



About cytotoxic chemotherapy



ABOUT CYTOTOXIC CHEMOTHERAPY

How does chemotherapy work?

Cancer cells are cells that are making more of themselves very quickly. They do not know when to stop making more of themselves, like healthy cells do. Cancer cells can also hide from your immune system.

So the immune system cannot kill them like it kills most germs.



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How does chemotherapy work?

Chemotherapy that kills cells is called “cytotoxic chemotherapy.”

- Stops all fast-growing cells from making more of themselves
- This type of chemotherapy stops all fast-growing cells – even healthy cells



ABOUT CYTOTOXIC CHEMOTHERAPY

How chemotherapy affects your bone marrow

Your bone marrow is the soft material at the center of your bones. Your body makes blood cells here. Chemotherapy affects your bone marrow in several ways.



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How chemotherapy affects your bone marrow

Fewer white blood cells (neutropenia)

Your body is less able to fight infections.

What can I do?

- Wash your hands, wash your hands, wash your hands!
- Avoid people with cold or flu symptoms



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How chemotherapy affects your bone marrow

- Call the clinic if you have signs of infection:
 - Temperature of 100.4 (F) or more (have a thermometer at home)
 - Redness around your IV line or fluid coming from the area
 - A cough that does not go away
 - A burning feeling when you urinate
 - Sores on your skin



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How chemotherapy affects your bone marrow

Fewer red blood cells (anemia)

You may feel or have:

- Dizzy or lightheaded sensation
- Tiredness
- Difficulty breathing or staying warm
- Chest pain



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How chemotherapy affects your bone marrow

What can I do?

Call the clinic if you have any of the side effects listed. You might need a blood transfusion if you have severe anemia. This means we give you some extra blood through an IV.



ABOUT CYTOTOXIC CHEMOTHERAPY

How chemotherapy affects your bone marrow

Fewer platelets (thrombocytopenia)

This lowers your blood's ability to form clots. Clots help you stop bleeding. You might feel or have:

- Bruises that happen easily
- Bleeding you cannot see a reason for
- Vomit that looks like coffee grounds
- Small red spots on your skin



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Possible side effects of chemotherapy

What can I do?

Avoid instances where you may injure yourself. Call the clinic if you notice any of the side effects mentioned on the last slide.



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Possible side effects of chemotherapy

Hair loss (alopecia)

- You can lose body hair from head to toe
- Hair loss starts about 2 weeks after you start chemo. It can grow back between 3 to 5 months after your treatment ends, or after you stop chemo
- Your new hair may be a different color or texture



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

What can I do?

- Protect your head from the sun, cold and harsh products
- Consider shaving your head as you start to lose your hair, or getting a wig
- Contact our social workers who can help you with resources that provide free hats and wigs



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

Irritation of your entire digestive system (mucositis)

Chemotherapy can irritate the soft lining of your digestive system. It starts with your lips and ends with your rectum.



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Possible side effects of chemotherapy

What can I do?

- Watch for signs of irritation and tell your health care team
- Take good care of your mouth and teeth
- Add water or sauce to foods if your mouth is dry
- Rinse your mouth with salt water or a baking soda rinse



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

Nausea and vomiting

What can I do?

- Take your anti-nausea medications
- Eat small meals more often, instead of two or three big meals a day
- Avoid fried foods, spicy foods, foods with strong smells or with a lot of salt
- Try foods with ginger in them
- Drink plenty of fluids
- Talk with your team about acupuncture



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Possible side effects of chemotherapy

Constipation

Medication can cause constipation. Not having enough fluid in your system (dehydration) can also make you constipated.



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

What can I do?

Preventing constipation before it starts is best. You can:

- Drink at least 8 to 10 glasses of fluid each day. Exercise, get more fiber in your diet and take medications called “stool softeners.” These make poop (stool) softer, so it is easier to have a bowel movement.
- Do not use enemas or suppositories. Talk to your health care team if the tips here do not help.



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

Diarrhea

What can I do?

- Take your medications the way your health care team told you.
- Count how many times you have diarrhea. Call the clinic if it happens more than 3 times in 24 hours.
- Keep your rectum and rear-end clean. Use baby wipes instead of toilet paper. Do not flush baby wipes, even if they say “flushable” on the package.



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

Diarrhea

What can I do? (continued)

- Drink plenty of fluids
- Avoid alcohol and drinks with caffeine
- Try acupuncture

If you are getting immunotherapy, call us right away if you have diarrhea.



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Possible side effects of chemotherapy

Skin reactions

- Dry skin
- Redness
- A rash that looks like acne
- You may be more likely to get a sunburn
- Changes to the palms of your hands and bottoms of your feet



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Possible side effects of chemotherapy

What can I do?

