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Hematology · Oncology · Internal Medicine

Your Chemotherapy Guide

What to Expect and How to Take Care of Yourself

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www.drswarup.info

Your Cancer Care Contacts (Keep This Handy)

Fill this out as soon as you receive it. Keep it somewhere easy to access, especially for nights, weekends, or when you are not feeling well.

If I Feel Sick or Have Urgent Symptoms

Urgent / After-Hours Number: ______________________

Nurse Line: ______________________

My Cancer Care Team

Oncologist / Doctor: ______________________

Care Coordinator / Nurse: ______________________

My Clinic Information

Clinic Name: ______________________

Clinic Phone Number: ______________________

Infusion Center (if different): ______________________

Lab / Bloodwork Location: ______________________

My Medications & Pharmacy

Preferred Pharmacy Name: ______________________

Pharmacy Phone Number: ______________________

My Upcoming Appointments

Date	Time	Location	Purpose (chemo, labs, visit)

FEVER OF 100.4°F (38°C) OR HIGHER DURING CHEMOTHERAPY

Call your clinic right away or go to the ER immediately. Do not wait.

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Section 1: What Is Chemotherapy and What to Expect

Starting chemotherapy is scary for most people. The more you understand what is happening in your body, the more prepared you will feel. This section gives you a simple picture of what chemotherapy is, how it works, and what to expect.

How does chemotherapy work?

Chemotherapy is medicine that fights cancer. It targets cells that grow and divide quickly. Cancer cells are the main target. But some healthy cells also grow quickly, including the cells in your mouth, stomach, and hair roots. Those can be affected too, which is what causes side effects.

Your healthy cells do recover. Most side effects improve or go away after treatment ends.

Why do I need more than one treatment?

Chemotherapy is given in rounds called cycles. A cycle has treatment days followed by rest days. The rest days give your healthy cells time to recover before the next round. Your doctor will tell you how many cycles your plan includes. Sticking to your schedule matters. Skipping treatments can make the medicine less effective.

How will I get my chemotherapy?

- **Through a vein (IV):** A small needle goes into your arm or into a port in your chest. Medicine drips slowly into your bloodstream. This can take 30 minutes to several hours.
- **By mouth (pill or liquid):** You take the medicine at home on a schedule your doctor gives you.
- **By injection (shot):** The medicine is given as a shot at the clinic.

Your care team will explain exactly how your treatment will be given.

What should I expect on treatment day?

- You will sit in a comfortable chair during your infusion.
- You may feel fine during the treatment itself. Side effects often start in the days after.
- Bring things to keep you comfortable: a blanket, snacks, headphones, a book.
- Do not plan to drive yourself home. Ask a family member or friend to take you.
- Plan to rest. Do not schedule anything important on treatment day.

What about the days right after treatment?

- Fatigue and nausea are most common in the first 1 to 3 days after treatment.
- Take your anti-nausea medicine on schedule, even if you feel okay.
- Drink plenty of water. Aim for at least 8 glasses a day, unless your doctor tells you otherwise.
- Rest when you need to. Your body is doing hard work.

Thinking about having children in the future? Read this now.

- Some chemotherapy medicines can affect your ability to have children.
- There are steps you can take to protect your fertility, but you must act before or early in treatment.
- Talk to your doctor about this as soon as possible, even if it feels like a small concern right now.
- If you are already in treatment, bring it up at your very next visit. It is not too late to ask.
- See Section 16 for more.

Key Point: Chemotherapy targets fast-growing cancer cells. Some healthy cells are also affected, which causes side effects. Most side effects are temporary and get better after treatment. Stay hydrated, take your medicines on schedule, and rest when you need to.

Section 2: When to Call the Clinic vs. When to Go to the ER

Some symptoms can be managed at home. Others cannot wait. Use this chart to know the difference.

HANDLE AT HOME	CALL THE CLINIC	GO TO THE ER RIGHT AWAY
• Mild tiredness • Mild nausea (with anti-nausea meds working) • Changes in taste or appetite • Expected hair loss • Mild skin dryness • 1 to 2 loose stools • Mild mouth soreness	• Nausea or vomiting lasting more than 24 hours • Difficulty keeping fluids down or vomiting so much that you can’t drink • More than 4 to 5 loose stools in a day • No bowel movement for 3 or more days • Mouth sores making it hard to eat or drink • Tingling or numbness in hands or feet • New or worsening pain • Unusual bruising or bleeding (not severe) • Questions about your medicines • Feeling very anxious or down	• Fever of 100.4°F (38°C) or higher. Do not wait. • Uncontrolled bleeding • Chest pain or trouble breathing • Unable to keep any fluids down for more than 24 hours • Feeling very confused • Fainting or passing out • Sudden severe pain • Signs of allergic reaction (hives, throat tightening, trouble breathing)

Key Point: When in doubt, call the clinic. Calling to ask a question is always the right move. For a fever of 100.4°F or higher, do not wait. Go to the ER.

Section 3: Getting Ready for Treatment Day

A little preparation goes a long way. Knowing what to do before, during, and after your treatment day makes the day much easier.

Before your treatment day

- Eat a light meal before you go. An empty stomach can make nausea worse.
- Drink plenty of water. Hydrate well the day before and the morning of treatment.
- Take any medicines your doctor told you to take before treatment, especially anti-nausea medicine.
- Arrange a ride home. You should not drive yourself after chemotherapy.
- Wear comfortable, loose clothing. Your care team needs easy access to your arm or port.
- Call the clinic ahead of time if you are feeling sick, have a fever, or are unsure whether to come in.

