replacements

TASTE CHANGES

Different types of cancer treatments can affect the way foods taste and/or smell. Fortunately, these changes usually go away once treatment is over. In the meantime, it is important to find ways to make food taste better.



Tips for Coping with Taste Changes

- Try using plastic flatware, glass cups and plates if you have a bitter or metallic taste while eating
- Try sugar-free lemon drops, gum, or mints
- Avoid canned foods; choose fresh or frozen instead
- If you don't have a sore mouth or throat, try seasoning foods with tart flavors like lemon wedges, vinegars, citrus fruits, or pickled foods
- Experiment with new seasoning such as onion, garlic, chili powder, basil, oregano, rosemary, tarragon, barbeque sauce, mustard, ketchup, or mint
- Have a variety of foods available. It is common for foods to taste different from day to day, sometimes even hour to hour
- Remember the FASS principle
 - F- fat: fat acts as a vehicle to move flavors around your mouth. Add fat to food to enhance the flavor
 - A- acid: add acidic ingredients if things taste sweet
 - S- salt: add salt if things taste sweet
 - S- sweet: add sweeteners if things taste bitter or salty
- Keep your mouth clean
- Serve foods cold or at room temperature
- Dry mouth can affect the way foods taste. Sip fluids continuously throughout the day
- Try marinating meats to make them tender and to reduce the metallic taste
- Sometimes red meat tastes strange. Don't forget that chicken, fish, eggs, dairy, nuts/nut butters, and legumes are good sources of protein, too
- Make smoothies and shakes
- If smells are bothering you, cover beverages and drink them through a straw, choose foods that don't need to be cooked, and avoid eating in rooms that are stuffy or too warm

To learn more, refer to the resources and the internet section at the back of this book.



SKIN CARE AND EYE CARE

Some chemotherapy medications are known to have side effects that specifically affect the skin. Your skin may become very dry. It may become red, and develop “acne-like” blemishes. These are due to the direct effect of the drug on the rapidly reproducing cells that form your skin. There are several things you can do to minimize these side effects:

1. **Cleansing** – Use a “soapless” skin cleanser, especially on your face and chest. This minimizes drying of the skin. Examples: Eucerin®, Cetaphil®, Neutrogena® and Vanicream™ skin cream products. Look for products that are fragrance-free and free of dyes (if possible).
2. **Creams and ointments versus lotions:** Creams and ointments are best because these will retain most of the moisture in your skin.
3. **Moisturizing Creams** – Moisturizing creams help rehydrate the skin. Examples: Eucerin, Cetaphil, CeraVe®, Neutrogena Norwegian Formula Hand Cream, Aveeno®, and Bag Balm®. Vanicream is another type of cream that is good for those who have sensitive skin. Look for products that are fragrance-free and free of dyes (if possible).
4. **Sunscreen** – Sun exposure may worsen skin reactions. Use sunscreen (minimal SPF 15) liberally, cover exposed areas and wear hats to limit exposure. Sunscreens that have the ingredient listed as titanium dioxide or zinc oxide are the best in protecting the skin. Another type of sunscreen that is very good for protection is Neutrogena with Helioplex and Aveeno with Active Barrier Complex. Wearing long sleeved shirts and pants can also be helpful. Use lip balm. Avoid tanning beds.
5. **Very thick moisturizers** – are used for the cracks on heels or in the fingertips; the best way to prevent or treat these is by using a very thick moisturizer, such as Desitin® or Desitin® Maximum Strength, Udderly Smooth® Extra Cream or A&D® Ointment is also effective. These need to be applied up to four times a day and at night. Ideally one would cover with socks or cotton gloves so the water in the skin is retained and the cracks are allowed to heal.
6. **Detergents** – Use fragrance-free detergents. Ones that say “free” or “clear” on the box, or those with a mild scent are best.
7. Shave less often.
8. Take showers or baths with warm water instead of hot water.
9. Dry your skin by patting it instead of rubbing the skin.

Other treatments may be prescribed by your physician for your skin condition, if necessary.

Some types of chemotherapy may cause your nails to become dark, turn yellow, or become brittle and cracked. Sometimes your nails will loosen and fall off, but new nails will grow back.

Tips for Nails

- Keep your nails clean and cut short
- Wear gloves when you wash the dishes, work in the garden or clean the house
- Moisturize nails
- Avoid use of artificial nails
- Avoid manicures and pedicures
- Avoid tight fitting shoes
- Do not cut or push cuticle back/bite nails
- Use dark nail polish to help hide any discoloration, but do not change your polish frequently because nail polish removers are harsh



Some Chemotherapy May Cause More Severe Skin Reactions Called Hand-Foot Syndrome or Acne-like Rash

- Hand-Foot Syndrome: Abnormal pain, swelling, redness in hands or feet
 - Avoid injury to hands and feet
 - Avoid tight fitting shoes and repetitive rubbing
 - Avoid pressure or prolonged heat to hands and feet
 - Wear cotton or leather gloves when using your hands for sports, hobbies or working, and wear thick cotton socks for walking
 - Do not walk barefoot; use soft slippers or shoes
 - Use moleskin or Molefoam® Padding for your feet when areas do rub against shoes
 - Apply moisturizer creams liberally and frequently to hands and feet
- Acne-like rash: flat or raised reddened area that looks like pimples
 - It is important to moisturize rash (See section on skin care on page 19)
 - This rash is more commonly located on the scalp, head, face, chest, and back
- Drink plenty of fluids
- Protect your skin from the sun
- When outside, always use sunscreen (SPF 15 and higher), lip balm, and/or wear long sleeved shirt, pants, and hat with a wide brim. (See section on skin care on page 19)
- Avoid tanning beds

Eye Changes

Your eyes may become more sensitive to light or sun while you are receiving chemotherapy.

- Wear sunglasses to protect eyes whenever you are in bright light
- Continue regular eye exams (inform your eye doctor what type of chemotherapy you are taking)
- Overgrowth of eyelashes can be a side effect with certain medications. Let your physician know if this is a problem. It can cause eyelid irritation and lead to infection

Call Your Doctor or Nurse if

- You develop a dry, itchy, red, or painful rash
- Nails become cracked, dark, or yellow, or you see pus
- Hands or feet have abnormal pain, swelling, or redness
- You experience excessive tearing or blurred vision
- You experience vision changes
- **Refer to pictures 1-10 on the next page**

Acne-like Rashes from Certain Chemotherapy Medications



Picture 1 - Acne-like rash affecting the face.



Picture 2 - Acne-like rash affecting the back.



Picture 3 - Acne-like rash affecting the chest.



Picture 4 - Signs of an infected rash.

