

We believe in hope.

in courage.

in a new normal.

in life.

in doctors.

in research.

in you.



Willamette Valley Cancer Institute
520 Country Club Road
Eugene, OR 97401
(541) 683-5001

Office hours:

Monday – Thursday, 7:30 AM – 6:30 PM
Friday 7:30 AM – 6:00 PM

After hours:

If you are having a medical need after hours, please call the numbers above to speak to a physician on call. If you need a prescription refill, please call your pharmacy. Be prepared with the following information when you call.

- Name of your provider
- Type of cancer you have
- Names of current treatment medications
- The date of your last chemotherapy or radiation treatment
- If you have a port/PICC line.
- Reason for your call

Parking

- Due to limited parking, please do not bring campers, RVs, boats, trailers.
- Parking available in front and side of the 520 Country Club Road Site

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Important Things to Know Before Starting Treatment

- Fill prescriptions given to you by your oncologist. Some may need to be taken before treatment starts; others are to be used after treatment. Your doctor or a nurse will let you know when to take them.
- You may be given medications before and after treatment to prevent / manage nausea.
- A steroid is often used to prevent side effects and can cause a temporary spike in blood sugar levels in people with diabetes. If you have diabetes please discuss this with your doctor.
- Your doctor will order lab work on a regular basis to check your blood cells, kidneys, liver and chemistries (such as sodium and potassium). Treatment won't be started until the lab results are available to make sure it is safe for you to get treatment.
- Have a working thermometer on hand for checking your temperature at home.
- Please arrange to have someone drive you to your first treatment. You can talk to a nurse about whether you need a ride for future treatments.
- AVOID PREGNANCY while getting chemotherapy. This applies to females of childbearing age whether the patient or the partner of a male patient. Use a condom and one other type of contraception.
- Drink 64 ounces of non-caffeinated liquid daily during treatment to be fully hydrated.

The day of treatment:

- Drink 24-32 ounces of non-caffeinated liquids the morning of treatment.
- Eat a healthy breakfast and wear comfortable clothing.
- Take your regular medications unless told otherwise by your oncologist.
- If you take pain medication, please bring it with you in the original medication bottle.
- If you use oxygen, please bring it with you; we only keep a limited supply for emergencies.
- Bring food/snacks if your treatment is several hours – there is a refrigerator for your use.
- You can bring a blanket or we can provide one for you to use while you're here.

During treatment:

- Please limit the number of visitors to 1 or 2. No children under age 12.
- Cell phone use is permitted but please set to vibrate.
- You can bring a DVD player, iPod, etc. but please bring headphones/earbuds.
- No pets allowed in WVCI facilities. WVCI recognizes the value of service animals for patients and follows the guidelines set forth by the Americans with Disabilities Act.

How Chemotherapy Works

Chemotherapy is treatment that uses drugs to destroy cancer cells. It can be given in one or more ways:

- Intravenous (IV) – through a vein in the hand or arm, a PICC line or a Port
- Oral – pill form
- Injection – in a muscle or the fat layer below the skin
- Intraperitoneal – through a Port in the abdomen

Chemotherapy works by stopping or slowing down the growth of cancer cells. It can also harm healthy cells which can cause side effects. This binder contains general information to help you manage the side effects of chemotherapy.

There are many chemotherapy drugs. Your doctor chose the specific drug(s) that will treat the type of cancer you have. You will be given separate information sheets about the drug(s) you will be getting. Since the information sheets are more specific, you need to follow what is on them if it is different than what is in this binder. If you are not sure what to do, please call the clinic and ask to speak to a nurse.

Your doctor may give you a type of treatment called Immunotherapy alone or in addition to chemotherapy. Information about this treatment can be found in the [Immunotherapy](#) section of this binder.

This can be a difficult time for people. Our staff has the expertise to help you and your loved ones throughout your treatment. We hope that you have a positive experience. Please let us know what else we can do to assist you during your time here.

When to See Your Primary Care Provider (PCP)

To ensure quality care throughout your cancer journey, you need a team in place. The foundation of your team is your oncologist and your primary care provider (PCP).

Cancer care generally requires the technical knowledge and skills of specialty physicians, such as medical oncologists, surgeons and radiation oncologists.

Your PCP plays a central role during and after cancer therapy. An initial point of contact, your PCP will want to evaluate your symptoms, coordinate your care and work with you to make decisions regarding referrals.

Why you need your PCP

Cancer came at one point in your life, but what about the high blood pressure you've been dealing with since last year or the recurrence of pain from an injury in your 20s?

Your PCP is fundamental to your continuity of care, overseeing and caring for any infections, injuries, immune system problems, medications and lifestyle changes that may have nothing to do with cancer.

Patients who stop seeing their PCP for routine care may find they are cured of cancer only to overlook a preventable illness, from simple bacterial infections to life-threatening diseases.