Your Treatment Day Bag: What to Bring

- A list of all medications and supplements you are taking
- Insurance card and photo ID
- Snacks that are easy on your stomach (crackers, applesauce, banana)
- A water bottle
- A blanket or sweater (infusion rooms can be cold)
- Headphones, a book, a tablet, or anything to pass the time
- A phone charger
- A support person, if allowed by the clinic

During your treatment

- Let your nurse know right away if you feel burning, pain, or swelling near your IV or port.
- Tell your nurse if you feel dizzy, have chest pain, trouble breathing, or notice a rash during the infusion.
- Sip water throughout your treatment.
- Feel free to ask the nurse any questions. They are there to help.

After your treatment

- Rest for the rest of the day. Do not push yourself.
- Keep drinking fluids. Aim for at least 8 glasses of water over the next 24 hours, unless your doctor tells you otherwise.
- Take your anti-nausea medicine on schedule, even if you feel okay.
- Watch for any of the warning signs listed in Section 2.
- Side effects often peak 1 to 3 days after treatment. That is normal.

Key Point: Prepare the day before: eat light, hydrate, pack your bag, and arrange a ride. On treatment day, your only job is to take care of yourself. After treatment, rest, drink fluids, and take your medicines on schedule.

Section 4: Nausea and Vomiting

Nausea is one of the most common side effects of chemotherapy. For most patients, it is manageable. Today's anti-nausea medicines work very well. The key is knowing how to use them.

Take your medicine before you feel sick

Anti-nausea medicines work best when taken on a schedule, not just when you feel bad. By the time you feel nauseated, the medicine has to work harder to catch up. Take it when your doctor says to, even if you feel fine. Your doctor will tell you exactly which medicine to use and when to take it, often before your infusion even starts. The schedule is set for a reason. If you miss a dose, call the clinic. Do not take two doses at the same time to catch up.

Nausea can come in waves. The first 1 to 3 days after treatment are usually the worst. Some patients also feel nauseous right before a treatment session, because smells or sights at the clinic remind them of treatment. Tell your care team if this happens. They can help.

Eating and drinking tips

- Eat small amounts throughout the day rather than three big meals.
- Choose bland, easy foods: crackers, toast, plain rice, bananas, applesauce.
- Avoid strong smells. Cold or room-temperature food tends to smell less.
- Avoid greasy, spicy, or very sweet foods when you feel nauseated.
- Ginger can help settle the stomach. Try ginger tea, ginger ale, or ginger candies.
- Sip fluids slowly throughout the day rather than drinking large amounts at once.
- Rinse your mouth before and after eating to clear any unpleasant taste.

Staying hydrated

You can get dehydrated (lose too much body water) very fast with vomiting. Dehydration makes nausea worse and can cause serious problems. If you are vomiting, focus on fluids first. Small sips of water, broth, sports drinks, or popsicles all count. If you cannot keep fluids down, contact your care team.

Call the Clinic If...	Go to the ER If...
• Vomiting lasts more than 24 hours • Your anti-nausea medicine is not helping • You are losing weight because you cannot eat • You feel very weak or dizzy along with nausea	• You cannot keep any fluids down for more than 24 hours • You feel severely dehydrated (very dry mouth, no urination, confusion) • There is blood in your vomit, or your vomit looks like coffee grounds

Key Point: Take your anti-nausea medicine on schedule, even when you feel okay. Eat small amounts often. Stay hydrated with small sips throughout the day. If you cannot keep fluids down for more than 24 hours, contact your care team or go to the ER.

Section 5: Fatigue

Fatigue during chemotherapy is the most common side effect of all. Nearly every patient experiences it. It is different from normal tiredness. You may feel exhausted even after a full night of sleep. Resting alone does not always make it go away.

Why does chemo cause so much fatigue?

Several things work together to drain your energy during treatment. The chemotherapy itself takes a toll on your body. Low blood counts (anemia) mean less oxygen reaching your muscles and brain. Poor sleep, stress, and changes in appetite all add to it. Some days will be harder than others.

Rest and stay gently active

Rest when you need to. This is not optional and it is not laziness. Your body needs that time.

At the same time, light movement can actually reduce fatigue over time. This may sound backward, but it is well supported by research. Short walks, gentle stretching, or light yoga can help. Do them on days you feel up to it. You do not have to push yourself. Even five to ten minutes of gentle movement counts.

- Listen to your body. Rest on bad days. Move gently on better days.
- Accept help with meals, errands, and household tasks.
- Prioritize what matters most and let other things wait.
- Plan your most important activities for the time of day when you tend to feel best.

Protecting your sleep

- Go to bed and wake up at the same time each day when possible.
- Keep your bedroom cool, dark, and quiet.
- Limit naps to 20 to 30 minutes and take them before mid-afternoon, so they do not get in the way of sleeping at night.
- Avoid screens for at least 30 minutes before bed.
- Talk to your care team if pain, anxiety, or medication side effects are keeping you awake. There are options. Also, if your fatigue feels like it has gotten much worse and is getting in the way of daily life, bring that up too. Sometimes the dose of your chemo can be adjusted, or your doctor may suggest something to help your energy levels.

Call the Clinic If...	Go to the ER If...
• Fatigue becomes suddenly much worse without a clear reason • You feel short of breath with very little activity • You feel very dizzy or faint when standing up • Fatigue is severe enough to prevent you from eating or drinking	• Severe shortness of breath at rest • Chest pain along with fatigue • Fatigue with a fever of 100.4°F or higher (see Section 6)

Key Point: Chemo fatigue is real and expected. Rest when you need to, move gently when you can, and ask for help. Your body is fighting. Give it the support it needs.