- Use moisturizer. Talk with the radiation clinic staff first if you are getting radiation treatment
- Wear sunscreen
- Avoid soap and lotion with alcohol or perfume in them

Tell us about any skin problems you are having.



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Possible side effects of chemotherapy

Nerve problems (neuropathy)

You may have unusual feelings in your hands, feet or both.

These may include:

- Tingling, burning, numbness or pain
- Loss of feeling
- Being more sensitive to cold



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Possible side effects of chemotherapy

What can I do?

- Tell your health care team as soon as you notice the problem
- Be careful not to hurt yourself, such as by bumping hands or feet
 - Wear closed shoes or slippers that cover your foot completely. Please do not walk around barefoot, even at home
 - Be careful picking up hot, cold or sharp objects
- Talk to your care team about acupuncture



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

Tiredness (fatigue)

This is the most common chemotherapy side effect. Rest does not always help. It can affect your mood, emotions and ability to do regular activities or concentrate.



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Possible side effects of chemotherapy

What can I do?

- Include both activities and exercise, and rest time in your day
- Do the most important things and let the rest go
- Ask others to help with some things you normally do
- Eat well
- Drink plenty of fluids
- Talk to your care team about acupuncture



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Possible side effects of chemotherapy

Problems with memory and thinking (“chemo brain”)

Chemotherapy can cause trouble concentrating, remembering things or doing more than one thing at a time. Doctors do not yet know what causes it. Many people call this side effect “chemo brain.”



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Possible side effects of chemotherapy

What can I do?

- Plan your time in detail. Use a planner you can write in, the calendar in your phone or another tool
- Get physical exercise and keep your brain active, such as by doing puzzles or reading
- Get plenty of rest and sleep
- Talk with your care team about acupuncture



ABOUT CYTOTOXIC CHEMOTHERAPY

Possible side effects of chemotherapy

Talk with your health care team about chemo brain.
They may recommend having some tests to check your
memory and thinking.



ABOUT CYTOTOXIC CHEMOTHERAPY

When to call your care team

Call Medical Hematology/Oncology Clinic at **503-494-6594** or Hematologic Malignancies Clinic Triage at **503-418-0669** if you have:

- A fever of 100.4 degrees (F) or higher
- Vomiting or diarrhea that does not go away with medication
- Blood in stool (poop) or urine (pee)
- Bleeding that does not stop, or bruises you do not remember getting



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When to call your care team

- Sores in your mouth that make it difficult for you to eat or drink enough
- A headache, balance problems or difficulty seeing
- A cough or breathing problems
- A rash or skin problems



ABOUT CYTOTOXIC CHEMOTHERAPY

When to call your care team

When receiving cytotoxic chemotherapy, it is very important to report side effects to the clinic if you are feeling any of the below:

- Diarrhea more than 3 times a day, or not relieved by medication
- New cough, shortness of breath or difficulty breathing
- Any rash or skin problems



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When to call your care team

You can also call your care team on weekends, evenings and holidays. The same phone number will connect you with the cancer doctor who is available for questions and problems (on call). We may ask you to come to the Emergency Department to be checked.



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Phone numbers to remember

- Hematology & Medical Oncology Clinic
Center for Health and Healing, Building 2 **503-494-6594**
- Center for Hematologic Malignancies Clinic
Center for Health and Healing, Building 2 **503-494-5058**
Triage Nurse **503-418-0669***
–If your caregiver becomes sick, please call the triage line
for advice on how to stay safe

*These phone numbers will connect you to the on-call physician when the clinic is closed.



UNDERSTANDING YOUR CHEMOTHERAPY

Contacting your Community Hematology/Oncology (CHO) team

Regular clinic hours are 7 a.m.–5:30 p.m.

Beaverton Clinic

15700 S.W. Greystone Court, Beaverton, OR 97006

971-262-9000

East Portland (Adventist) Clinic

10000 SE Main St., Suite 350 Portland, OR 97216

971-262-9800

Gresham (Mt. Hood) Clinic

24988 SE Stark St., Suite 140 Gresham, OR 97030

971-262-9500

Northwest (Good Samaritan) Clinic

1130 NW 22nd Ave., Suite 150 Portland, OR 97210

971-262-9600

Tualatin (Meridian) Clinic

19260 SW 65th Ave. Suite 140 Tualatin, OR 97062

971-262-9700

A provider is available for emergencies after-hours (before 7 a.m. & after 5:30 p.m.) through your clinic phone number.

Thank you!

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Certificate of Completion

SIGNATURE

DATE