Your cancer specialists

Willamette Valley Cancer Institute oncologists and other cancer-care providers on your team are here to ensure that you're receiving the latest and greatest cancer treatment. These specialists will work with your PCP to help you get the best overall care. That includes keeping your PCP up to date so he or she can help you achieve optimal health.

The big picture

Over the long term, a provider who knows your health history, your habits and your personality can more easily recognize any signs that indicate a potential change in your health, so continue seeing your PCP for regular check-ups and any new problems or symptoms, as you did before you developed cancer.

Common Side Effects and How to Manage Them

Anemia

Anemia occurs when you don't have enough red blood cells. Some types of chemotherapy affect red blood cells by causing your body to make less of them. These blood cells carry oxygen, so you might feel tired or notice your heart beats harder or faster. It can also make you feel short of breath or dizzy.

You will have blood work done throughout the time you're getting treatment, so the doctor can see if your red blood cells are getting too low. If they are, your doctor might give you a blood transfusion or a medication to cause your body to make more red cells.

Tips for managing:

- Get plenty of rest - try to sleep 8 hours each night and short naps during the day
- Limit your activities to what are most important to you
- Let family or friends help with cooking, cleaning, driving to appointments or other things you feel too tired to do
- Eat a well-balanced diet
- Stand up slowly to keep from feeling dizzy if you stand up too fast. When you've been lying down, sit up for a minute before standing.

Call the clinic if you feel dizzy, short of breath, like you're going to faint or if your heart is beating harder or faster than usual.

Appetite Changes

Chemotherapy can cause appetite changes. You may lose your appetite because of nausea or because the treatment causes you to lose your taste for food. It can also come from feeling depressed, anxious, or tired. Appetite changes can last for a few days or longer.

It's important keep eating even if you don't have an appetite. We have a dietician on site for your convenience. Please let a staff member know if you want a referral to the dietician.

Tips for managing:

- Eat 5-6 small meals or snacks each day instead of 3 big meals. Choose foods and drinks that are high in calories and protein. A list is provided in the Nutrition section of this binder.
- Set a daily schedule for eating rather than waiting until you feel hungry
- Drink milkshakes, smoothies, juice or soup if you don't feel like eating solid foods
- Use plastic utensils instead of metal ones. Some types of chemotherapy can cause a metal taste in your mouth. Cooking in glass pots and pans can also help
- Increase your appetite by doing something active like going for a short walk before time to eat. Don't drink a lot of liquid just before or during meals
- Add seasonings to food to increase flavor
- Choose foods that are easy to eat and keep snacks close by

Call the clinic if you're still having trouble eating or drinking
after following these tips.

Bleeding

Platelets are cells that help blood clot if you injure yourself. Chemotherapy can affect platelets by causing your body to make less of them. This can cause you to bruise easily and to bleed from your nose or gums.

Tips for managing:

- Use a very soft toothbrush and run hot water over the bristles to soften them before you brush your teeth
- Blow your nose gently
- Be careful when using knives, scissors or other sharp objects
- Use an electric shaver instead of a razor with a blade
- Apply firm pressure with a clean compress to cuts until bleeding stops
- Do NOT take aspirin or ibuprofen (Advil, Motrin) unless your doctor says you can
- The use of tampons is not advisable if your platelets are low.
- Use caution with toothpicks and dental floss if your platelets are low.
- Protect your feet, especially outdoors.

Call the clinic if you have bruising when you haven't bumped into anything, if you see tiny, red dots on your skin, if you see blood in the toilet after you urinate or have a bowel movement, or if bleeding lasts more than 10 minutes. Women should call if periods are heavier or longer than usual.

Constipation

Constipation can be caused by chemotherapy or other medications such as those for pain and nausea. It can also be caused by not being active or not eating and drinking as much as usual.

Tips for managing:

- Drink at least 8 cups of water every day. Warm or hot liquids can help stimulate the bowel. Prune juice may also help.
- Exercise as tolerated. This can include walking, swimming, using the stairs instead of the elevator, gardening or playing active games with kids. If you are unable to walk, try performing abdominal exercises in bed or transferring from bed to chair on a regular basis.
- A diet high in fiber can help soften stools. Remember to increase fluid intake whenever increasing fiber. A list of high fiber foods can be found in the Nutrition section of this binder.
- If you already have constipation, or have started on prescription pain medication, please see the information on the next 2 pages for instructions for taking a stool softener and laxative combination.

Call the clinic if you followed the instructions in this binder
and still have constipation.

Call if you haven't had a bowel movement in
more than 2-3 days.

Prevention and Management of Constipation

STEP 1 Prevention

Skip Step 1 if you are starting opioids or currently take opioids on a daily basis

Stool Softener: Docusate sodium (Colace®) 100mg tablets

Take 1 - 2 tablets by mouth twice daily as needed

Diet: A high fiber diet can help to prevent constipation. Talk to your dietitian or doctor about increasing your daily fiber or adding a fiber supplement like psyllium (Metamucil).