Section 6: Infection Risk and Fever

Chemotherapy lowers the number of white blood cells in your body. White blood cells are your main defense against infection. When the count is low, even minor infections can become serious very quickly. The medical word for a low white blood cell count is neutropenia.

You will not always feel sick or look sick when your white blood cell count is low. That is what makes this side effect especially important to understand.

How to lower your risk of infection

- **Wash your hands often:** Use soap and water for at least 20 seconds, especially before eating, after using the bathroom, and after being in public.
- **Avoid people who are sick:** Stay away from anyone with a cold, flu, or other illness.
- **Avoid large crowds:** In the days right after treatment, your white blood cell count drops the most. During this time, try to stay away from crowded spaces.
- **Practice food safety:** Avoid raw or undercooked meat, raw eggs, and unpasteurized dairy products. Cook food thoroughly.
- **Protect your skin:** Wash any cuts or scrapes right away. Avoid activities with a high risk of cuts or scrapes.
- **Skip the cat litter:** If you have a cat, ask someone else to change the litter box during treatment.
- **Keep your mouth clean:** Brush gently twice a day and rinse regularly. Mouth bacteria can cause infections.

The 100.4° rule

A fever during chemotherapy is a medical emergency.

A normal immune system can fight a small fever on its own. During chemotherapy, your body may not have the tools to do that. A fever that seems mild can turn into a life-threatening infection within hours.

If your temperature reaches 100.4°F (38°C) or higher:

- Call your clinic right away.
- If you cannot reach your clinic, go to the ER immediately.
- Do not take fever-reducing medicine (like Tylenol) before calling, unless your care team has told you to. It can mask the fever and make it harder for the medical team to figure out what is wrong.
- Do not wait to see if it comes down on its own.

Call the Clinic If...	Go to the ER If...
• Redness, warmth, or swelling at your IV site or port • A wound that looks infected (red, swollen, draining) • Chills without a fever	• Fever of 100.4°F (38°C) or higher • Shaking chills with or without a fever • Fever with confusion or extreme weakness

Call the Clinic If...	Go to the ER If...
- New cough, pain with urination, or other signs of infection	

Key Point: Wash your hands, avoid sick people, and know the 100.4 rule. A fever during chemotherapy is an emergency. Call your clinic right away or go to the ER. Do not wait and do not try to ride it out.

Section 7: Anemia and Low Red Blood Cells

Your blood has three main types of cells. Section 6 covered white blood cells (infection fighters). Section 8 covers platelets (clotting). This section covers red blood cells.

Red blood cells carry oxygen from your lungs to every organ in your body. When the count drops, your body gets less oxygen. You feel it.

Signs of anemia

- Feeling very tired, even more than usual
- Looking pale (check the inside of your lower eyelid, which may look less pink than normal)
- Feeling short of breath with activities that did not bother you before
- Feeling dizzy or lightheaded, especially when you stand up quickly
- Your heart beating faster than usual, even at rest
- Feeling cold even when the room is not cold

What helps

Your care team will monitor your blood counts throughout treatment. If your red blood cell count drops too low, they may recommend a blood transfusion. Sometimes your care team may suggest other options. They will explain the good and bad of each choice for you.

At home, eating iron-rich foods can support your blood health, though eating well alone may not be enough to fix anemia during chemo. Good sources of iron include lean red meat, beans, lentils, leafy greens, and fortified cereals. Eating these with foods high in vitamin C (like oranges or peppers) helps your body soak up the iron.

- Rest often and move at your own pace.
- Stand up slowly to avoid dizziness.
- Tell your care team about any new or worsening symptoms at each visit.

Call the Clinic If...	Go to the ER If...
• You feel noticeably more short of breath than before • You feel very dizzy or lightheaded when you stand • Your heart feels like it is racing at rest • You feel extremely pale or weak	• Severe shortness of breath that does not improve with rest • Chest pain • Fainting or loss of consciousness

Key Point: Anemia is common during chemotherapy. Tell your care team if you feel more tired, short of breath, dizzy, or pale. Your blood counts are being watched. Your care team will recommend the right treatment if your levels drop too low.

Section 8: Bleeding and Bruising

Chemotherapy can lower your platelet count. Platelets are tiny cells in your blood that help it clot when you get a cut or bump. When platelet levels are low, even small bumps can cause bruising, and cuts may take longer to stop bleeding.

How to protect yourself

- Use a soft-bristle toothbrush. Hard bristles can cause your gums to bleed.
- Use an electric razor instead of a blade razor when shaving.
- Be careful with knives, scissors, and other sharp objects.
- Avoid activities with a high risk of injury, such as contact sports.
- Blow your nose gently. Hard blowing can cause nosebleeds.
- Do not take aspirin or ibuprofen (like Advil or Motrin) unless your doctor specifically tells you to. These medicines thin the blood further. Ask your care team what is safe for pain relief.
- Always wear shoes or slippers, even indoors. Protecting your feet lowers the risk of cuts and scrapes.
- Do not use rectal thermometers, suppositories, or enemas unless your care team tells you it is okay. They can cause bleeding or infection when your platelets are low.

Signs to watch for

Contact your care team if you notice any of the following:

- Bruises that appear without any known bump or injury
- A cut or wound that bleeds for more than 10 minutes with steady pressure
- Nosebleeds that do not stop after 10 to 15 minutes of pinching the nose
- Blood in your urine (pink, red, or dark brown color)
- Blood in your stool (bright red or very dark, tarry stool)
- Tiny flat red or purple dots on your skin (your team may call them petechiae)
- Bleeding gums when brushing your teeth

Call the Clinic If...	Go to the ER If...
• Unusual bruising with no known cause • Bleeding gums • Nosebleed lasting more than 15 minutes • Blood in urine or stool • Tiny red or purple spots on your skin	• Bleeding you cannot control after 15 minutes of pressure • Sudden, severe headache (can signal bleeding inside the head) • Coughing or vomiting blood

Key Point: Be gentle with your body during treatment. Use a soft toothbrush, shave carefully, and avoid activities where you could get hurt. Tell your care team about any unusual bleeding or bruising right away.

