

Chronic Lymphocytic Leukemia (CLL): Chemotherapy



What is chemotherapy?

Chemotherapy (chemo) uses strong medicines to kill cancer cells. The medicines attack and kill cancer cells that grow quickly. Some normal cells also grow quickly. Because of this, chemo can also harm those cells. This can cause side effects.

When might chemo be used for CLL?

For chronic lymphocytic leukemia (CLL), chemo may be the first treatment used. Your healthcare provider may suggest chemo if you start to have symptoms or signs that your leukemia is getting worse (such as blood counts getting worse).

Chemo won't cure CLL. But it can often help keep it under control. Even if the leukemia is very advanced, chemo may help ease symptoms. This can help you feel better and improve your quality of life.

How is chemo given for CLL?

Most people get chemo in an outpatient part of the hospital, at a healthcare provider's office, or at an infusion clinic. Some people may need to stay in the hospital during treatment. This depends on the medicines you are given and your overall health.

You may get chemo in pill form, by injection, or through a small, flexible tube that's put into a vein by IV (intravenously). You may get chemo in more than one way.

You get chemo in cycles over a period of time. This means you take the medicine for a set amount of time and then you have a rest period. Each period of treatment and rest is one cycle. You'll likely get several cycles. Having treatment in cycles helps by:

- **Killing more cancer cells.** Chemo can kill more cancer cells over time because the cells aren't all dividing at the same time. Cycles allow the chemo to fight more cells.
- **Giving your body a rest.** Treatment is hard on other cells of the body that divide quickly. This includes cells in the lining of the mouth and stomach. This causes side effects, such as mouth sores and nausea. Chemo can also cause a drop in healthy blood cells. Between cycles your body can get a rest and healthy cells can recover.
- **Giving your mind a rest.** Chemo can be stressful. Taking breaks between cycles can let you get an emotional break between treatments.

Which chemo medicines are used to treat CLL?

The chemo medicines used most often for CLL include:

- Fludarabine
- Chlorambucil
- Cyclophosphamide
- Bendamustine

You may get one medicine at a time, or a combination of medicines. Chemo is often combined with other medicines called targeted therapy.

The medicines you get and how often you get them will depend on many factors. These include your overall health, the genetic changes in your CLL cells, and your age. For instance, if you're older or have other major health problems, you may be given a chemo medicine that tends to cause fewer side effects.

Your healthcare provider may also give you medicines called steroids, such as prednisone or dexamethasone. This is done to help fight a problem of CLL in which the immune system attacks the body's healthy blood cells.

What are common side effects of chemo?

Chemo medicines attack and kill cells that divide quickly, such as cancer cells. They can also affect normal cells that divide quickly. These include hair follicles, the lining of the intestines and mouth, and the bone marrow cells where new blood cells are made. The side effects of chemo are different for everyone. They often go away over time when treatment ends.

The most common short-term side effects of chemo include:

- Loss of appetite
- Easy bruising or bleeding from low levels of blood platelets
- Diarrhea
- Severe tiredness (fatigue) from having low levels of red blood cells (anemia)
- Hair loss
- Headaches
- Increased chance of infections from low levels of white blood cells
- Loss of sexual desire
- Mouth sores
- Nausea and vomiting
- Pain when swallowing

Tumor lysis syndrome is another possible side effect of chemo. It tends to happen during the first cycle if you have a very high number of CLL cells in your blood (sometimes called bulky disease). The chemo kills the cells and all the cell waste is dumped into your blood. Your kidneys can't filter it out fast enough. This can lead to serious problems like kidney failure and heart rhythm changes. To keep this from happening, you might get extra fluid in your IV to help wash the cell waste through your kidneys. If your risk for tumor lysis syndrome is high, certain medicines can also be used to help prevent it.

Working with your healthcare provider

It's important to know which medicines you're taking. Write down the names of your medicines. Ask your healthcare team how they work, what they do, and what side effects they might cause.

Talk with your healthcare providers about what signs to look for, and when you should call them. Make sure you know what number to call with questions, even on evenings, holidays, and weekends.

It may be helpful to keep a diary of your side effects. Write down any physical, thinking, and emotional changes. A written list will make it easier for you to remember your questions when you go to your appointments. It will also make it easier for you to work with your healthcare team to make a plan to manage your side effects.

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