See page 3 for more information

Fluids: Your goal is to drink eight 8 oz. (240 mL) glasses of non-alcoholic fluids daily.
-Drink a hot beverage one-half hour before anticipated bowel movement.

Exercise: Your goal is 20 – 30 minutes of exercise daily, as tolerated

↓
IF YOU DO NOT HAVE A BOWEL MOVEMENT FOR ANY 48 HOUR PERIOD, PROCEED TO STEP 2.

STEP 2 Prevention / Management

Stool Softener + Laxative: Senna 8.6 mg plus docusate 50 mg (Senakot-S®) tablets

See page 2 for detailed instructions

Diet: If indicated by the dietitian, continue a high fiber diet.

Daily fluid intake should equal at least 64 oz to help your body process the fiber.

See page 3 for more information

Optional: If no response after 24 hours, you may add one or both of the following:

Magnesium hydroxide (Milk of Magnesia®)

Take 2 tablespoons (30 mL) by mouth once or twice daily

Polyethylene Glycol 3350 (MiraLAX®)

Take 1 capful (17 gm) in 6 – 8 oz. of liquid by mouth daily



↓
IF YOU HAVE NOT HAD A BOWEL MOVEMENT IN 4 DAYS, CONSULT YOUR HEALTH CARE PROVIDER BEFORE PROCEEDING TO STEP 3.

STEP 3 Management

Continue above methods and add the following:

Bisacodyl (Dulcolax®) 5 mg tablets

Start slowly; Take one tablet by mouth at bedtime

You may take 1 to 3 tablets by mouth up to three times daily, as tolerated

Do not take more than 6 tablets (30 mg) in a 24 hour period

↓
WAIT 24 HOURS FOR A RESPONSE

STEP 4 Management Discuss with nurse or physician before beginning

If still no response, discuss additional options with your health care provider, including:

- Bisacodyl or glycerin suppository
- Fleet's® enema
- Magnesium citrate
- Prescription agents (e.g. lactulose, metoclopramide, methylnaltrexone)

Step 2: Senna-Docusate Laxative Protocol

Make sure you drink plenty of fluids. If your urine is pale-clear, you are doing fine.

DAY ONE

Take 2 tablets by mouth at bedtime.

DAY TWO

If you DON'T have a bowel movement in the morning...

Take 2 tablets by mouth in the morning. If you still have no bowel movement by evening, take 3 tablets by mouth at bedtime.

If you DO have a bowel movement in the morning...

Continue taking 2 tablets by mouth at bedtime.

DAY THREE

If you DON'T have a bowel movement in the morning...

Take 3 tablets by mouth in the morning. If you still have no bowel movement by evening, again take 3 tablets by mouth at bedtime. OPTIONAL: May add on Milk of Magnesia and/or MiraLAX.

If you DON'T have a bowel movement in the morning...

Increase your dosage according to instructions at left.

If you have more than 2 bowel movements per day...

Decrease your dosage to $\frac{1}{2}$ to 1 tablet by mouth at bedtime. Then, continue dosage that results in 1 bowel movement per day.

DAY FOUR

If you DON'T have a bowel movement in the morning...

Continue to take 3 tablets by mouth in the morning *and* at bedtime. If you still do not have a bowel movement, consult with health care provider and rule out impaction.

- Maximum Daily Dosage for Adults: eight tablets per day.
- May add milk of magnesia at any point if needed.
- Hold senna-docusate dose if you're experiencing loose or watery stools
- You may continue for longer than one week if taking opioids or constipating chemotherapy regimen.

Diarrhea

Diarrhea is frequent bowel movements that may be soft, loose or watery. Chemotherapy can cause diarrhea. It can also be caused by infections or by medications used to treat constipation.

Tips for managing:

- Drink 8 to 12 cups of clear liquids each day. This can be water, clear broth, ginger ale or drink with added electrolytes such as Gatorade® or Pedialyte®.
- Eat low fiber foods. A list of low fiber foods can be found in the Nutrition section of this binder.
- Avoid alcohol and food or drinks that have caffeine.
- Avoid milk or milk products
- Avoid spicy and greasy foods
- Use over-the-counter Imodium AD (loperamide) unless your doctor or a nurse said not to use it. If you're not sure, call the clinic.

Call the clinic if you have an extra 4 bowel movements a day or diarrhea that lasts more than a day; if you took Imodium (loperamide) as directed.

See page 27 if you are receiving immunotherapy.

Fatigue

Fatigue from chemotherapy can feel like general weakness and low energy which can be mild, moderate, or severe. Many people feel fatigue during chemotherapy and can experience it for weeks or months after treatment is over. Radiation therapy given with chemotherapy can make fatigue more severe.