Section 9: Eating, Appetite, and Nutrition

Many people find it hard to eat during chemotherapy. Your appetite may drop. Food may taste different than it used to or taste like nothing at all. Some patients notice a metallic or bitter taste. Others find that smells bother them more than before. All of this is normal, and it usually improves after treatment ends.

Eating well during treatment matters. Good nutrition helps your body recover between cycles, supports your energy, and can help you tolerate treatment better. The goal is getting enough calories and protein to keep your strength up.

Tips for eating when your appetite is low

- Eat by the clock, not by hunger. If you wait until you feel hungry, you may not eat enough.
- Aim for 5 to 6 small meals or snacks throughout the day rather than 3 large ones.
- Eat your largest meal when you tend to feel best, often in the morning.
- Have easy foods ready and within reach. When you do feel like eating, you want something available right away.
- Avoid cooking if strong smells bother you. Cold foods smell less. Ask someone else to cook when possible.

Foods that tend to go down easier

Everyone responds differently, but these foods are well tolerated by most patients:

- Crackers, toast, plain rice, and plain pasta
- Bananas, applesauce, canned peaches
- Chicken broth or mild soups
- Scrambled eggs or soft-boiled eggs
- Yogurt, cottage cheese, or mild cheese
- Nut butter on toast or crackers
- Protein shakes or nutrition drinks (like Ensure or Boost) when eating feels too hard

When you can barely eat

Some days, eating feels nearly impossible. On those days, focus on getting in whatever you can. Even a handful of crackers and a few sips of broth is better than nothing. Protein matters most. A small amount of peanut butter, a hard-boiled egg, or a protein drink can help you keep your muscle strength even when your appetite is very low. If you notice you have been losing weight steadily over the past month or two, let your care team know. Losing more than a few pounds without trying is a sign that you may need extra nutrition support, like a referral to a dietitian or a feeding plan your team can set up.

If you have a metallic taste, try using plastic utensils instead of metal ones. Cold or room-temperature foods often taste better than hot foods during chemotherapy.

A note about vitamins, supplements, and herbal products

Talk to your care team before taking any vitamins, supplements, or herbal products during chemotherapy. This includes things that seem harmless, such as vitamin C, fish oil, green tea extract, or herbal teas. Some supplements can change how your chemo works or affects your blood counts. High doses of vitamin C are one example. Even though it seems harmless, taking more than 1,000 mg a day can interfere with certain chemo medicines. When in doubt, ask before you take it. Your care team needs to know about everything you are taking.

Call the Clinic If...	Go to the ER If...
• You have not been able to eat or drink for more than 24 hours • You are losing weight rapidly • You feel very weak from not eating • You are unable to take your oral chemotherapy medicines because you cannot swallow or keep them down	• You cannot keep any fluids down for more than 24 hours and feel severely weak or confused

Key Point: Eat small amounts often, even when you do not feel hungry. Focus on getting enough protein. Bland, cold, or room-temperature foods are often easier to tolerate. Always check with your care team before taking supplements or herbal products. If eating feels impossible for more than a day, contact your care team.

Section 10: Mouth and Throat Sores

Some chemotherapy medicines affect the cells that line your mouth and throat. This can lead to sores, tenderness, or swelling inside your mouth. It can make eating, drinking, and swallowing painful. The medical word is mucositis, but most patients simply call them mouth sores.

Mouth sores usually appear 5 to 14 days after chemotherapy starts. They tend to heal on their own after treatment ends. Daily mouth care can reduce how bad they get.

Your daily mouth care routine

Start this routine from day one of treatment, even before sores develop. Prevention is much easier than treatment.

- Brush your teeth gently with a soft-bristle toothbrush after every meal and before bed.
- Rinse your mouth 4 to 6 times a day with a salt and baking soda solution: mix 1/4 teaspoon of salt and 1/4 teaspoon of baking soda in 1 cup of warm water. Swish and spit.
- Use a mouthwash without alcohol. Alcohol-based mouthwashes dry out the mouth and make sores worse.
- Keep your lips moist with an unscented lip balm or petroleum jelly.
- Drink water throughout the day to keep your mouth from drying out.
- If you wear dentures, clean them carefully and remove them at night.
- Your care team may ask you to suck on ice chips during your chemotherapy infusion. This is called oral cryotherapy. For certain medicines, the cold makes blood vessels in your mouth tighten so less of the medicine reaches the inside of your mouth. Ask your care team whether this applies to your chemotherapy.

What to eat when your mouth is sore

Choose foods that are soft, cool or room temperature, and mild in flavor.

- Yogurt, smoothies, and protein shakes
- Mashed potatoes, soft-cooked oatmeal, scrambled eggs
- Canned fruit, bananas, avocado
- Cool or lukewarm soups and broths
- Ice chips or frozen fruit pops can soothe sore tissue

Avoid foods that can irritate or worsen sores:

- Spicy foods
- Citrus fruits and juices (oranges, lemon, tomato)
- Crunchy or sharp foods (chips, crackers with hard edges, toast)
- Very hot foods or drinks
- Alcohol, including alcohol-based mouthwash
- Tobacco

Call the Clinic If...	Go to the ER If...
• Mouth sores make it too painful to eat or drink • You see white patches or a white coating inside your mouth (this can be a fungal infection called thrush) • Sores are bleeding • Mouth pain is getting worse despite your daily rinse routine • You have mouth sores along with a fever	• Mouth sores with a fever of 100.4°F or higher • You cannot swallow at all and cannot take your medicines

Key Point: Start daily mouth care the day treatment begins. Brush gently, rinse often with the salt and baking soda solution, and avoid anything that stings. If sores make it too hard to eat or drink, call your care team.