Nail and Skin Changes Related to Certain Chemotherapy Medications



Picture 5 - Discoloration, brittle



Picture 6 - Hand-Foot Syndrome



Picture 7 - Hand-Foot Syndrome



Picture 8 - Infection of the toenail



Picture 9 - Infection of the fingernail



Picture 10 - Overgrowth of eyelashes

HAIR LOSS

Hair loss is a common side effect of certain chemotherapy drugs. These drugs can harm the cells that make hair. The loss is usually temporary. The loss of hair may include scalp, facial (including eyebrows), armpits, pubic and body hair. Radiation therapy to the head may cause temporary or permanent hair loss. Hair regrowth depends on the total amount of radiation given to the scalp.

Hair loss often starts about 2-3 weeks after chemotherapy begins. During this time your scalp may be more sensitive. With some chemotherapy medications the hair can become progressively thin and dry, but does not all fall out.

Most hair loss is temporary and will start to grow back in 2-3 months after your chemotherapy has stopped. The new hair may be curlier, straighter, or even a different color.

Being gentle on your hair may help make your hair loss more gradual and improve hair regrowth.

Tips – Before Hair Falls Out and During Hair Regrowth

- Wash your hair with a mild shampoo and pat dry with a towel
- Use a soft-bristle brush or a wide tooth comb and avoid too much brushing or pulling of hair
- Do not use hair dryers (or keep it on cool setting and at least 4 inches from head). Do not use electric rollers or a straightening or curling iron
- Avoid clips, elastic bands, hair sprays
- Avoid coloring or other chemicals on the hair for two months after completing chemotherapy
- Use a cream rinse to help remove tangles
- Sleep on a satin pillow
- Some patients may choose to cut their hair short prior to the start of treatment

Tips – After the Hair Falls Out

- Protect your head from the sun. Use sunscreen or wear a hat when outside.
Note: A silk scarf does not protect your head from the sun
- Protect your head from the cold by wearing a hat or scarf
- Wig caps can be worn under a wig to help keep the wig in place and it is not as hot
- Sleep on a satin pillowcase or wear a soft scarf when sleeping
- Wash your head with sensitive skin facial soap and moisturize
- Massage your head routinely

Hair loss can be one of the most distressing side effects because it can impact your self image. It is natural to be anxious about the change in your appearance. If a wig is an option, consider getting one before you begin chemotherapy. This will allow you to match your original hair color and style. Caps and scarves may also be a good option for you. Hair may fall out unevenly causing distress so some individuals may cut their hair short or shave their head prior to the start of chemotherapy.

Ask your nurse or social worker about a list of local wig providers, including free wigs and discounted wigs.



CONSTIPATION

A bowel movement every one to two days is ideal. Constipation occurs when bowel movements become less frequent and stools are hard, dry and difficult to pass. This is a common symptom in people undergoing chemotherapy.

Constipation can have many causes such as diet, medications (such as chemotherapy or pain medications), activity changes, electrolytes imbalances, not drinking enough fluids or even some illness. Some common side effects of people experiencing constipation may be:

- Pain and cramping
- Nausea or vomiting
- Swelling in the abdomen
- Unable to urinate
- Loss of appetite
- Confusion



Helpful Tips to Prevent Constipation

- Drink plenty of fluids each day - at least 8-10 eight ounce glasses of non-caffeinated fluid each day. Try water, prune juice, warm juices, decaffeinated teas, and hot lemonade.
- Try to eat around the same times each day.
- Drinking warm fluids helps with constipation.
- Increase the amount of fiber each day such as, fruits and vegetables (raw or cooked, include skins and peels) whole grain cereals, breads and crackers, beans, peas and popcorn. Add these slowly to your diet and be sure to increase your fluid intake to prevent bloating and gas.
- Add prunes or prune juice, dried apricots and other dried fruits and nuts to your diet.
- Do light to moderate physical activity. Talk to your doctor about how much and what type of exercise is right for you.

Medications

If you experience constipation, some over the counter laxatives or stool softeners may help you have a bowel movement.

Stool Softeners

- Metamucil® (Psyllium)
- Citrucel® (Methycellulose)
- Colace® (Docusate)
- Senokot® (Docusate and Senna)

Laxatives

- Milk of Magnesia (Magnesium Hydroxide)
- Senokot-S® (Docusate Salts)
- MiraLAX® (Polyethylene Glycol 3350)
- Peri-Colace® (Docusate and Senna)
- Dulcolax® (Bisacodyl) (oral or suppository) – suppository only if advised to by medical staff
- Fleet® enema (Sodium Phosphates) – only if advised to by medical staff

Call Your Doctor or Nurse

- If you have not had a bowel movement for 2 days after taking stool softeners or laxatives
- If you have severe abdominal pain

Laxative Protocol

The overall goal is to have a bowel movement every one to two days. Because responses vary, use the guidelines below to find a regimen that works best for you. If, at any time, the dosage of your pain-relieving medication is changed, you may also need to increase or decrease your daily dose of laxative. *See your doctor if you believe a change in laxative dose may be necessary.*

1. Take two Senokot-S tablets (a generic form is available at your pharmacy) at bedtime.
2. If you do not have a bowel movement in the morning, take two Senokot-S tablets after breakfast.
3. If you do not have a bowel movement by evening, take three Senokot-S tablets at bedtime.
4. If you have not had a bowel movement by the next morning, take three Senokot-S tablets after breakfast.
5. If there is no bowel movement within 2 days after starting this protocol, add a Dulcolax suppository or Fleet enema after breakfast, while continuing to take three Senokot-S tablets in the morning and three Senokot-S tablets in the evening.

Once you start having bowel movements, use the two steps prior to the last step you took as your daily laxative protocol. For example, if you achieved a bowel movement after Step 4, use Step 2 and Step 3 (that is, two Senokot-S tablets in the morning and three Senokot tablets at bedtime) as your daily regimen.

Remember, constipation is a common side effect of many medications. A daily bowel regimen helps to prevent this potentially troublesome side effect.

Call Your Doctor or Nurse

If you do not have a bowel movement within 4 days after beginning this protocol—your doctor can provide additional instructions.

DIARRHEA

Chemotherapy destroys the cancerous cells and the normal cells of your body, especially normal cells that are produced at a rapid rate. The cells lining your stomach and intestines divide at a rapid rate. As they are destroyed, you may develop diarrhea. The severity of diarrhea varies in individuals. The number of your bowel movements may increase, and the stool consistency may range from very soft to liquid. Diarrhea caused by chemotherapy is temporary. The cells lining your stomach and intestines will regenerate. The diarrhea will usually stop if your drug dose is decreased or if the drug is withheld for several days. Radiation therapy directed to portions of the abdomen and pelvis containing portions of the bowel results in thinning of the mucous membrane lining of the inner wall of the bowel. This causes an increase in bowel motility and a decrease in absorption of fluids, resulting in more frequent and watery bowel movements or diarrhea. The following helpful tips are recommended to assist in the control of diarrhea.

Helpful Tips

- Take Imodium® AD (Loperamide HCL 2mg tablets)
 - This medication is over the counter at your pharmacy. It is suggested to take 2 tablets (4mg) after first loose stool and 1 tablet after any other loose stool for a maximum dose of 8 tablets per day. This medication should not be taken once diarrhea has stopped.
- Other medications may be used. Please contact your doctor before starting.