Tips for managing:

- Eat a well-balanced diet and drink 8 cups of fluids each day. Eat several small meals and snacks throughout the day. Keep foods on hand that don't take a lot of time to prepare.
- Take short 10-15 minute naps that won't interfere with sleeping at night.
- Exercise can help reduce fatigue. Try going for a 15-minute walk or riding an exercise bike. Plan to be active when you have the most energy.
- Choose the activities that are most important to you and let someone else help with the others. Let friends and family help with things like driving to appointments, cooking meals, doing laundry and buying groceries.
- Many people continue to work during treatment. If you don't feel well enough to work your full schedule, you may need to cut back on your hours or go on medical leave while you're getting treatment. The Resources section of this binder has a list of agencies and individuals that can help if you can't work.
- Talk to your doctor about your fatigue. There might other causes such as anemia that can be treated.

Call the clinic if you feel dizzy, lightheaded, or so tired you cannot perform
normal daily activities.

Hair Loss

Chemotherapy can cause some or all your hair to fall out. It can happen anywhere on the body, not just the head. For many people, this is one of the most difficult parts of getting chemotherapy.

Hair loss usually starts 2 to 3 weeks after the treatment begins and takes about a week to fall out. You may notice that your scalp aches first. Hair can come out a little at a time or in clumps. Hair usually grows back 2 to 3 months after chemotherapy is over. It will be very fine when it first starts growing in. Your new hair may come back straight or curly and can be a different color.

Ask your doctor if you are a candidate for a cold-cap system.

Tips for managing:

- Cut your hair short or shave your head. This might help you feel more in control over the hair loss and make it easier to manage.
- If you plan on getting a wig, choose it before hair loss starts so you can better match it to the color and style of your hair. You might ask the person who cuts your hair to style it for you.
- Some insurance companies pay for wigs. You need a prescription from your doctor for this. If it's not covered, you can deduct it as a medical expense on your income tax.
- Protect your scalp by wearing a hat or scarf when you are outside. Try to avoid very hot or very cold places. Always apply sunscreen to your scalp before you go outside.
- Talk about your feelings with friends or family. You can also join a support group. For more information, see the Resources section of this binder.

Hot Flashes

Some chemotherapy drugs affect hormone levels that can lead to hot flashes in both men and women.

Tips for managing:

- Eat a low-fat diet
- Drink something with ice during a hot flash
- Avoid alcohol, caffeine & nicotine
- Dress in layers. Wear loose clothing made of natural fibers such as cotton & linen or made of materials that pull sweat away from the skin. Avoid polyester & nylon
- Use cotton sheets and sleepwear
- Exercise regularly
- Keep room temperature constant and use fans to circulate the air
- Slowly inhale for a count of 7 then exhale for a count of 9 during a hot flash
- Try doing yoga, getting acupuncture or other complementary therapies
- Discuss medication options with your doctor

Infection

Chemotherapy affects your body's ability to make blood cells. This includes a type of white blood cell called a neutrophil. These cells help your body fight infections. Since you will have fewer of these cells, it is very important to try to avoid getting an infection.

You will have blood tests throughout your time on treatment to check your blood counts. If your neutrophil count is too low, your doctor may hold treatment until it returns to a higher level. A low neutrophil count is called neutropenia. With neutropenia your risk of getting an infection is much higher. Your doctor may give you a medication to raise your neutrophil count.

Tips for managing:

- Wash your hands often. Wash them before cooking and eating. Wash them after using the bathroom, blowing your nose, coughing, sneezing or touching animals. Use hand sanitizer if soap and water isn't available.
- Keep surfaces clean. Use sanitizing wipes on counters, doorknobs, keyboards, cell phone, carts at stores and other items you touch.
- Avoid people who are sick. If someone in your home is sick, have them wear a mask or put a mask on yourself. Stay away from children who've been given a live virus immunization such as for chicken pox or polio.
- Avoid crowds. Plan shopping or trips to movies, etc. when places tend to be less crowded.
- Be careful not to cut or nick yourself. Use an electric shaver instead of a razor. Wear thick gloves if working in a yard or garden. If you get a cut, wash it with soap and warm water and use an antiseptic and a clean bandage.
- Watch for redness, swelling, drainage or soreness around a port, catheters, drains, etc.
- Brush your teeth after meals and before you go to bed. Make a mouth rinse of $\frac{1}{4}$ teaspoon each of salt and baking soda mixed in 8 ounces of warm water and use several times a day.
- Do not clean litter boxes, bird cages or fish tanks. Don't pick up dog waste. If you don't have someone who can do this for you, wear a mask and wash your hands for a minimum of 30 seconds afterward. Wash your hands after touching pets and other animals.

Continued on next page

- Ask your doctor about getting a flu shot or other immunizations.
- Wash raw fruits and vegetables well before eating them. Don't leave leftovers sitting out. Put them in the refrigerator as soon as you're finished eating.
- Do not eat raw or undercooked fish, seafood, meat, chicken or eggs as they may have bacteria that can cause an infection. Avoid buffets.

Call the clinic:

If you have a temperature of 100.4 F or higher

If you have chills with or without fever

If you have any signs of an infection such as a cough, sore throat or pain/burning when you urinate.