Section 11: Hair Loss

Some chemotherapy medicines cause hair loss. Not all do. Your care team can tell you whether the medicines in your treatment plan are likely to affect your hair. If hair loss does happen, it usually starts 2 to 4 weeks after your first treatment. It can happen gradually or quickly over a few days.

Hair loss from chemotherapy is often temporary. For most patients, hair begins to grow back within a few months after treatment ends. It may come back a slightly different texture or color at first. For a small number of patients, hair grows back more slowly or not all of it comes back. This is more common with some medicines than others. If this concerns you, your care team can discuss what to expect based on your specific treatment.

Protecting your scalp

- Use a gentle, fragrance-free shampoo and a soft-bristle brush or wide-tooth comb.
- Sleep on a silk or satin pillowcase to reduce friction and scalp irritation.
- Protect your scalp from the sun with a hat, scarf, or sunscreen. Your scalp is not used to direct sun exposure.
- Keep your scalp moisturized with a gentle, unscented lotion if it feels dry or itchy.
- Avoid heat styling, tight hairstyles, or chemical treatments on any remaining hair.

Head coverings and options

Many patients choose hats, scarves, turbans, or wigs during treatment. There is no right answer. Wear whatever makes you feel most comfortable. If you are interested in a wig, talk to your care team early. Some programs offer assistance with costs. Medical wigs may be covered by insurance when prescribed as a cranial prosthesis (this is the medical term insurance often needs to cover a wig).

Your care team may also mention scalp cooling, a technique that uses a cold cap during infusion to reduce hair loss with certain chemotherapy medicines. Ask your care team whether this is an option for your treatment. Cold caps tend to work best for patients on certain types of chemo. They do not work as well for all regimens. If your hair loss is coming on fast or is more complete than you expected, reach out about a wig program sooner rather than later. Some programs have waiting lists.

Call your clinic if you notice:

- Scalp pain, tenderness, or sores that are not healing
- Redness, swelling, or signs of infection on your scalp
- Hair loss that is much faster or more severe than your care team led you to expect

Key Point: Hair loss from chemotherapy is often temporary, and most patients see regrowth in the months after treatment ends. Protect your scalp from sun and irritation and ask your care team early about wig programs or scalp cooling if either interest you.

Section 12: Numbness and Tingling in Hands and Feet

Some chemotherapy medicines affect the nerves in your hands and feet. This is called peripheral neuropathy. It can cause tingling, numbness, burning, or sharp pain. Some patients also notice that they are more sensitive to cold temperatures, or that their grip feels weaker than usual.

Neuropathy most often starts in the tips of the fingers and toes and can move toward the hands and feet over time. It may develop during treatment or in the weeks after treatment ends. In many patients it improves after treatment is finished, though the timeline varies.

Staying safe when your hands and feet are affected

Numbness in your hands and feet raises the risk of falls, burns, and injuries you may not feel right away. Take these steps to protect yourself:

- Wear well-fitting, non-slip shoes or slippers at all times. Never walk barefoot, even at home.
- Check your feet every day for cuts, blisters, or sores that you may not feel. Use a mirror if needed.
- Test water temperature with your elbow or a thermometer before bathing or washing dishes. Numb hands may not feel hot water, so you can burn yourself without knowing.
- Hold handrails when using stairs. Sit rather than stand when possible, during tasks that require balance.
- Use oven mitts, potholders, and insulated gloves when handling anything hot or very cold.
- Be extra careful with sharp objects such as knives, scissors, and needles.

Easing the discomfort

- Keep your hands and feet warm. Gloves and thick socks can help with cold sensitivity.
- Gentle massage of the hands and feet may help with circulation and comfort.
- Tell your care team at every visit how your symptoms are changing. Neuropathy is one of the side effects your team watches closely to adjust your treatment if needed.
- Do not start any new supplements, creams, or over-the-counter treatments for neuropathy without checking with your care team first.

Call the Clinic If...	**Go to the ER If...**
• Tingling or numbness that is spreading or getting significantly worse • Weakness in your hands or feet that is affecting daily tasks • You had a fall or near-fall because of balance or numbness • You notice a cut, sore, or wound on your foot that you did not feel	• A fall that causes injury • Sudden severe pain, weakness, or loss of function in your hands or feet

Key Point: Neuropathy can affect your balance and your ability to feel heat and injury. Protect your hands and feet, check your feet daily, and tell your care team at every visit how your symptoms are changing. Never start new treatments for neuropathy without checking first.

Section 13: Skin and Nail Changes

Chemotherapy affects fast-growing cells throughout your body, including the cells in your skin and nails. You may notice dryness, peeling, redness, darkening of the skin, or your skin may burn more easily in the sun. Your nails may become brittle, develop ridges, or darken. Some medicines cause a rash or skin irritation, particularly around the hands and feet.

Most skin and nail changes are temporary and improve after treatment ends. Good daily habits can reduce discomfort and prevent complications.

