

Acute Leukemia

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Leukemia is a malignant disease (cancer) that originates in a cell in the bone marrow. It is characterized by the uncontrolled growth of developing marrow cells. There are two major classifications of leukemia: myelogenous or lymphocytic, which can each be acute or chronic. The terms myelogenous or lymphocytic denote the cell type involved. Thus, four major types of leukemia are: acute or chronic myelogenous leukemia and acute or chronic lymphocytic leukemia.

Acute leukemia is a rapidly progressing disease that results in the accumulation of immature, functionless cells in the marrow and blood. The marrow often can no longer produce enough normal red and white blood cells and platelets. Anemia, a deficiency of red cells, develops in virtually all leukemia patients as the abnormal white blood cells crowd the red blood cells out of the marrow. The lack of normal white cells impairs the body's ability to fight infections. A shortage of platelets results in bruising and easy bleeding. Chronic leukemia progresses more slowly and permits greater numbers of more mature, functional cells to be made. In children, optimism abounds. With advances over the last 25 years, centers that specialize in the treatment of children with acute lymphocytic leukemia have very high cure rates!

By contrast, the most common form of leukemia among older persons is acute myelogenous leukemia (AML). AML incidence rates increase dramatically among people who are over the age of 40. It is most prevalent in the sixth, seventh and eighth decade of life. The second most common adult leukemia is chronic lymphocytic leukemia.

Signs & Symptoms Signs of acute leukemia may include: easy bruising or bleeding (as a result of platelet deficiency), paleness or easy fatigue (as a result of anemia), recurrent minor infections or poor healing of minor cuts (as a result of impaired white cell function).

These symptoms and signs are not specific to leukemia and may be caused by other disorders. They do however, warrant medical evaluation. A proportion of people with chronic leukemia may not have major symptoms and are diagnosed during a periodic medical examination. The diagnosis of leukemia requires examination of the cells in blood or marrow.

Possible Causes Anyone can get leukemia. Leukemia affects all ages and both sexes. The cause of leukemia is not known. Chronic exposure to benzene in the workplace and exposure to high doses of radiation increase the risk of developing the disease.

{mospagebreak title=Treatment}

Treatment The aim of treatment is to bring about a complete remission. Complete remission means that there is no evidence of the disease and the patient returns to good health with normal blood and marrow cells. Relapse indicates a return of the leukemia cells and return of other signs and symptoms of the disease. For acute leukemia, a complete remission that lasts five years after treatment often indicates cure. Treatment centers are reporting increasing numbers of children and younger adults with leukemia in complete remission at least five years after diagnosis of their disease.

{mospagebreak title=Survival}

SurvivalThe overall five-year survival rate has tripled in the past 40 years for patients with leukemia. In 1960, the overall five-year survival rate was 14 percent, by the 1970's it had reached 35 percent and now the overall five-year survival rate is 44 percent.

The survival rates differ by age of the patient and type of disease.

- Acute lymphocytic leukemia overall five-year survival is 58 percent
- Chronic lymphocytic leukemia overall five-year survival is 71 percent
- Acute myelogenous leukemia overall five-year survival is 14 percent
- Chronic myelogenous leukemia overall five-year survival is 32 percent
- The overall five-year survival rate for children with acute lymphocytic leukemia is 81 percent. The survival rate for children with acute myelogenous leukemia is 43 percent. At the present time there are approximately 144,000 people living with leukemia in the United States.

{mospagebreak title=Get more information}

Get More InformationFurther details of treatment and supportive care and the beneficial and adverse effects of treatment may be obtained from the Society's informational booklets on acute myelogenous, acute lymphocytic, chronic myelogenous, chronic lymphocytic or hairy cell leukemia. Contact The Leukemia & Lymphoma Society, 1311 Mamaroneck Ave., White Plains, NY 10605 or call 1-800-955-4572.