Infertility

Some types of chemotherapy can cause a woman not to be able to get pregnant or a man not to be able to get a woman pregnant. This is called infertility.

In women, chemotherapy may damage the ovaries. It can also lower hormone levels which can lead to early menopause. In men, chemotherapy may damage sperm cells.

Infertility depends on the type of chemotherapy you get, your age and whether you have other health problems.

Pregnancy is possible while on treatment and must be avoided. If you or your partner is of childbearing age, use two methods of birth control anytime you have intercourse throughout the time you're getting chemotherapy. One method should be a barrier contraceptive such as a condom.

Tips for managing:

- Talk to your doctor before you start treatment if you want to have children in the future. Egg and sperm banking might be an option for you. You might be referred to a fertility specialist.

Call the clinic if you think you or your partner might be pregnant.

Kidney and Bladder Changes

Some chemotherapy drugs can damage cells in the kidneys and bladder. This can result in burning or pain with urinating, not being able to urinate or not being able to control the flow of urine from your bladder. You might have blood in your urine.

Some medications can cause urine to look dark yellow, orange or pink.

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

Your doctor will order blood work regularly to check your kidneys and might order urine tests if you have bladder symptoms.

Tips for managing:

- Fluids will help flush the chemotherapy out of your bladder and kidneys. Drink at least 8 cups of water or other clear fluid every day. Drink at least 12 cups if you were told that you are getting a drug that can damage the kidneys and bladder.
- Limit drinks that contain caffeine (such as black tea, coffee, and some cola products)

Call the clinic if:

You have a fever of 100.4 F or higher

You have chills with or without fever

You have problems urinating, painful urination, or blood in your urine.

Mouth and Throat Changes

Chemotherapy can affect the cells that line your mouth and throat. This can affect your lips, teeth, gums and the glands that make saliva.

You could experience dry mouth, taste changes (food might taste metallic, chalky or have no taste), infections of the mouth, increased sensitivity to hot or cold foods, and/or mouth sores.

If possible, see a dentist at least 2 weeks before starting chemotherapy to have any needed dental work done. If you can't do this, let your dentist know you are under treatment for cancer and are getting chemotherapy before having a cleaning or any type of dental work.

Tips for managing:

- Brush your teeth and tongue after each meal and at bedtime.
- Gently floss every day. Avoid areas that hurt or bleed.
- Make a mouth rinse of ¼ teaspoon each of salt and baking soda mixed in 8 ounces of warm water and use several times a day. Do not use mouthwash that contains alcohol.
- Keep your mouth moist by sipping water through the day and using sugar-free candy or gum.
- Check your mouth and tongue every day for changes such as redness or white patches.
- Use a soft toothbrush. Running hot water over the bristles will make it softer. If brushing is painful, try using cotton swabs or gauze wrapped around your finger to clean your teeth.
- Remove dentures when not eating.
- Soften foods with gravy or sauces. Eat foods that are cool or at room temperature. Use a blender to puree foods.
- Use water-based lip balm if your lips are dry.

Call the clinic if you have white patches in your mouth or if you are having trouble eating or drinking because of mouth soreness.

Nausea and Vomiting

Chemotherapy can cause nausea, vomiting, or both.

Nausea and vomiting can occur while you're getting chemotherapy, right after it's given, or hours to days later. Your doctor will give you anti-nausea medications before each chemotherapy treatment to help prevent this. These will be given through the IV, in pill form or both.

You will also get prescriptions for anti-nausea pills to take at home. Your doctor or a nurse will give you instructions on how to use the anti-nausea medications. It's important to follow these instructions to prevent or manage nausea and vomiting. If the medications you're given don't control symptoms, your doctor can give you something else.

Tips for managing:

- Try having bland, easy-to-digest foods that don't upset your stomach. Avoid greasy, fatty, fried foods.
- Give food and drinks time to warm up or cool down before eating. This can be easier on the stomach than hot or cold foods.
- Eat small meals and snacks instead of 2 or 3 large meals each day. Don't drink a lot of fluid just before or while eating and don't lie down right after eating.
- Avoid strong smells such as fish and onions and, if possible, try not to be around food while it's being cooked.
- Suck on sugar-free mints or tart candies. Ice chips might also be helpful.
- If you feel like you're going to vomit, take slow, deep breaths or try to get fresh air.
- Ask your doctor or nurse about acupuncture or other therapies which might help relieve nausea and vomiting.

Call the clinic if you took the medications you were given and still have nausea and/or vomiting.

Nervous System Changes

Some chemotherapy drugs can cause damage to your nervous system. Many nervous system problems get better within a year of finishing treatment, but some may be permanent.