Caring for your skin

- Moisturize every day. Apply a thick, fragrance-free cream or ointment (like Eucerin, CeraVe, or Aquaphor) while your skin is still slightly damp after bathing. This locks in moisture.
- Use mild, fragrance-free soap. Avoid antibacterial soaps and anything with alcohol or strong scents.
- Use warm water, not hot. Hot water strips moisture from the skin.
- Pat your skin dry gently with a soft towel. Do not rub.
- Protect your skin from the sun. Chemotherapy makes skin more sensitive to UV damage. Use sunscreen with SPF 30 or higher every day, including on cloudy days, and wear a hat and long sleeves when outdoors. With some chemo medicines, your skin can burn very easily. You may need even stronger sun protection. Ask your care team.
- Avoid shaving irritated or rash-covered areas.

Hand-foot syndrome

Some chemotherapy medicines cause a specific reaction on the palms of your hands and the soles of your feet. It is called hand-foot syndrome. Signs include redness, swelling, tenderness, tingling, peeling, or blistering on your palms or soles.

Tell your care team right away if you notice these symptoms. Early treatment can prevent them from getting worse. In the meantime:

- Avoid friction, heat, and prolonged pressure on your hands and feet.
- Do not wear tight shoes, use tools that require gripping hard for long periods, or walk on hard surfaces without cushioned footwear.
- Apply thick, fragrance-free moisturizer to your palms and soles multiple times a day, especially after bathing.
- Avoid hot water on your hands and feet.

Caring for your nails

- Keep nails short and filed smooth to prevent catching or tearing.
- Wear gloves when doing dishes, gardening, or cleaning to protect nails from moisture and chemicals.
- Avoid acrylic or gel nails during treatment. They can trap bacteria under the nail and cause infections.
- Apply a fragrance-free cuticle oil or cream to keep the nail bed moisturized.
- Tell your care team if you notice any nail lifting, pain, or signs of infection under the nail.

Call the Clinic If...	Go to the ER If...
• Hand-foot syndrome symptoms (redness, swelling, peeling, tenderness on palms or soles) • A rash that is spreading or very painful • A nail that is separating from the nail bed • Any signs of skin infection (redness, warmth, swelling, pus)	• A widespread or rapidly spreading rash, especially with fever or blisters on the skin • Blistering or peeling of the skin over large areas of your body • A rash involving your eyes, mouth, or genitals

Key Point: Moisturize daily, use gentle products, and protect your skin from the sun. Tell your care team right away if you notice redness, peeling, or tenderness on your palms or soles. Most skin and nail changes are temporary, but some need early treatment to prevent them from getting worse.

Section 14: Memory and Concentration

Many patients notice changes in their thinking during and after chemotherapy. You may find it harder to remember words or names, have trouble focusing, feel mentally foggy, or feel like your thinking is slower than usual. This is a real side effect, and it has a name: chemotherapy-related cognitive changes. Many patients simply call it chemo brain.

Chemo brain is frustrating. For many patients it improves over the months to years after treatment ends. This is not dementia. It does not get worse and worse over time. However, some patients notice effects that linger longer. If this happens to you, your care team can connect you with additional support.

Strategies that help

- Write things down. Keep a notebook, use your phone, or put a small pad by the door for reminders. Do not rely on memory for important appointments or instructions.
- Use routines. When the same tasks happen at the same time each day, they require less mental effort.
- Do one thing at a time. Multitasking is harder when your brain is under stress. Focus on one task, complete it, then move on.
- Rest when you feel mentally tired. Pushing through cognitive fatigue often makes it worse.
- Limit alcohol. Alcohol worsens brain fog and interferes with sleep, both of which make cognitive symptoms harder to manage.
- Tell people around you what you are experiencing. Asking a friend or family member to help you remember things is not weakness.
- Light physical activity, on days you feel up to it, supports brain health. Even a short walk can help with mental clarity.
- Protect your sleep. Poor sleep makes cognitive symptoms significantly worse.

Be patient with yourself

Chemo brain can be discouraging, especially if you are used to being sharp and organized. Give yourself grace during this time. Struggling to find words or forgetting where you put something does not mean something is seriously wrong. It means your body is going through an enormous amount.

If chemo brain is significantly affecting your work or daily life, ask your care team. They can refer you to a specialist who helps with this. Also keep in mind that anxiety and depression can make brain fog feel much worse. If you are struggling emotionally too, see Section 15.

Call your clinic if:

- You notice a sudden change in your thinking or memory that feels different from the usual fogginess, including confusion that came on quickly, trouble finding words, or not knowing where you are
- You become confused or disoriented in a way that is new or alarming
- You have difficulty speaking or understanding speech
- A family member notices a significant change in your mental status

Key Point: Chemo brain is real, common, and not a sign of lasting brain damage. Write things down, use routines, limit alcohol, rest when mentally tired, and be patient with yourself. Report sudden or unusual changes in your thinking to your care team.

Section 15: Your Emotional Health

Going through chemotherapy is hard on your mind as well as your body. Feeling scared, anxious, sad, angry, or overwhelmed is completely normal. These feelings do not mean you are weak or that you are not handling things well. They mean you are human, and that what you are facing is genuinely difficult.

Emotional health during cancer treatment deserves the same attention as your physical health. If you don’t get help for anxiety or depression, it can hurt your sleep, your appetite, how well you handle treatment, and how you feel day to day.

Things that can help

- Talk to someone. A trusted friend, family member, or spiritual leader can provide real comfort. You do not have to go through this alone.
- Ask your care team about support resources. Most cancer treatment programs have oncology social workers, counselors, or patient navigators available at no extra cost. You do not have to seek this out on your own.
- Consider a support group. Connecting with other patients who are going through similar experiences can reduce isolation and provide practical tips. Ask your team about in-person or online options.
- Keep a routine where you can. Structure provides a sense of normalcy and control when much else feels uncertain.
- Gentle activity, time outdoors, and things that have brought you joy in the past (music, reading, cooking, prayer) still matter.
- Limit the amount of time you spend researching your diagnosis online. Not everything you read will apply to you, and a great deal of what you find will increase your anxiety without improving your care.

