

Acute Myeloid Leukemia (AML)

AML is a blood cancer that starts in the bone marrow but moves quickly into the blood, sometimes spreading to other parts of the body.

What is AML?



Leukemia is classified based on two attributes—its speed of progression and the type of white blood cells affected.

Leukemia is described as being either **acute** (fast growing) or **chronic** (slow growing), and either **myelogenous** (affecting the myeloid cells) or **lymphocytic** (affecting the lymphoid cells, or lymphocytes).

Global Incidence

AML is the most common type of acute leukemia in adults. Patients **70 and older** have a higher incidence rate

In 2021, the worldwide incidence of AML was nearly **144,645**



Fast Growing Leukemia

Acute Lymphocytic Leukemia

Acute Myeloid (or Myelogenous) Leukemia



Slow Growing Leukemia

Chronic Lymphocytic Leukemia

Chronic Myeloid (or Myelogenous) Leukemia

Causes and Risk Factors



Today, researchers understand a lot more about what may cause AML. DNA mutations, which may result from exposure to radiation, cancer-causing chemicals or the aging process, are commonly found in AML cells.

Signs and Symptoms

At first, patients with AML often have non-specific symptoms usually associated with more common ailments like the flu. Often, signs and symptoms result from a shortage of normal blood cells, which happens when the leukemia cells crowd out the normal blood-making cells in the bone marrow.

These signs and symptoms include:



Fever



Easy bruising or bleeding



Shortness of breath



Weight loss or loss of appetite



Weakness or feeling tired



Petechiae [red or purple pinpoint spots on the skin]

Prognosis

In general, prognosis for AML patients is poor.

Prognosis is influenced by patient age, AML subtype, and other factors

Estimated 5-year survival rate for AML is **29.5%** in US populations

The median survival after relapse is **<5 months** for older patients in the US

Treatment

Standard types of frontline (or initial) treatment for AML include:



Chemotherapy, which may be given in two phases: induction therapy and consolidation therapy



Stem cell/bone marrow transplants which are typically used in younger, generally healthy patients when a donor is available



Hypomethylating agents which are typically used in older patients who are ineligible for intensive treatment



Research has also shown that the **presence or absence of specific gene mutations**—including in isocitrate dehydrogenase (IDH), CEBPA, NPM and FLT3—can inform prognosis and guide treatment decisions in AML



Innovative, **targeted therapies** directed against mutations - those currently approved and those in development - **have broadened the treatment landscape**