Some common symptoms may include:

- Numbness, tingling, burning or weakness in your hands and feet
- Pain when walking
- Losing your balance or feeling clumsy or dizzy
- Trouble picking up objects or buttoning clothes
- Shaking or trembling
- Hearing loss
- Constipation or heartburn
- Fatigue
- Confusion, memory problems, depression

Tips for managing:

- Report any nervous system changes to your doctor or nurse.
- Be careful when handling scissors or knives or other sharp objects.
- Wear shoes with rubber soles, even indoors.
- Wear gloves while washing dishes or working in the garden
- Use a cane or walking device for balance.
- Tell your doctor if you're having memory problems, feel confused or are depressed.
- Discuss medication options with your doctor

Call the clinic if symptoms interfere with walking
or normal activities

Pain

Pain can be caused by cancer itself, by chemotherapy, or both. This can include burning, shooting pains in your hands and feet, mouth sores, headaches, muscle and bone pain, and stomach pains.

Your doctor can recommend over-the-counter pain medication or give you prescription pain medications as needed. Always tell your doctor or nurse if you're having pain.

Be specific. Where you feel pain? Is it sharp or dull or throbbing? Is it constant, or does it come and go? How long does it last? What makes it better or worse?

Tips for managing:

- Follow directions for taking pain medications.
- Don't skip doses of pain medication. Pain is harder to control if you wait until you are in pain to take something.
- Let your friends/family know about your pain so they can help you. Knowing about pain might help them understand why you might be acting differently.

Call the clinic if you're taking pain medications as directed and still have pain or if your pain changes. You might need different medications.

Pain medications can cause constipation. Call the clinic if you don't have a bowel movement for more than 2-3 days.

Sexual Changes

Some types of chemotherapy can cause sexual changes.

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

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

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

Tips for managing:

For WOMEN:

- Ask your doctor or nurse if it is okay for you to have sex during chemotherapy. Most women can have sex, but it is a good idea to ask.
- **If you or your partner is of childbearing age, use two methods of birth control anytime you have intercourse throughout the time you're getting chemotherapy. One method should be a barrier contraceptive such as a condom.**
- Talk with your doctor, nurse, or pharmacist about medications/products that relieve vaginal dryness or a vaginal cream or suppository to reduce the chance of infection.
- Wear cotton underwear. Do not wear tight pants or shorts.

For MEN:

- Ask your doctor or nurse if it is okay for you to have sex during chemotherapy. Most men can have sex, but it is a good idea to ask. Use a condom for the first week after each chemotherapy treatment since traces of chemotherapy may be in your semen.
- **If you or your partner is of childbearing age, use two methods of birth control anytime you have intercourse throughout the time you're getting chemotherapy. One method should be a barrier contraceptive such as a condom.**

Skin and Nail Changes

Chemotherapy can damage the cells in your skin and nails. Most changes are minor and do not require treatment. Many of them will get better once you have finished chemotherapy.

Skin changes may include:

- Itching, dryness, redness, rashes
- Sensitivity to the sun that can cause you to sunburn very quickly even if you have dark skin and don't usually get burned.
- Your veins may look darker where chemotherapy was given through an IV
- Nails can turn dark or yellow or become brittle and cracked. They may loosen and fall off, but will grow back in.

Tips for Managing:

- Take quick showers or sponge baths instead of long, hot baths / use lotion after bathing
- Use mild soaps and detergents
- Avoid direct sunlight (10:00 am – 4:00 pm) Use zinc oxide to block the sun rays or sunscreen with an SPF of 30 or higher. Use lip balm with an SPF of 30 or higher. Do not use tanning beds
- Wear light-colored pants, long-sleeve cotton shirts, and hats with wide brims
- Wear gloves when washing dishes, working in the garden, or cleaning the house

Call the clinic right away if:

You have sudden and severe itching, rashes, or hives, along
with wheezing or other trouble breathing

You have redness, pain, blisters or peeling in an area where
you were treated with radiation therapy

You have redness or pain around the vein/port where IV
chemotherapy was given

How Immunotherapy Works

Immunotherapies are used to activate cells of your immune system that attack cancer cells, but it might also harm healthy cells.

- Intravenous (IV) – through a vein in the hand or arm, a PICC line or a Port
- Oral – pill form

Immunotherapy can stimulate your immune system to work harder or smarter to attack cancer cells or by giving your immune system components, such as man-made immune system proteins. Some types of immunotherapy may also be called biologic therapy or biotherapy.

There are many immunotherapy drugs. Your doctor chose the specific drug(s) that will treat the type of cancer you have. You will be given separate information sheets about the drug(s) you will be getting. Since the information sheets are more specific, you need to follow what is on them if it is different than what is in this binder. If you are not sure what to do, please call the clinic and ask to speak to a nurse.

Your doctor may give you Immunotherapy alone or in combination with chemotherapy.