When to seek more support

There is a difference between the normal emotional ups and downs of cancer treatment and something that needs professional attention. Reach out to your care team if:

- You feel hopeless most of the time or have no interest in things you used to care about
- Anxiety is significantly affecting your sleep, appetite, or ability to function
- You are using alcohol or other substances to cope
- You are having thoughts of harming yourself

Your care team will not judge you for any of these. Asking for help is a sign of good judgment. If what you are feeling has gone on for more than two weeks, a referral to a therapist, psychologist, or psychiatrist may be the right next step. Some patients also find it helpful to keep a simple mood journal or use a mental health app to track how they are feeling between visits. It gives you something concrete to share with your care team.

If you are in crisis or having thoughts of harming yourself:

- Call or text 988 (Suicide and Crisis Lifeline) for immediate help, 24 hours a day, 7 days a week.
- You do not have to wait until you can reach your care team. Help is available right now.

Key Point: Your emotional health matters as much as your physical health during treatment. Talk to someone, use the support resources your cancer center offers, and tell your care team if anxiety or depression is significantly affecting your daily life. If you are in crisis, call or text 988.

Section 16: Sexual Health and Fertility

Chemotherapy can affect your sexual health and your ability to have children in the future. These topics can feel awkward to bring up, but your care team has these conversations regularly. Please ask.

Fertility

Some chemotherapy medicines can affect fertility in both men and women, temporarily or permanently. The risk depends on the specific medicines, the doses, your age, and other factors. If having children in the future is important to you, talk to your care team before treatment starts. There are options like egg freezing, embryo freezing, and sperm banking. To work, these must be set up before chemo starts.

Even during treatment, do not think chemo will keep you from getting pregnant. Some patients remain fertile during treatment. Pregnancy during chemotherapy is very dangerous for a developing baby. Use a reliable form of birth control throughout your treatment. Your care team will help you choose a method that is safe for your specific type of cancer and treatment plan.

Sexual health during treatment

It is common for sexual desire, comfort, and function to change during chemotherapy. Fatigue, changes in body image, changes in hormones, and emotional stress all play a role. This is normal and does not mean something is permanently wrong.

- Vaginal dryness and discomfort during sex are common in women. A water-based lubricant can help. Ask your care team about safe options.
- Men may experience changes in libido, erection, or ejaculation. Talk to your care team if this is affecting your quality of life.
- Chemotherapy medicines can be present in body fluids for up to 48 to 72 hours after treatment. During this window, use barrier protection (condoms) during sexual activity to protect your partner from exposure.
- Your care team may advise you to avoid sexual activity during certain points in your treatment cycle when your blood counts are very low. This is to reduce the risk of infection and bleeding. Ask your team when this applies to you.
- Open communication with your partner matters. You do not have to go through these changes without support.

Talk to your care team if:

- Fertility preservation is important to you before starting treatment
- You need guidance on birth control that is safe during chemotherapy
- You experience pain, unusual discharge, or signs of infection related to sexual health
- Changes in sexual function or intimacy are affecting your relationship or quality of life

Key Point: Talk to your care team about fertility before treatment begins if this matters to you. Use reliable birth control throughout treatment and use barrier protection for 48 to 72 hours after each chemotherapy dose. Many sexual health changes are temporary, and your care team can help.

Section 17: Your Port or IV Access

Many patients receiving chemotherapy have a port (also called a central venous port or port-a-cath), placed under the skin in the chest. A port is a small device connected to a catheter that goes directly into a large vein. It allows the chemotherapy team to give medicine, take blood, and give fluids without repeatedly placing IV needles in your arm.

Some patients receive treatment through a PICC line (a thin tube placed in a vein in the upper arm) or a traditional IV instead. The care instructions below apply to all types of central access. Ask your care team which type of access you have and any specific instructions for your device.

Caring for your port or line at home

- Keep the site clean and dry. Follow your care team’s specific instructions for dressing changes.
- Do not submerge the port or line site in water. No baths, swimming, or hot tubs unless your care team has cleared this with you.
- Showers are generally fine if the site is covered with a waterproof dressing as directed.
- Avoid tight clothing, straps, or bags that press directly on the port site.
- Do not let anyone draw blood or give medicines through your port except trained medical staff.
- If you have a PICC line, protect the arm it is in from strenuous activity or heavy lifting unless your care team has told you otherwise.
- If your port is not being used during a gap in treatment, your care team will schedule regular flushes to keep it working properly. Do not skip these appointments. A flushing appointment is a quick visit where a nurse cleans out the port with a small amount of fluid, sometimes heparin, so it stays open and works when you need it. If your port has not been used in 30 days or more, a flush is especially important. Your oncology nurse sets this schedule. Do not skip it.

Signs of a problem

A port or central line is a direct route to a major vein. An infection or clot at this site can become serious very quickly. Know the warning signs.

Call the Clinic If...	Go to the ER If...
• Redness, warmth, or swelling around the port or line site • The dressing is wet, loose, or soiled • Pain at the port site that is new or worsening • New swelling, pain, or discoloration of the arm where your PICC line is placed • The port does not flush or feels different than usual when accessed by your nurse	• Fever of 100.4°F (38°C) or higher when you have a port or central line in place. This is an emergency. • Sudden chest pain or shortness of breath after a port access • Sudden or severe swelling of the arm or neck near the line site

Key Point: Keep your port or line site clean and dry. Never let it be submerged. Check it every day for redness, swelling, or pain. Do not skip flushing appointments during breaks in treatment. A fever when you have a central line in place is a medical emergency.