NUTRITION TIPS FOR TREATING DIARRHEA



- Drink plenty of fluid. Choose clear, mild, non-carbonated beverages. Room temperature liquids may be better tolerated. Clear broth, gelatin, sports drinks, and Pedialyte® are good choices for most people. Drink 1 cup of fluid after each loose stool
- Eat small frequent meals and snacks
- Avoid spicy, greasy, fried, or very sweet foods
- Consume high-sodium foods and drinks such as broths, pretzels, crackers, and sports drinks
- Avoid “sugar-free” products, including gum and mints. Sugar alcohols can make diarrhea worse
- Consume high-potassium foods like fruit juices, sports drinks, potatoes, and bananas
- Limit milk products to 2 cups per day. Yogurt and buttermilk are ok
- Avoid gas-forming foods and drinks (carbonated drinks, gas-forming vegetables, and chewing gum). If you want carbonated beverages, leave them open for at least 10 minutes before consuming
- Consume foods high in soluble fiber such as bananas, white rice, applesauce, white toast, canned peaches, and canned pears. Remember the “**BRAT**” diet (**B**ananas, **R**ice, **A**pplesauce and **T**oast)

LOW-FIBER DIET

Follow this diet if you have diarrhea or loose stools. The diet consists of smooth and easily digested foods. It is low in roughage and omits all raw and cooked fibrous foods, as well as spicy and gas-forming foods.

	Foods Allowed	Foods to Avoid
Beverages	Carbonated beverages, coffee, tea, any strained fruit or vegetable juice	Unstrained juices, prune juice, alcohol, peach or pear nectar
Bread	White or rye bread, rolls or bagels. Soda crackers, biscuits, waffles, tortillas or pretzels	Bread, rolls, bagels or crackers made from whole wheat, bran or graham flour; graham crackers or popcorn
Cereal	Cream of Rice, Cream of Wheat, Malt-O-Meal, Farina, well-cooked oatmeal, ready-to-eat cereals made of corn or rice. White rice, white pasta, noodles, spaghetti made of refined white flour products. Grits (fine-ground), white bread	Any other cereals, wild or brown rice, pasta made with whole grain flour, barley, old fashioned rolled oats
Desserts	Custard, puddings, gelatin, plain cake, plain cookies, plain sherbet	Desserts made with any fruits not allowed, dry fruits, spices
Eggs	Eat as desired – must be well-cooked	
Fats/Oils	Butter, cream in moderation, margarine, mild mayonnaise, oils, cream cheese	Nuts, olives and all other fats, including cream sauces. When possible choose healthy oils & fats (canola & olive oil)
Fruit	Ripe bananas, cooked apples without skins, cooked apricots, peaches, pears, cherries, melon. Canned and well-cooked fruits. Juice without pulp	All raw fruits except for bananas. All cooked fruit with skins and/or seeds. Berries, plums, pineapple, prunes and raisins. Dried fruit or fruit pulp
Grains		Whole grains, breads or cereals made from whole grains
Meats & Proteins	Any baked, broiled, boiled or roasted. Tender, ground, and well-cooked beef and poultry. Tofu, fish, eggs, smooth nut butters (peanut, soy, almond, or sunflower)	Fried meats, luncheon meats, hot dogs, bacon, sausage. Tough meat or meat with gristle. Fried fish. All types of beans, dried beans. Crunchy nut butters
Milk & Milk Products	Limit to 2 servings per day. Milk: Skim, 2%, lactose-free or whole; soy milk, rice milk, or almond milk. Cottage cheese; mild cheese; yogurt or soy yogurt, plain or flavored with allowed fruits; sour cream, sherbet	Strong cheese; cheese spreads, yogurt containing seeds or skins of fruits. If you are lactose intolerant: Avoid milk and foods made with milk
Nuts/Seeds	None	Nuts. Seeds.
Other	Broth and strained soups made from allowed foods	
Sweets	Cream candies, hard candies, clear jelly, sugars	Any made with chocolate, nuts, coconut, marmalade, preserves, raisins, jam, caramels
Vegetables	Canned & well-cooked vegetables. Tender asparagus tips, beets, carrots, squash, mashed & white potatoes (no skin), mushrooms, tomato sauce, puree or paste (if tolerated). Vegetables without skins; vegetable juice	All raw vegetables. All other cooked vegetables. No cooked greens or spinach. No French fries or potato chips

Call Your Doctor or Nurse

- If you are feeling dizzy
- If you have a fever of 100.5° F (38° C) or higher
- If you have diarrhea and cramps for more than a day
- If you experience pain at the rectum or have bleeding around the rectum
- If you have more than 3 episodes of diarrhea even after taking Imodium AD

FATIGUE

Fatigue is one of the most common side effects from all forms of treatment and the healing process. It can be related to your physical healing, as well as your emotional wellbeing. It is extreme feelings of being tired, and can affect physical and mental health. It impacts daily interactions, tasks, and relationships. It can make you feel helpless and isolated. Chemotherapy can make you fatigued so can other things like anemia, depression, pain, certain medications, and/or trouble sleeping. Fatigue caused by chemotherapy can last for weeks or months after treatment is over.

Signs and Symptoms of Fatigue

- Total lack of energy
- Decreased ability to complete usual activities
- Difficulty talking, walking, and thinking
- Difficulty making decisions

Tips that may help you regain control of fatigue:

Eat/drink well

- Make healthy foods when you feel well. Freeze them to eat later
- Eating helps you keep up your strength. Some people find it easier to eat 5 or 6 small meals instead of 3 big meals
- Most people need to drink at least 8 cups of fluid a day

Be as active as you can

- Try to be active everyday. Even 15-20 minutes can help give you energy
- Try easier or shorter versions of activities you enjoy
- Pace yourself
- Ask a WMCC social worker about wellness program opportunities

Take time to rest

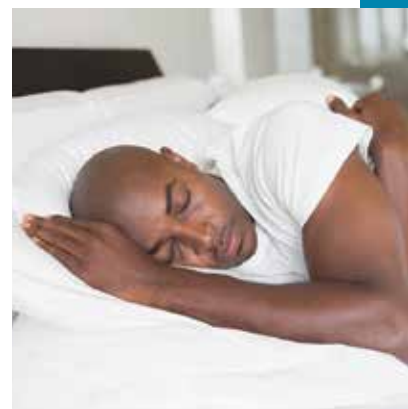
- Listen to your body, rest when you feel tired
- Try to take short naps or breaks instead of one long break during the day
- Make a bedtime routine. Bathing or listening to music before you go to sleep may help you relax
- Sleep at least 8 hours every night

Make a plan to feel less tired

- Do less, let others help you. (ex: grocery shopping, laundry, mowing the lawn)
- Do activities that are most important first
- Take time off from work or work fewer hours

Call Your Doctor or Nurse

- If you have been too tired to get out of bed for the past 24 hours
- If you feel confused or cannot think clearly
- If you suddenly feel an increase or worsening of fatigue
- If you become dizzy
- If you fall and hurt yourself
- If you feel a loss of balance when walking or when getting out of bed or a chair
- If you have trouble waking up
- If you have a problem catching your breath
- If you become depressed



PAIN

Side effects from the chemotherapy treatments may cause pain in the body such as nerve pain, bone pain, muscle pain, headache, stomach pain, or mouth sores. The cancer itself may cause pain as well.