The main types of immunotherapy now being used to treat cancer include:

- **Monoclonal antibodies**: These are man-made versions of immune system proteins. Antibodies can be very useful in treating cancer because they can be designed to attack a very specific part of a cancer cell.
- **Immune checkpoint inhibitors**: These drugs basically take the ‘brakes’ off the immune system, which helps it recognize and attack cancer cells.
- **Cancer vaccines**: Vaccines are substances put into the body to start an immune response against certain diseases. We usually think of them as being given to healthy people to help prevent infections. But some vaccines can help prevent or treat cancer.
- **Other, non-specific immunotherapies**: These treatments boost the immune system in a general way, but this can still help the immune system attack cancer cells.

THE FOLLOWING 3 PAGES APPLY TO IMMUNOTHERAPY INDUCED SIDE EFFECTS

Diarrhea

Immunotherapy can cause a condition called colitis (Inflammation of the colon). Please call the office if diarrhea occurs for management advice. **Do not try to manage it with over the counter medications without checking with us first.** Severe colitis can lead to tears or holes in your intestine. Signs of colitis may include:

- Mucus or blood in your stool
- Dark, tarry, sticky stool
- Stomach pain or tenderness
- Diarrhea accompanied by fever

Hepatitis

Immunotherapy can lead to hepatitis (inflammation of the liver). Signs and symptoms of hepatitis may include:

- Yellowing of your skin or eyes
- Dark urine
- Nausea and vomiting
- Pain on the right side of your stomach
- Bleeding or bruising easily
- Decreased energy
- Loss of appetite

Pneumonitis

Immunotherapy can cause a serious lung condition called pneumonitis. Please call the office if you experience:

- New or worsening cough
- Chest pain
- Shortness of breath

Endocrine Insufficiencies

Immunotherapy can cause problems with your pituitary, adrenal, pancreas and thyroid glands. Signs and symptoms may include:

- Persistent or unusual headaches
- Unusual sluggishness
- Feeling cold all the time
- Weight gain or loss
- Changes in mood or behavior such as decreased sex drive, irritability, or forgetfulness
- Dizziness or fainting
- Hair loss
- Feeling cold
- Constipation
- Voice deeper
- Excessive thirst or excessive urination
- Severe abdominal pain or vomiting

Nephritis

Immunotherapy can cause inflammation of your kidneys and possibly kidney failure. Signs and symptoms may include:

- Decrease in the amount of urine
- Blood in your urine
- Swelling in your ankles
- Loss of appetite

Encephalitis

In rare cases, **immunotherapy** may cause inflammation of the brain called Encephalitis. Signs and symptoms may include:

- Headache
- Fever
- Tiredness or weakness
- Confusion
- Memory problems
- Sleepiness
- Hallucinations
- Seizures
- Stiff neck

PLEASE CALL OUR OFFICE AT 541-683-5001 IF YOU HAVE ANY OF THESE SYMPTOMS. SYMPTOMS CAN APPEAR UP TO A YEAR FOLLOWING THE CONCLUSION OF IMMUNOTHERAPY.

Nutrition

Foods and Drinks That Are High in Calories and Protein

- Cream soups
- Soups with lentils, dried peas, or beans (such as pinto, black, red, or kidney)
- Beef
- Butter or oil added to 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
- Custards (soft or baked)
- Frozen yogurt
- Ice cream
- Muffins
- Pudding
- Yogurt (plain or vanilla)
- Instant breakfast drinks
- Milkshakes
- Smoothies
- Whole milk
- Liquid meal replacements such as Boost® or Ensure®
- Powdered milk added to foods such as pudding, milkshakes, and scrambled eggs

High-Fiber Foods

- Bran muffins
- Bran or whole-grain cereals
- Brown or wild rice
- Cooked dried peas and beans (such as pinto, black, red, or kidney)
- Whole-wheat bread
- Whole-wheat pastas
- Dried fruit, such as apricots, dates, prunes, and raisins
- Fresh fruit, such as apples, blueberries, and grapes
- Raw or cooked vegetables, such as broccoli, corn, green beans, peas, and spinach
- Granola
- Nuts
- Popcorn
- Seeds, such as sunflower
- Trail mix

Low-Fiber Foods

- Chicken or turkey (skinless)
- Cooked refined cereals
- Cottage cheese
- Eggs
- Fish
- Noodles
- Potatoes (baked or mashed without the skin)
- White bread
- White rice
- Asparagus
- Bananas
- Canned fruit, such as peaches, pears, and applesauce
- Clear fruit juice
- Vegetable juice
- Angel food cake
- Gelatin
- Saltine crackers
- Sherbet or sorbet
- Yogurt (plain or vanilla)

Foods That Are Easy on a Sore Mouth

- Baby food
- Cooked refined cereals
- Cottage cheese
- Eggs (soft boiled or scrambled)
- Macaroni and cheese
- Mashed potatoes
- Pureed cooked foods
- Soups
- Custards
- Fruit (pureed)
- Gelatin
- Ice cream
- Milkshakes
- Puddings
- Smoothies
- Soft fruits (bananas and applesauce)
- Yogurt (plain or vanilla)

