

# Acute Lymphocytic Leukemia

## What is acute lymphocytic leukemia?

Acute lymphocytic leukemia (ALL) is a cancer of the immature lymphocytes, a type of white blood cell involved in the body's immune system. In people with ALL, lymphocytes that do not mature, called lymphoblasts, replace healthy lymphocytes and crowd out other important cells in the bone marrow and other organs in the lymphatic system. Also called acute lymphoid leukemia or acute lymphoblastic leukemia, ALL begins and worsens quickly. People with ALL usually need immediate treatment.

## What is the function of lymphocytes?

Lymphocytes fight disease and infection. There are 3 types of lymphocytes: B cells, T cells, and natural killer cells. They are found in the bone marrow, which is the spongy tissue inside of bones, as well as the blood, lymph nodes, and spleen.

## What do subtype and classification mean?

To help plan treatment and predict prognosis, doctors divide ALL into subtypes and classify it based on whether B-cell or T-cell lymphocytes are affected. It is also classified by specific chromosomal or genetic changes found in the leukemia cells. Doctors further describe ALL as newly diagnosed and untreated, in remission, refractory, or recurrent. Find more information at [www.cancer.net/all](http://www.cancer.net/all).

## How is acute lymphocytic leukemia treated?

The treatment of ALL depends on the subtype, classification, possible side effects, and the patient's preferences and overall health. Many subtypes of ALL can be cured with treatment. The type and specific genetic features of the ALL and the patient's age affect how well treatment works. Chemotherapy with several drugs may be given during different stages of treatment to destroy cancer cells. In some cases, targeted therapy directed against genes or proteins that contribute to cancer growth is used. Radiation therapy is sometimes used to destroy cancerous cells around the brain and spinal column. A stem cell/bone marrow transplant may also be a treatment option. When making treatment decisions, people may consider a clinical trial; talk with your doctor about all treatment options. The side effects of ALL treatment can often be prevented or managed with the help of your health care team. This is called palliative care and is an important part of the overall treatment plan.

## How can I cope with acute lymphocytic leukemia?

Absorbing the news of a cancer diagnosis and communicating with your health care team are key parts of the coping process. Seeking support, organizing your health information, making sure all of your questions are answered, and participating in the decision-making process are other steps. Talk with your health care team about any concerns. Understanding your emotions and those of people close to you can be helpful in managing the diagnosis, treatment, and healing process.

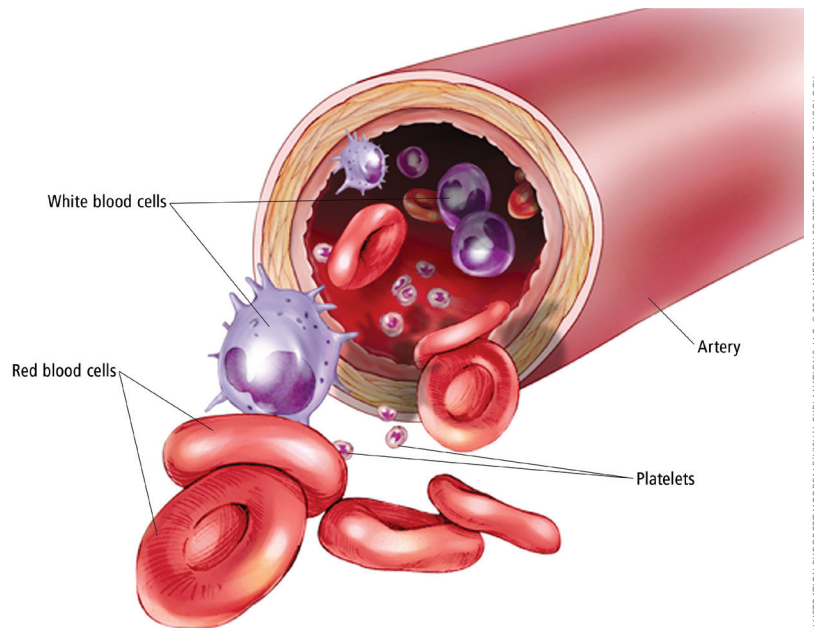


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## Questions to ask the health care team

Regular communication is important in making informed decisions about your health care. Consider asking your health care team the following questions:

- What subtype of ALL has been diagnosed?
- Can you explain my pathology report (laboratory test results) to me?
- Would you explain my treatment options?
- What clinical trials are available for me? Where are they located, and how do I find out more about them?
- What treatment plan do you recommend? Why?
- What is the goal of each treatment? Is it to eliminate the leukemia, help me feel better, or both?
- Who will be part of my treatment team, and what does each member do?
- How will this treatment affect my daily life? Will I be able to work, exercise, and perform my usual activities?
- Will this treatment affect my ability to become pregnant or have children?
- What long-term side effects may be associated with my treatment plan?
- What follow-up tests will I need, and how often will I need them?
- If I'm worried about managing the costs of cancer care, who can help me?
- Where can I find emotional support for me and my family?
- Whom should I call with questions or problems?

Find more questions to ask the health care team at [www.cancer.net/all](http://www.cancer.net/all). For a digital list of questions, download Cancer.Net's free mobile app at [www.cancer.net/app](http://www.cancer.net/app).

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## WORDS TO KNOW

### Bone marrow biopsy:

Removal and analysis of a bone marrow sample from the center of the bones

### Chemotherapy:

The use of drugs to destroy cancer cells

### Clinical trial:

A research study that tests a new treatment or drug

### Cytogenetics:

Analysis of a cell's chromosomes

### Flow cytometry and cytochemistry:

Blood tests used to identify the subtype of ALL

### Hematologist:

A doctor who specializes in treating blood disorders

### Lymph node:

A tiny, bean-shaped organ that fights infection

### Oncologist:

A doctor who specializes in treating cancer

### Prognosis:

Chance of recovery

### Radiation therapy:

The use of high-energy x-rays to destroy cancer cells

### Remission:

The absence of any signs or symptoms of disease

### Stem cell/bone marrow transplant:

Procedure that replaces diseased bone marrow with healthy stem cells that create new bone marrow

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