It is very important to let your doctor or nurse know if you have pain. There are many ways to manage this side effect.

Helpful Tips to Manage Your Pain

- Talk to your doctor or nurse about your pain at each office visit
- Know that pain is a message that your body needs help
- Keep track of your pain by writing down a description of the pain you are experiencing such as:
 - Where and when the pain occurs
 - How long the pain lasts
 - What makes the pain worse
 - Whether anything, such as heat, ice or medicine, eases the pain
 - How long your pain-relieving technique works and how much relief it provides
 - Any side effects you experience when taking pain medication
 - How the pain is affecting your quality of life – for example, is it keeping you from sleeping, eating, walking, working or exercising?
 - Use the pain scale of 0-10 to describe how strong the pain is:



- If a pain medication is not working, let your doctor know
- Try non-medical pain management techniques such as relaxation exercises, yoga, and meditation

NERVE CHANGES – NEUROPATHY

Some chemotherapy can cause nerve problems. You may have a numb, tingling, burning, or weak feeling in different parts of your body. It often begins in your hands or feet and is called “peripheral neuropathy.” Other things that can affect these nerves are diabetes, medication for other conditions, nutritional imbalances, and alcohol usage.

Symptoms Include:

Movement Problems

- Numbness
- Weak, achy, sore muscles
- Loss of balance/falling
- Pain with walking
- Trouble holding or picking items up
- Trouble with buttoning your clothes
- Shaking/trembling
- Difficulty lifting foot off gas pedal or climbing stairs
- Weakness
- Sensation of wearing gloves

Pain

- Tingling (pins and needles)
- Burning
- Cold

Hearing Problems

- Trouble or changes in hearing

Stomach Problems

- Constipation/abdominal pain

These changes often start slowly and worsen as treatment continues. Once chemotherapy is stopped, these changes may lessen slowly over time but some cases may not disappear. Tell your doctor if you experience any of the above symptoms.

Tips for Managing Nerve Changes

Prevent falls

- Remove rugs
- Put up rails on walls or in bathroom
- Put non-slip bathmats in shower or tub
- Wear sturdy shoes
- Use a cane/walker
- Be careful when handling knives, scissors, and other sharp or dangerous objects

Protect your hands and feet

- Use hot pads in the kitchen
- Wear gloves when working outside
- Wear shoes inside and outside of house
- Check your feet for cuts every day
- Before you bathe, ask someone to make sure the water in the bath or shower is not too hot

Ask for help

- Ask for help with things such as buttoning clothes, using the computer, opening jars, or holding a pen
- Slow down and give yourself more time to do things.



URINARY, KIDNEY, AND BLADDER CHANGES

Chemotherapy can irritate the bladder or cause damage to the bladder or kidneys. Some chemotherapy treatments require a blood test prior to your treatment to check how well your bladder and kidneys are working.

There are some chemotherapy medications that will cause your urine to change color for a short time after receiving the medication, such as orange, red, green or dark yellow. The medication can give your urine a strong medicine-like odor. Talk with your nurse or doctor to find out if the drugs you are taking may have these effects.

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

Tips to Manage Urinary Problems

- Drink plenty of fluids (such as water, juice, broth, ice cream, soup, popsicles, and jello)
- Limit drinks that contain caffeine (such as coffee, black tea, cola products)
- Avoid alcohol drinks

Call Your Doctor or Nurse If You Have

- Pain or burning with urination
- Frequent urination
- Difficult urination
- A feeling you must urinate right away
- Reddish or blood in urine
- Fever
- Chills



SEXUAL HEALTH INFORMATION

Sexual health is defined as sexual function, intimacy, and relationships. Many aspects of your health are impacted by treatment such as hormonal balance, mental health, and physical side effects. Some can be short term, some can last longer. It's important to talk to your WMCC healthcare team regarding changes, concerns, and struggles with your sexual health. There are often opportunities for your healthcare team to help you improve your sexual health, and cope with side effects.

- Safe sex practices are always emphasized
- A condom should be used to help prevent transmission of infection and well reduce the partner's exposure to chemotherapy agents found in body fluids
- A condom must be used for 48-72 hours after having received IV chemotherapy. If you are participating in a clinical trial, please ask for the guidelines from the protocol nurse
- If you have been told that your white blood cells are low or your platelets are low, then sexual intercourse should be avoided during this time

Women and Sexuality

All women who have not gone through menopause should use a form of birth control. Do not get pregnant during treatment because it can harm an unborn baby.

SEXUAL PROBLEMS YOU MAY HAVE	WAYS TO RELIEVE SYMPTOMS
Dryness or itchy feeling in the vagina	<ul style="list-style-type: none"> • Wear cotton underwear • Do not wear tight pants or shorts • Use water based vaginal lubricant when having sex • If sex is painful because of dryness, use a vaginal moisturizer (found near the feminine products in the stores)
Hot flashes	<ul style="list-style-type: none"> • Dress in layers, with an extra sweater that you may take off • Be active, do some form of exercise • Reducing stress, try meditation, or other ways to relax • Talk with your doctor, there are medications that may be helpful
Infections in the vagina or bladder	<ul style="list-style-type: none"> • Replens® is a vaginal moisturizer product that can be used 3 or 4 times per week. It will keep the vagina moist; it may also prevent yeast infections • Report signs and symptoms of bladder infection to your doctor, such as pain with urination, difficulties with urination, frequent urination, fever
Periods that are not regular or no period	<ul style="list-style-type: none"> • Your menstrual periods may become irregular or stop during treatment. They may – or may not – come back after chemo. In some women, they come back, but menopause may start at a younger age than expected
Stress, fatigue, or little interest in sex	<ul style="list-style-type: none"> • Look for other ways to express affection, such as kissing, cuddling or other shared activities

Men and Sexuality

Chemotherapy can damage sperm and cause birth defects. To make sure your partner does not get pregnant, use a condom. Your partner may also need to use birth control. Always use a condom when you have sex, because some chemotherapy may be in your semen.

SEXUAL PROBLEMS YOU MAY HAVE	WAYS TO RELIEVE SYMPTOMS
It may be difficult to get or keep an erection	Talk with your doctor, there are medications that may be helpful
You may not be able to have an orgasm	Talk with your doctor, there are medications that may be helpful
You may feel too tired or stressed to have sex	Look for other ways to express affection, such as kissing, cuddling or other shared activities



Coping with Sexuality Changes

Talk about your feelings and concerns with your partner. It may also be helpful to talk with someone. This may be your doctor, nurse, social worker, or clergy member.

