

Adult Acute Lymphocytic Leukemia

KEY POINTS

- Acute lymphocytic leukemia (ALL) is a fast-growing cancer of the blood and bone marrow. It affects white blood cells called lymphocytes.
 - There are several types of ALL. Your treatment will depend on the type you have. You and your healthcare provider will discuss possible treatments. You may also talk with a cancer specialist.
 - Talk about your cancer and treatment options with your healthcare provider. Make sure you understand your choices.
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What is adult acute lymphocytic leukemia?

Acute lymphocytic leukemia (ALL) is a fast-growing cancer of the blood and bone marrow. It affects white blood cells called lymphocytes. The cancer causes large numbers of a certain type of abnormal white cells to form. These abnormal cells start in the bone marrow and crowd out the normal blood cells. They can also go through (circulate) in the bloodstream.

The sooner cancer is found and treated, the better your chances for recovery. However, even advanced cancer can usually be treated. Treatment may slow or stop the growth of the cancer and ease symptoms for a time. Ask your healthcare provider what you can expect with your treatment plan.

What is the cause?

The cancer starts in the bone marrow. Marrow is the soft, fatty tissue inside the hard bone. The marrow is where blood cells are formed.

- White blood cells help fight infection.
- Red blood cells carry oxygen and nutrients to your body.
- Platelets help your blood clot.

Normally, lymphocytes help your body fight infection and other diseases. Acute lymphocytic leukemia happens when your body makes too many abnormal lymphocytes. The abnormal cells crowd out other, normal blood cells needed by your body.

- The abnormal white cells cannot fight infections.
- Fewer red blood cells make you tired and weak.
- Fewer platelets cause you to bleed easily.

The cancer can also spread to other parts of your body, such as the brain.

The exact cause of ALL is unknown, but there are some known risk factors for developing ALL. You are more likely to get ALL if you:

- Are male
- Are Caucasian
- Are 65 years old or older
- Have had cancer chemotherapy or radiation therapy before
- Have been exposed to the chemical benzene
- Have been exposed to high amounts of radiation
- Have a genetic condition that increases your risk

What are the symptoms?

Often the first symptoms are the same as other diseases. Symptoms may include:

- Tiredness
- Weakness
- Fever
- Infections
- Easy bruising or bleeding
- Full feeling below the ribs, especially on the left
- Swollen lymph nodes in the neck, underarms, and groin

How is it diagnosed?

Your healthcare provider will ask about your medical history, including symptoms and possible risk factors, and you will have a physical exam. You may have tests such as:

- A blood count test to see if you have enough of each type of blood cell and to see if the cells look normal under a microscope
- A blood test to see what type of ALL you have.
- A bone marrow biopsy, which uses a needle passed through the skin into the bone marrow to take a small sample of tissue for testing

You may need more lab tests and scans to check if the cancer has spread to other parts of your body.

How is it treated?

There are several types of ALL. Your treatment will depend on the type you have. You and your healthcare provider will discuss possible treatments. You may also talk with a cancer specialist. Some things to think about when making treatment decisions are:

- Your age
- Your overall health
- Changes in genes that are specific to your type of ALL
- Whether the cancer has spread to other parts of your body

Possible treatments are:

- Chemotherapy (anticancer drugs), which uses medicine to kill cancer cells
- Radiation therapy, which uses high-energy X-rays to kill cancer cells
- Stem cell or bone marrow transplant, which uses your own cells or cells from a donor. First, you are given high-dose chemotherapy to destroy your old blood-forming cells. The new transplanted cells grow in to healthy blood cells.
- Biological therapy, which uses medicine to help your immune system fight the cancer

Your treatment will also include:

- Preventing infections
- Controlling pain or other symptoms you may have
- Preventing or controlling the side effects from treatments, which may be different for each person based on the treatment you receive
- Helping you manage your life with cancer

Treatment for ALL can take up to 2 years or more. Often, more than 1 type of treatment is used. When cancer cells are no longer seen in the bone marrow, this is called remission. Most people will go into remission with treatment. When the cancer is in remission, you will need to have regular follow-up visits with your healthcare provider to keep checking your blood counts and overall health. You may have ongoing treatment to keep the cancer in remission. For about half of the people who go into remission, the cancer returns in weeks, months, or years. If the cancer comes back, it can be treated.

Ask your healthcare provider about clinical trials that might be available to you. Clinical trials are research studies to find effective cancer treatments. It's always your choice whether you take part in one or not.

How can I take care of myself?

If you have been diagnosed with ALL:

- Talk about your cancer and treatment options with your healthcare provider. Make sure you understand your choices.
- Follow the full course of treatment prescribed by your healthcare provider.
- Ask your healthcare provider:
 - How and when you will get your test results
 - How long it will take to recover
 - If there are activities you should avoid and when you can return to normal activities
 - How to take care of yourself at home
 - What symptoms or problems you should watch for and what to do if you have them

Make sure you know when you should come back for a checkup. Keep all appointments for provider visits or tests.

Other things that may help include:

- Eat a variety of healthy foods.

- Stay physically active as advised by your provider.
- Get plenty of rest.
- Try to reduce stress and take time for activities that you enjoy. It may help to talk with a counselor about your illness.
- Talk with your family and your healthcare providers about your concerns. Ask your healthcare provider any questions you have about the disease, treatments, side effects of the treatments, sexual activity, support groups, and anything else that concerns you.
- If you smoke or use e-cigarettes, try to quit.
- Ask your provider if you need to avoid drinking alcohol. It may interfere with medicines you are taking. Alcohol can also make it harder for white blood cells to fight infections.
- Tell your provider if your treatment causes discomfort. Usually there are ways to help you be more comfortable.

You may be more at risk for serious infections during and after your treatment. Try to stay away from people who may be sick. Avoid crowded places such as shopping malls when you can. Practice good hand washing.

For more information, contact:

- Leukemia and Lymphoma Society
800-955-4572
<https://www.lls.org/>

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