

Cyclophosphamide (Cytosan®)

About This Drug

Cyclophosphamide is used to treat cancer. It is given orally (by mouth) and in the vein (IV).

Possible Side Effects

- A decrease in the number of white blood cells which may raise your risk of infection
- Fever and fever in the setting of decreased white blood cells, which is a serious condition that can be life-threatening
- Infection. Severe infections, including viral, bacterial and fungal, which can be life-threatening.
- Nausea and vomiting (throwing up)
- Diarrhea (loose bowel movements)
- Hair loss. Hair loss is often temporary, although with certain medicine, hair loss can sometimes be permanent. Hair loss may happen suddenly or gradually. If you lose hair, you may lose it from your head, face, armpits, pubic area, chest, and/or legs. You may also notice your hair getting thin.

Note: *Not all possible side effects are included above.*

Warnings and Precautions

- Severe bone marrow suppression, which can be life-threatening. This is a decrease in the number of white blood cells, red blood cells, and platelets. This may raise your risk of infection, make you tired and weak (fatigue), and raise your risk of bleeding.
- Abnormal heart beat and/or changes in the tissue of the heart, which can be life-threatening. Some changes may happen that can cause your heart to have less ability to pump blood.
- Effects on the bladder and kidneys that may be life-threatening. This drug may cause inflammation (swelling), irritation and bleeding in the bladder and/or kidneys. You may have blood in your urine.
- Changes in your liver function and blockage of small veins in the liver, which can cause liver failure and be life-threatening.
- Inflammation (swelling) of the lungs, and changes to the small vessels of your lungs. You may have a dry cough or trouble breathing.
- This drug may cause slow wound healing
- Electrolyte changes, especially a decrease in sodium which can be life-threatening
- This drug may raise your risk of getting a second cancer

- These side effects may be more severe if you are receiving high doses of this medication included in pre-transplant chemotherapy.

Note: Some of the side effects above are very rare. If you have concerns and/or questions, please discuss them with your medical team.

Important Information

- Your doctor may prescribe you to drink extra fluids after your treatment to flush your bladder and urinate often to help decrease the risk of the effects on your bladder.
- If you must have emergency surgery or have an accident that results in a wound, tell the doctor that you are on cyclophosphamide.

How to Take Your Medication

- **For Oral Only:** Swallow the medicine whole with or without food. Do not chew, break or crush it. Do not touch a broken or crushed tablet. Do not take the medicine at bedtime.
- **Missed dose:** If you miss a dose, do not take 2 doses at the same time or extra doses. Call your doctor or nurse for further instructions.
- **Handling:** Wash your hands after handling your medicine, your caretakers should not handle your medicine with bare hands and should wear latex gloves.
- This drug may be present in the saliva, tears, sweat, urine, stool, vomit, semen, and vaginal secretions. Talk to your doctor and/or your nurse about the necessary precautions to take during this time.
- If you get any of the content of a broken capsules on your skin, you should wash the area of the skin well with soap and water right away. Call your doctor if you get a skin reaction.
- **Storage:** Store this medicine in the original container at room temperature. Do not store at temperature above 30°C (86°F).
- **Disposal of unused oral medicine:** Do not flush any expired and/or unused medicine down the toilet or drain unless you are specifically instructed to do so on the medication label. Some facilities have take-back programs and/or other options. If you do not have a take-back program in your area, then please discuss with your nurse or your doctor how to dispose of unused medicine.

Treating Side Effects

- Manage tiredness by pacing your activities for the day.
- Be sure to include periods of rest between energy-draining activities.
- To decrease the risk of infection, wash your hands regularly.
- Avoid close contact with people who have a cold, the flu, or other infections.
- Take your temperature as your doctor or nurse tells you, and whenever you feel like you may have a fever.
- To help decrease the risk of bleeding, use a soft toothbrush. Check with your nurse before using dental floss.
- Be very careful when using knives or tools.

- Use an electric shaver instead of a razor.
- Keeping your pain under control is important to your well-being. Please tell your doctor or nurse if you are experiencing pain.
- Drink plenty of fluids (a minimum of eight glasses per day is recommended).
- If you throw up or have loose bowel movements, you should drink more fluids so that you do not become dehydrated (lack of water in the body from losing too much fluid).
- If you have diarrhea, eat low-fiber foods that are high in protein and calories and avoid foods that can irritate your digestive tracts or lead to cramping.
- Ask your nurse or doctor about medicine that can lessen or stop your diarrhea.
- To help with nausea and vomiting, eat small, frequent meals instead of three large meals a day. Choose foods and drinks that are at room temperature. Ask your nurse or doctor about other helpful tips and medicine that is available to help stop or lessen these symptoms.
- To help with hair loss, wash with a mild shampoo and avoid washing your hair every day.
- Avoid rubbing your scalp, pat your hair or scalp dry.
- Avoid coloring your hair.
- Limit your use of hair spray, electric curlers, blow dryers, and curling irons.
- If you are interested in getting a wig, talk to your nurse. You can also call the American Cancer Society at 800-ACS-2345 to find out information about the “Look Good, Feel Better” program close to where you live. It is a free program where women getting chemotherapy can learn about wigs, turbans and scarves as well as makeup techniques and skin and nail care.

Food and Drug Interactions

- There are no known interactions of cyclophosphamide with food.
- Check with your doctor or pharmacist about all other prescription medicines and over-the-counter medicines and dietary supplements (vitamins, minerals, herbs and others) you are taking before starting this medicine as there are known drug interactions with cyclophosphamide

Also, check with your doctor or pharmacist before starting any new prescription or over-the-counter medicines, or dietary supplement to make sure that there are no interactions.

When to Call the Doctor

Call your doctor or nurse if you have any of these symptoms and/or any new or unusual symptoms:

- Fever of 100.4° F (38° C) or higher
- Chills
- Tiredness that interferes with your daily activities
- Feeling dizzy or lightheaded
- Easy bleeding or bruising
- Dry cough
- Trouble breathing
- Swelling of arms, hands, legs, and/or feet

- Weight gain of 5 pounds in one week (fluid retention)
- Feeling that your heart is beating in a fast or not normal way (palpitations)
- Pain in your chest
- Nausea that stops you from eating or drinking and/or is not relieved by prescribed medicines
- Throwing up more than 3 times a day
- Diarrhea, 4 times in one day or diarrhea with lack of strength or a feeling of being dizzy
- Decreased urine, or very dark urine
- Pain when passing urine; blood in urine
- Decreased urine or difficulty urinating
- Signs of possible liver problems: dark urine, pale bowel movements, bad stomach pain, feeling very tired and weak, unusual itching, or yellowing of the eyes or skin
- If you think you may be pregnant or may have impregnated your partner

Reproduction Warnings

- **Pregnancy warning:** This drug can have harmful effects on the unborn baby. Women of childbearing potential should use highly effective methods of birth control during your cancer treatment and for 1 year after treatment. Men with female partners who are pregnant or may become pregnant should use a condom during your cancer treatment and for at least 4 months after your cancer treatment. Let your doctor know right away if you think you may be pregnant or may have impregnated your partner.
- In women, menstrual bleeding may become irregular or stop while you are getting this drug. Do not assume that you cannot become pregnant if you do not have a menstrual period.
- **Breastfeeding warning:** This drug passes into breast milk. For this reason, women should talk to their doctor about the risks and benefits of breastfeeding during treatment with this drug because this drug may enter the breast milk and cause harm to a breastfeeding baby.
- **Fertility warning:** In men and women both, this drug may affect your ability to have children in the future. Talk with your doctor or nurse if you plan to have children. Ask for information on sperm or egg banking.

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