Section 18: Managing Your Medicines at Home

Some patients take chemotherapy in pill or capsule form at home. Others take supportive medicines at home alongside IV chemotherapy given at the clinic. Either way, managing medicines at home is an important part of your treatment.

Oral chemotherapy: treat it like IV chemo

Chemotherapy taken by mouth is just as powerful as chemotherapy given through an IV. It has the same risks, the same side effects, and needs the same care. Do not treat it as just a pill.

- Take your oral chemotherapy exactly as prescribed. Do not skip doses, split tablets, or change the timing without calling your care team first.
- If you miss a dose, call your care team for instructions. Do not take two doses to make up for one you missed. This is not safe with chemotherapy.
- Store your medicine as directed, usually in a cool, dry place away from sunlight. Some medicines require refrigeration. Ask your pharmacist.
- Some oral chemotherapy tablets must not be crushed or split. Swallow them whole unless your care team tells you otherwise.

Safe handling at home

Chemotherapy medicines are powerful and can affect other people if they are not handled carefully.

- Wear disposable gloves when handling your chemotherapy pills. Wash your hands thoroughly before and after, even if you wore gloves. Chemotherapy can be absorbed through skin contact.
- For 48 to 72 hours after receiving chemotherapy (IV or oral), small amounts of the medicine may be present in your urine, stool, and vomit. Flush the toilet twice with the lid closed. Family members, especially those who are pregnant, should avoid contact with your bodily waste during this period.
- Store chemotherapy medicines in their original childproof containers. Keep them out of reach of children and pets.
- Never share your chemotherapy with anyone else.
- Throw away leftover or expired chemo at a drug take-back program. Do not flush pills down the sink or toilet unless your pharmacist specifically tells you to.

All your medicines matter

- Tell your oncology care team about every medicine you take, including prescription drugs, over-the-counter medicines, vitamins, supplements, and herbal products. Some can interact with chemotherapy or affect your blood counts.
- Use the same pharmacy for all your prescriptions when possible. Your pharmacist is a partner in catching interactions.
- Do not receive any live vaccines (such as the nasal spray flu vaccine or the MMR vaccine) during chemotherapy. Other vaccines, like the flu shot or COVID-19 vaccine, may be safe and even recommended during treatment. Ask your care team which vaccines are right for you.

Call the Clinic If...	Go to the ER If...
• You are unsure whether you took your dose or accidentally took an extra one • You vomited shortly after taking an oral chemotherapy dose and are unsure if it counts • You are having side effects that are making it hard to take your medicines • You cannot afford your medicines or access your pharmacy	• You accidentally took a much larger dose than prescribed • Severe side effects appear quickly after taking an oral chemotherapy dose (difficulty breathing, severe chest pain, sudden confusion)

Key Point: Take your medicines exactly as prescribed. Never double up on a missed dose. Wear gloves when handling chemotherapy pills and wash your hands after. Tell your care team about everything you are taking. Ask before getting any vaccine during treatment.

Section 19: Between Treatments

Chemotherapy is given in cycles. Each cycle has a treatment day or days, followed by a rest period. The rest period is not downtime for your care team. It is a planned, necessary part of treatment that gives your body time to recover before the next cycle.

Knowing what to expect between treatments helps you prepare and helps you spot problems early.

Lab work and check-ins

You will likely have blood draws between treatment cycles. These monitor your blood counts, kidney function, liver function, and other markers. Your care team uses these results to decide whether you are ready for your next treatment cycle. Do not skip lab appointments, even if you feel fine.

If your blood counts are too low, your next treatment may be delayed by a week or adjusted in dose. This is not a setback. It is your care team protecting you.

The low point of your cycle

White blood cell counts typically hit their lowest point 7 to 14 days after chemotherapy for most medicines. The exact timing depends on which medicines you are on. For some, it happens sooner. For others, later. Your team will tell you when to expect yours, so you can take extra precautions. This window is when the guidance in Section 6 matters most.

Planning your days

- Plan lighter activities around your treatment days and the days immediately following. Give yourself permission to rest.
- As you move farther from your treatment day, you will likely start to feel better. Use that window to get some nutrition, gentle movement, and social connection.
- Know your next appointment date. Write it down. Have someone with you who also knows it.
- Keep a small symptom log. Note how you feel each day, what you eat, any new symptoms, and what helped or did not help. This information is useful at your clinic visits.

Work, travel, and daily life

Whether you can work during treatment depends on your type of work, your treatment schedule, and how you feel. Some patients work through most of their treatment. Others need to cut back a lot. Talk to your care team honestly about your situation. They can help you plan and can provide documentation for your employer if needed.

Travel during treatment requires planning. Always carry a copy of your treatment information, your care team’s contact number, and a list of your medications. If you will be far from your treatment center, find out ahead of time which hospital near you treats cancer patients. Talk to your care team before any trip that takes you far from home. One more thing: if you notice a sudden drop in appetite, fast weight loss, or new fatigue that shows up outside your normal recovery window, call your clinic. Do not wait for your next scheduled visit. It may be nothing, but your team needs to know.

Your emergency plan

Before your next treatment cycle, make sure you have a clear answer to each of these:

- Who drives you to the clinic or ER at any hour if needed?
- Do you have your clinic's after-hours phone number stored in your phone?
- Does someone close to you know the 100.4-degree rule and what to do?
- Do you know which ER to go to if your clinic cannot be reached?

Key Point: Rest is planned into your treatment cycle. Attend all lab appointments, know when your lowest point in the cycle is coming, and have an emergency plan before your next treatment starts.

My Notes