For additional information, the following agencies may be contacted and can provide literature:

American Cancer Society 1-800-ACS-2345 . www.cancer.org

Planned Parenthood Organization 1-800-230-7526 . www.plannedparenthood.org

United Ostomy Association Inc. 1-800-826-0826 . www.uoaa.org

Fertile Hope 1-866-965-7205 . www.fertilehope.org

Sexuality Information and Education Council of the United States 1-212-819-9770 . www.siecus.org

HOT FLASH SYMPTOM MANAGEMENT

The intensity of hot flashes accompanying treatment with tamoxifen or an aromatase inhibitor eventually improves for many people after the first three to six months. Because of the conversion of androstenedione from the adrenal glands into estrone by fat and muscle cells, heavy or muscular people experience less severe hot flashes than thin people. If you smoke, your blood vessels lose some of their ability to radiate heat, so you may suffer more severe hot flashes.

Beat the heat naturally

The best way to beat a hot flash is naturally. Hot flashes have a lot to do with the low levels of estrogen in your body, but other factors can cause your temperature control to go out of whack.

Avoid triggers

If you can identify the things that trigger your hot flashes, you've made the first step in getting the upper hand. Keep a record of when they occur and what you were eating or doing, or how you were feeling at the time. Many people find that stress tops the charts as a trigger. Was that hot flash in the boardroom a random hit, or were you feeling under pressure at the time? Was it a full day of pressure without a break?

Solution: Ease the pressure. Give yourself more time to plan your work, to rehearse your presentation, to deliver your assignments, to arrive where you're going. If you are doing a series of presentations, give yourself a chance to relax and cool off between sessions. And plan your schedule so you avoid meetings or decision making when you're most likely to be in a sweat.

Other hot flash triggers:

- | | | | |
|--------------|--------------|---------------|---------------|
| • alcohol | • spicy food | • saunas | • hot rooms |
| • caffeine | • hot food | • hot showers | • hot weather |
| • diet pills | • hot tubs | • hot beds | • smoking |

Hot flash survival tips

- Dress in layers, so you can peel off one layer after another as you get warmer.
- Don't wear wool, don't wear synthetics, and be wary of silk. That leaves cotton, linen, rayon, and more cotton. (Look at the bright side: You'll save on cleaning bills, and you can stop worrying about moths.)
- Avoid turtlenecks. Stick to open-neck shirts.
- Keep ice water at hand that you can sip to cool down your insides.
- Where possible, lower the thermostat. Maybe it's time for a decent air conditioner or a ceiling fan. Or maybe you'd prefer one of those little hand-held battery-operated fans or the foldable kind you flutter in front of your face. You can find perfectly adequate paper fans for about a dollar.

- Wear cotton pajamas or a nightgown. If you perspire a lot at night, your nightclothes are easier to change than the sheets.
- Use cotton sheets only, not synthetics.
- Get a bigger bed if you and your partner are on different heat planets but you still want to stay in close orbit.
- Take a cool shower before bed.
- Try a mild medication like Tylenol.
- Arrive at meetings early so that you can get the coolest seat.
- Use your freezer liberally. A number of people talked about opening the freezer at home (or in the supermarket) and sticking their head in when a hot flash hits.

Lifestyle changes to alleviate hot flashes

Exercise

Increasing your level of activity (for example, taking the stairs instead of the elevator) can reduce hot flashes and have a positive impact on just about every other symptom attributed to menopause and growing older. Exercise also increases endorphin levels, increasing your threshold for pain.

Relaxation and stress reduction

It isn't unusual to have trouble dealing with stress, especially if you've undergone treatment for cancer. You may find that one of the following techniques will help you minimize the devastating effects of stress on your body:

- | | | |
|------------------------|-----------------|--------------------------|
| • relaxation exercises | • visualization | • yoga |
| • breathing exercises | • massage | • biofeedback techniques |
| • meditation | • hypnosis | |

Changing your diet

Over time, a low-fat diet helps some people with hot flashes. Losing excess weight helps, but losing too much weight, or being too thin, can worsen symptoms. As you consider other food changes, keep in mind that natural doesn't mean harmless. Herbal remedies and soy preparations may work because of their plant estrogens, but you can't assume that just because an estrogen comes from a plant, it's a safe remedy.

Vitamins

Some people find that taking vitamin E every day (800 I.U., range 400–1000) helps. If vitamin E helps you, great, but if you have significant hot flashes, you will probably need something more effective.

Relieving hot flashes with medications

If you have tried these lifestyle, nutritional, and alternative medicine recommendations, and they have not helped, you may feel compelled to go on to stronger remedies, available only through your physician.

FERTILITY

Fertility, the ability to conceive children, can be impacted by treatment. These effects can be either temporary or permanent. Pregnancy is still possible while on treatment (chemotherapy, radiation, hormone treatment, and after surgery) but can be extremely dangerous for all involved. Birth control needs to be used.

Infertility means that you cannot start a pregnancy. The risk of infertility from cancer treatments depends on many things including:

- The type of chemotherapy
- The dose and duration of chemotherapy
- Your age at the time of treatment
- Your pre-treatment fertility status



Female fertility can be affected by cancer treatments by:

- Surgical removal of the uterus or ovaries
- Chemotherapy or radiation therapy can affect the eggs, hormone levels, or the function of the ovaries, uterus or cervix

Male fertility can be affected by cancer treatments by:

- Surgical removal of the testicles
- Chemotherapy or radiation therapy that damage the sperm, lower the sperm count, or affect the quality of the sperm
- Damage to the sperm transport system which prevents sperm from leaving the body

There are ways to preserve fertility before starting chemotherapy. Talk with your doctor or nurse about your options as soon as possible, and prior to starting cancer treatments.

To learn more, refer to the resource and the internet section at the back of this book.

MEMORY CHANGES/CHEMO BRAIN

Many people who have gone through chemotherapy notice some temporary changes in their memory or thinking process.

What is causing these changes?

They may be caused by stress, medicine, or the cancer and cancer treatment.

What are Chemo brain symptoms?