Foods and Drinks That Are Easy on the Stomach

- Clear broth, such as chicken, vegetable, or beef
- Cranberry or grape juice
- Sports drinks
- Tea
- Chicken (broiled or baked without its skin)
- Cream of rice
- Instant oatmeal
- Noodles
- Potatoes (boiled without skins)
- Pretzels
- Saltine crackers
- White rice
- White toast
- Angel food cake
- Canned fruit, such as applesauce, peaches, and pears
- Gelatin
- Popsicles
- Sherbet or sorbet
- Yogurt (plain or vanilla)

WVCI Resources

Nutrition Counseling Services

Good nutrition before, during and after treatment helps build strength, maintain energy, overcome side effects and make your cancer treatment more successful. Our dietitians are here to answer your questions and to help develop an individualized plan of nutrition, diet and physical activity based on the most current research and your specific diagnosis, health history and treatment plan. Call 541-683-5001 to make an appointment.

Oncology Social Work

We understand that a cancer diagnosis and treatment often creates new life challenges, affecting relationships, employment and finances. WVCI is committed to caring for the whole patient during and after cancer diagnosis. WVCI's social workers are clinical professionals with extensive cancer training and experience who will partner with you and your family during and after diagnosis and treatment. Call 541-683-5001 to make an appointment.

Patient Navigators

A WVCI patient navigator serves as a guide, helping patients anticipate, address and overcome any challenges that may arise during the cancer treatment process, as well as coordinate services to improve the quality of care you'll receive. If you need assistance navigating the healthcare system contact 541-683-5001 to connect with one of our patient navigators.

Financial Counselling

At your initial visit, please bring insurance cards for your primary and any supplementary coverage. You may meet with one of our financial counselors to review cost estimates for your treatment, assist with financial assistance, set up payment arrangements and answer any questions. We file your insurance claims for you, so it's crucial that you inform us of any insurance changes. Call 541-683-5001 for assistance.

Language Services

Willamette Valley Cancer Institute and Research Center provides free language services to people whose primary language is not English, such as qualified interpreters and information in other languages. If you need these services, contact us at 541-683-5001.

Clinical trials and research

Through our partnership with The US Oncology Network, Willamette Valley Cancer Institute and Research Center provides many investigational drugs through clinical trials, so that patients have access to experimental treatments otherwise unavailable. If you're interested in participating in a trial, talk to your oncologist and they can help determine if you're a candidate.

Advance Care Planning

Many of us have already prepared documentation, a Will, giving direction for dividing our property and assets after we die. Equally important, we should consider and talk with our loved ones about medical treatments we would or would not want if we were unable to direct our own healthcare. If you would like advance directives and assistance with care planning call our Oncology Support Services team at 541-683-5001.

Support groups

Whether recently diagnosed, undergoing treatment, or managing your disease, we're here to support you and your loved ones every step of the way. At Willamette Valley Cancer Institute all support groups are free. For more information please call (541) 683-5001 or for a current list of WVCI and community support groups visit our website at www.oregoncancer.com.

Retail Pharmacy

We have an excellent understanding of the medications you need to fight cancer. We also carry many other commonly prescribed medications. Delivering individualized, comprehensive pharmacy services is important to us. We work with your insurance company and help with copay assistance so that you can focus on what matters most – your treatment.

Hours of Operation: Monday through Friday, 8:30 a.m. – 6 p.m. Closed for lunch 1-1:30 p.m.

To contact us: Please call 541-681-4948

Location: Country Club Road location, 520 Country Club Road, Eugene, OR 97401.

Integrative care

During cancer treatment and beyond, we promote an integrative approach to health, incorporating mind and body wellness through complementary therapies, such as naturopathic medicine, acupuncture and survivorship support. For a list of our current community integrative care team visit www.oregoncancer.com or ask your oncology team.

Community Resources

Oregon Cancer Foundation

The Oregon Cancer Foundation empowers, strengthens and sustains those impacted by our community through education, support and financial assistance. Please contact the foundation at 541-632-3654 or visit www.oregoncancerfoundation.org for more information on their Survivorship Series and other programs.

American Cancer Society

The American Cancer Society focuses on funding and conducting research, sharing expert information, supporting patients, and spreading the word about prevention. For assistance call 800-227-2345.

Believe Boutique

Provides free wigs, hats, scarves and turbans to cancer patients. Items may vary depending on availability. Wigs are available by appointment only. Please call 541-632-3654 for additional information and to schedule an appointment. They are located at 2296 Oakmont Way in Eugene, OR.

Positive Community Kitchen

Positive Community Kitchen (PCK) provides direct support to people facing life threatening health challenges and supports long term prevention of disease. Every week volunteer teen and adult chefs & gardeners come together to prepare organic healing meals for community members fighting a life-threatening illness. Call 541-249-4942 for more information.

Reference:

National Cancer Institute. (2017). *Chemotherapy and You*. Retrieved from <https://www.cancer.gov/publications/patient-education/chemo-and-you>