

Acute leukemias have a slow onset and progression

*** This is **false**; acute leukemias have a **rapid onset** and **progression**.

Acute leukemia is characterized by malignant proliferation of white blood cell precursors (*blasts*) in bone marrow and lymph tissue and their accumulation in peripheral blood, bone marrow, and body tissues. Leukemic cells inhibit normal bone marrow production of erythrocytes, platelets, and immune function.

Other important features of **acute** leukemia:

- **Abrupt** onset (*few months*) with sudden high fever, weakness, malaise, severe anemia, and generalized lymphadenopathy; bone and joint pain common in children.
- **Principal organ** involved: **bone marrow** (*along with the spleen and liver*)
- **Petechiae** and **ecchymoses** in skin and mucous membranes, hemorrhage from various sites; bacterial infections common.
- Laboratory findings: leukocytosis **30,000-100,000** per cu.mm. with **immature** forms (*myeloblasts and lymphoblasts*) predominating.
- In 75% of the cases of acute lymphocytic leukemia, the **lymphocytes** are neither B nor T-cells and are called “**null cells.**”
- Untreated patients **die within six months**; with intensive therapy (*chemotherapy, radiation, and bone marrow transplants*) remissions lasting up to five years may be obtained; death is usually due to a hemorrhage (*brain*) or a superimposed bacterial infection.