- Forgetting things you usually have no trouble recalling (memory lapses)
- Trouble concentrating (can't focus on task at hand)
- Trouble remembering details like names, date and larger events
- Trouble multitasking, unable to complete more than one task at a time
- Taking longer to finish things (disorganized, slower thinking and processing)
- Trouble remembering common words

Tips for managing memory changes

Plan your day

- Do things that need the most thinking at the time of day when you feel best
- Set up and follow routines
- Get extra rest and sleep
- Don't multitask, focus on one task at a time

Get help to remember things

- Write down or tape record things you want to remember
- Write down important dates and information on the calendar/daily planner
- Use a pill box or calendar to help keep track of your medicines
- Exercise your brain by taking a class, do word puzzles
- Exercise your body
- Track your memory problems by keeping a diary when symptoms are most prevalent

Ask for help

- Ask a friend or family member for extra help when you need it.
- If you are very confused, have someone stay with you. Don't stay home alone.
- Try not to focus on how much symptoms bother you, accepting the problem will help you deal with it

Telling Others

- Tell family, friends, and your health care team. You are not stupid or crazy – you just have a side effect that you have to learn to manage. Even though this is not a change that is easy to see, like hair loss or skin changes, your family and friends may have noticed some things and may even have some helpful suggestions. For instance, your partner may notice that when you are rushed, you have more trouble finding things

Talk with your Doctor or Cancer Care Team if:

- Symptoms are causing trouble at work or in your daily activities
- At your office visit, write down questions, bring a med list and a family or friend with you to help remember what was discussed





SAFE HANDLING OF ORAL CANCER MEDICATIONS (Chemotherapy)

Oral cancer medications are taken by mouth in the form of capsules, tablets or liquid. These tips will help you understand how to safely take your oral cancer medications (chemotherapy). This information will also help your caregiver avoid exposure to unsafe versus unhealthy body fluids or waste (urine, stool, semen, and vomit) while assisting in your care. It is important to understand that oral cancer medications are very potent and need to be dealt with carefully.

How to Take Your Medication

- Wash your hands before and after handling the medication
- Swallow each tablet or capsule whole; do not chew them. If you are unable to swallow the pill, talk to your doctor about other ways to take your medication
- If you miss a dose, take it as soon as possible. However, if it is almost time for your next dose, skip the missed dose and go back to your regular dosing schedule. Do not double the dose. See the information that came with your medicine for more information. If you are on a clinical trial, you will be given special instructions if you miss a dose
- If you are instructed to dissolve the oral cancer medication in liquid, do this in a paper or plastic cup that can be thrown away
- If you become sick and are unable to keep the pill down, make sure to call your cancer doctor

Storage

- Most oral cancer medications are stored at room temperature, away from excessive heat and moisture
- Do not store your oral cancer medications in the bathroom. Check medication labels to see if special storage or handling is needed, such as refrigeration or protection from light
- Keep the medicine in its original container, in a safe place away from other family medications. All medications need to be kept out of the reach of children and pets
- Oral cancer medications should be in separate medication pill containers from other medications, if you have decided to use a sleeve (pill box) to aid you in adherence to your therapy

Body Fluids – THIS APPLIES TO BOTH ORAL & IV CHEMOTHERAPY MEDICATION

- Small amounts of cancer medication are present in your body fluids or waste (urine, stool, semen, and vomit). If you are exposed to any of these body wastes, wash the area that was touched with soap and water right away
- You may use the toilet as usual. Wash your hands well with soap and water after using the toilet, and wash your skin if urine, vomit or stool gets on other parts of your body
- Others in your household may use the same toilet as long as all body fluids or waste (urine, stool, semen, and vomit) is flushed down the toilet
- A condom must be used for 48-72 hours after taking your last cancer medication. If the medication is taken every day, then condoms must be used throughout your entire treatment. If you are participating in a clinical trial, please ask for the guidelines from the protocol nurse

Caregivers

- Caregivers should wash hands before and after giving oral cancer medications, or they can wear gloves when handling the medication
- Always wear gloves when disposing of urinal or commode waste and cleaning of equipment. Wash your skin immediately if touched by urine, vomit or stool

Contacts

- If you feel you are having side effects from your cancer medications or have any questions or concerns, contact your doctor – (269) 382-2500



Disposal of Medication

Normally you will not have extra medication, but if you do, follow these steps for disposal.

- Read your accompanying materials for special disposal instructions. Some oral cancer medications must be returned to the dispensing pharmacy. If this is not the case then:
 - Do NOT flush your medication down the drain or toilet. Instead, “Wrap and Trash” the medication by wrapping with duct tape and then wrapping in two plastic bags before putting in the trash
 - Another method of disposal is to take the medication out of its original container and mix with kitty litter or used coffee grounds and then place in a can or zipper bag and throw away

You may also contact your public health department to see if they have a drug disposal program or contact the Michigan Department of Environmental Quality at (517) 335-2690 or www.michigan.gov/deqwaste

This information was adapted from the Third Edition of the Chemotherapy and Biotherapy Guidelines and Recommendations for Practice, Appendix 3 Safe Management of Chemotherapy in the Home, by the Oncology Nursing Society, the University of Michigan HomeMed Medication Patient Guide, Michigan Department of Public Health Medical Waste Regulatory Program.

PATIENT EDUCATION FOR PORTACATH OR PORT

Why Do I Need a Port?

- A port eliminates the need to find an arm vein every time you get your chemotherapy. This stops the prodding in your arm and risk of “blowing” your vein
- Some types of chemotherapy are uncomfortable when injected into a vein so the port avoids this discomfort
- Some types of chemotherapy can only be given through a port because they are dangerous to give through a vein

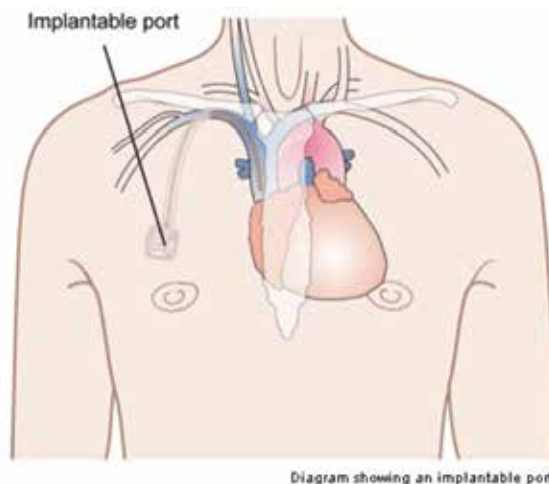
What is a Port?

- A port is a small device that is surgically placed under the skin, usually in the upper chest area
- It has two basic parts: a round basin and a small tube-like catheter
 1. The basin is the area that you can sometimes see under the skin like a small bump, smaller than the size of a quarter
 2. The catheter is a tube that is connected to the basin and ends in a large vein in the chest



How is a Port Placed?

- Through an outpatient procedure that lasts about an hour
- The port is placed under the skin usually between your collarbone and breast by either a surgeon or an interventional radiologist
- The port is put in your chest under local anesthesia; this means you will not be put completely to sleep. The local anesthesia will numb your skin so that you will feel pressure but no sharp pain

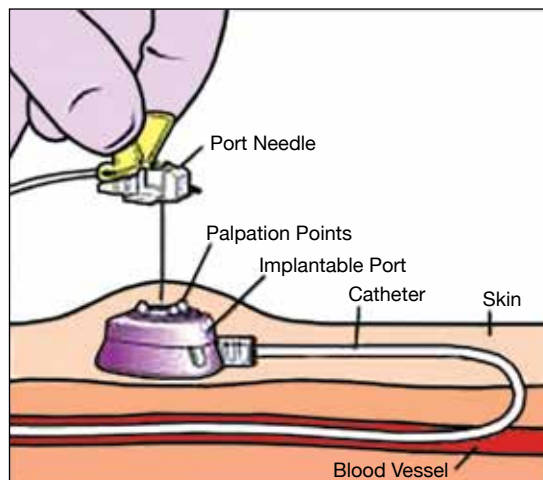


What do I do to Get Ready to Have my Port Placed?

- You need to let your doctor know what medications you are on. This is especially important if you are on blood thinners such as aspirin, Coumadin® or Plavix®
- The night before your procedure, you cannot have anything to eat or drink after midnight

How are Medications and Fluids Delivered Through the Port?

- To access your implanted port, the nurse will insert a special non-coring needle through your skin; you will probably feel a pricking sensation. A local anesthetic cream is available if accessing is too uncomfortable for you
- The medication or fluids flow through the needle, into the portal chamber and through the catheter directly into the bloodstream



Can Blood Tests be Drawn Through my Port?

- Your blood test will be drawn in the lab using your arm. If the phlebotomist has difficulty getting blood in this manner, future labs may be drawn through your port

How do I Care for My Port When Chemotherapy is Finished?

- You will need to have your port accessed and flushed by a nurse every 6-8 weeks to make sure it continues to work properly. Appointments will be made for port flushes once your chemotherapy is finished. If you do not see a PORT FLUSH appointment on your schedule, please ask an infusion scheduler to add one

IMMUNIZATIONS

The general rule for patients who have an immune system that has been weakened: Patients can safely receive vaccinations that are inactivated (killed) or live-attenuated. Patients cannot receive vaccinations that are live.

Influenza injection (flu)

All patients and the people who live with or care for the patient need to obtain a flu shot every year. People with cancer should not receive the nasal spray vaccine. The flu shot is made up of inactivated (killed) viruses, and the nasal spray is made up of the live viruses. The flu shot is safer for those with a weakened immune system.

Pneumococcal Injection

It is recommended for all adults age 65 years of age and older. It is recommended for patients 19-65 years of age who have a condition that increases their risk of pneumococcal pneumonia. This would include all persons with cancer.

Zoster Injection (Shingles)

This is not recommended for patients who have an immune system that has been weakened. This would include patients who are on chemotherapy or high dose steroids.

Vaccinations of Caregivers / or Persons with Weakened Immune Systems

Can patients be in contact with other people who recently had a live virus vaccine (i.e. grandchildren)?

Here are the recommendations:

Flu shots: Recommend to receive the injection versus the nasal vaccine. If a child has received the nasal vaccine and the child is not sneezing or coughing already, there is no need for special precautions.

Measles: cannot spread the virus from the vaccine

Mumps: cannot spread the virus from the vaccine

Pneumococcal injection: cannot spread the virus from the vaccine

Rubella: cannot spread the virus from the vaccine

Smallpox: cover the injection site and use good hand washing if the patient touched the injection site

Varicella (Chicken Pox): Do not need to stay away from the person receiving the injection unless they develop a rash, it can then be spread to others. Thus, the patient must stay away from this person until the rash is gone

Zoster (Shingles injection): Do not need to stay away from the person receiving the injection unless they develop a rash, it can then spread to others. Thus, the patient must stay away from this person until the rash is gone



BENEFITS OF PHYSICAL ACTIVITY

Don't forget the importance of physical activity during treatment. Engaging in regular physical activity during your cancer treatment can help fight fatigue, help preserve and rebuild muscle and bone mass, reduce stress and anxiety, fight depression, and alleviate constipation. Aim for 30 minutes of moderate physical activity 5 days per week. If this seems like too much, start with smaller goals and work up to 30 minutes 5 days per week. Remember, something is always better than nothing! Talk with your doctor prior to beginning a new exercise regimen.

* Do not walk if you have a fever or if you are unable to eat or drink.

EMOTIONAL WELLNESS: TAKING CARE OF YOURSELF

Treatment can impact not only your overall health, but your lifestyle and routine. It disrupts your daily schedules and responsibilities, changing the dynamics of your family and support system.

For Patients:

- It is important to take care of yourself while undergoing treatment. Your body needs extra care during this time
- Get plenty of rest
- Eat a well balanced diet. Your body needs to build strength to heal. WMCC dietitians can help you
- Accept help. Your caregivers are there to support you. Consider tasks they can help with that will let you rest, make them feel helpful, and not impact your independence. Assign one point person to take charge
- Plan activities for when you are feeling well. Enjoy your hobbies and recreational fun
- Try to think positively. Treatment is a time when you are able to fight your disease
- Exercise if you can. Simple exercises such as 20 minutes a day of walking, swimming, riding a bike will help you feel better about yourself, and may improve sleep, your appetite, and help you get rid of tension
- Relaxation techniques including breathing, yoga, massage therapy, and meditation can help alleviate fear and anxiety
- Remember you are normal. Serious illness can be consuming. While it adds a new perspective to your life, it is one portion of your life. Try to continue to enjoy the things you did before your illness, and that includes laughter and fun
- Set social limits. It can be overwhelming to have your support system worry about your health. Utilize your caregivers and supports by setting limits on visits, scheduling times to give updates on social media, etc.
- Spiritual support can be helpful when facing a serious illness
- Social workers at the cancer center are trained in a variety of supportive counseling techniques, and are knowledgeable about resources in your community. They can help you find support that works for you
- There are many support groups and mentoring programs in the community. Sharing your experience with someone in a similar situation may be helpful. Talk with the social workers to find one that may work for you
- Ask questions - your healthcare team is here to help you. Use them as a resource and a tool



Talk to your healthcare team if you have feelings of extreme sadness, worry, anxiety, depression and fear that are changing how you function on a daily basis. Your doctor may discuss a medication to help through this challenging time, and the social work team may assist with finding support to help you cope.



For Caregivers and Loved Ones:

- It's difficult to watch someone you love experience treatment. You must also take care of yourself to stay healthy
- Consider what your loved one (the patient) would consider supportive - it may be different than what you would want if you were in their position. Talk with your loved one about what they think may be helpful
- Schedule time to do your own self care including hobbies, exercise, meditation, and socializing
- Assign tasks to other supportive persons. Your loved one may be overwhelmed, and may need help updating family and friends, preparing healthy meals, setting limits, and scheduling social time
- Take notes - many of the visits can be overwhelming for both of you
- Find your own support. Your experience is different than your loved one's experience. Having separate support to talk through your emotions and feelings is important to the health of your relationship
- Remember, you are normal. Serious illness can be consuming. While it adds a new perspective to your life, it is one portion of your life. Try to continue to enjoy the things you did before your illness, and that includes laughter and fun
- Spiritual support can be helpful
- Social workers at the cancer center are trained in a variety of supportive counseling techniques, and knowledgeable about resources in your community. They will help you with finding support that works for you
- Ask questions - you are part of the healthcare team, and an advocate

WORDS TO KNOW

Adjuvant Therapy: Anticancer drugs or hormones given after surgery and/or radiation to help prevent cancer from coming back

Anemia: Not enough red blood cells to carry the oxygen your body needs

Alopecia: Hair loss

ANC: Absolute neutrophil count. Immature white cells that help fight infection

Antibiotic: Medication used to fight germs or bacteria that cause infection

Antiemetic: A medicine that prevents or controls nausea and vomiting

Biological Therapy: The use of drugs to stimulate body's own immune system to attack cancer cells

Bone Marrow: The inner, spongy tissue of bones where white blood cells, red blood cells and platelets are made

Cancer: A group of diseases where abnormal cells grow out of control

CBC: Complete blood count. Used to determine number of white blood cells, red blood cells, and platelets

Chemotherapy: Treatment with drugs that kill cancer

Chemo-brain: Changes in memory or thinking processes due to chemotherapy treatment

Clinical Trials/Research Studies: Type of research study that tests how well new medical approaches work in people. These studies test new methods of screening, prevention, diagnosis, or treatment of a disease

Constipation: When bowel movements become less frequent and stools are hard, dry, and difficult to pass

Cycle: Number of days in one treatment schedule

Diarrhea: Frequent bowel movements that may be soft, loose, or watery

Dehydration: Condition caused by the loss of too much water from the body and not replacing it

Dysphagia: Difficulty swallowing

Electrolytes: Substances in the body that help move nutrients into cells and flush waste out of cells. Helps keep brain, heart, nerves, and muscles functioning properly

Electrolyte Imbalance: Too many or too few electrolytes

Fatigue: Unusual tiredness that does not go away by resting or a good night sleep

Hand-Foot Syndrome: Abnormal pain, swelling, redness in hands or feet due to some chemotherapy drugs

Hormonal Therapy: The use of medications to either increase or decrease hormones in the body to stimulate a response to fight cancer

Hospice: An interdisciplinary program that provides support and care for terminally ill persons and their families by addressing their physical, social, emotional, and spiritual needs

Immune System: The body's defense system against bacterial, viral, and fungal infections

Immunotherapy: Using the body's own defenses to attack cancer cells

Impotence: Not being able to get or keep an erection

Incontinence: Not able to control the flow of urine from the bladder

Infection: Invasion of a bacteria, virus, or fungus that are not normally present within the body and can make you sick

Infertility: For women, it means you may not be able to get pregnant. For men, it means that you may not be able to get a woman pregnant

Inflammation: Redness, swelling, pain, and/or feeling of heat in an area of the body, often due to infection, injury, or irritation

Injection: Using a syringe and needle to push fluids or drugs into the body; often called a "shot"

Intraperitoneal: Within the peritoneal cavity, also called IP

Intravenous: Within a blood vessel, also called IV

Long-term Side Effects: Problems with chemotherapy that do not go away

Malignant: Means cancerous or having cancer

Metastasis: The spread of cancer from one part of the body to another

Mucositis/Stomatitis: Inflammation/sores of the lining of the mouth and GI tract

Nadir: Phase in the treatment cycle when white blood cells, red blood cells and platelet counts are at their lowest

Neoadjuvant Chemotherapy: Chemotherapy given before surgery or radiation to shrink the tumor

Nausea: Feeling queasy or sick to your stomach

Neutropenia: Lower than normal white blood cell count that could lead to infection

Pain: Discomfort caused by illness or injury

Palliative Care: Care given to improve the quality of life of patients with serious or life-threatening diseases



Palliative Treatment: Treatment to relieve, rather than cure, symptoms caused by cancer

Peripheral Neuropathy: Numbness, tingling, or burning of hands and feet

Peritoneal Cavity: The space within the abdomen that contains the intestines, stomach, liver, ovaries, and other organs

Platelet: A type of blood cell that helps prevent bleeding by clotting the blood

Pump: A device that is used to deliver a precise amount of a drug at a specific rate

Recurrence: Cancer that returns after not being detected for a period of time

Red Blood Cell: Blood cells supplying oxygen and iron throughout the body

Side Effect: A problem that occurs when treatment affects healthy tissues or organs

Thrombocytopenia: A decrease in the number of platelets in the blood that may result in easy bruising and excessive bleeding from wounds, or bleeding in mucous membranes and other tissues

VAD: Vascular Access Device - Catheter or port that are surgically placed in a large vein and stay in for extended periods of time. Used to give IV medications, blood products or fluids

Vomiting: When you throw up

White Blood Cell: Blood cells that fight infection

RESOURCES AND THE INTERNET

The Internet is a wealth of information, however not all of it is reliable. WMCC recommends patients and loved ones use caution when using the internet as an educational tool. WMCC has resource libraries of reliable educational materials regarding cancer at the Center. Additionally, the clinical team has a large variety of recommended tools and websites that provide evidence based reliable information. A partial list is provided below. A more complete list can be found at our website www.wmcc.org or ask your healthcare team for more information on what's right for you.

Ways to Learn More

National Cancer Institute (NCI)

Find out more from these free NCI services.

Call: 1-800-4-CANCER (1-800-422-6237)

Visit: <http://www.cancer.gov>

Chat: <http://www.cancer.gov/livehelp>

E-mail: cancergovstaff@mail.nih.gov

American Cancer Society

Offers a variety of services to patients and their families. It also supports research, provides printed materials, and conducts educational programs.

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

Visit: <http://www.cancer.org>

American Institute for Cancer Research (AICR)

Offers free nutritional education on topics such as cancer and soy, nutritional benefits, suggestions for healthy lifestyle, recipes and more.

Visit: <http://www.aicr.org>



Cancer Support Community

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

Call: 1-888-793-9355 or 202-659-9709

Visit: <http://www.cancersupportcommunity.org>

E-mail: help@cancersupportcommunity.org

CancerCare, Inc.

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

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

Visit: <http://www.cancercare.org>

E-mail: info@cancercare.org

Fertile Hope

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

Call: 1-866-965-7205

Visit: <http://www.fertilehope.org>

The Fertility Center

5659 Stadium Drive
Kalamazoo, Michigan 49009

Call: 1-269-324-5100

Visit: www.fertilitycentermi.com

Livestrong Foundation

Advocacy, education, and support for cancer patients regarding navigating the system, financial resources, fertility, transitions, and more. Also, educational information on healthy lifestyle, fitness during and after cancer care, free weight loss tools such as food tracking, education on survivorship and more.

Call: 1-855-220-7777

Visit: <http://www.livestrong.com>

Medline Plus

Information about health topics, drugs and supplements. This website has language translation links.

Visit: <http://www.nlm.nih.gov/medlineplus/cancer.html>

National Oral Health Information Clearinghouse

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

Call: 1-866-232-4528

Visit: <http://www.nidcr.nih.gov>

E-mail: nidcrinfo@mail.nih.gov





WMCC

West Michigan Cancer Center

Radiation & Surgical Specialties

200 North Park Street, Kalamazoo, MI 49007-3731 | Phone 269.382.2500 | www.wmcc.org