



## Know More about Leukemia

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### EDITORIAL

Leukemia is a cancer of the blood or bone marrow. Bone marrow produces blood cells. Leukemia can develop due to a problem with blood cell production. It usually affects the leukocytes, or white blood cells.

Leukemia is most likely to affect people over the age of 55 years, but it is also the most common cancer in those aged under 15 years. The National Cancer Institute estimates that 61,780 people will receive a diagnosis of leukemia in 2019. They also predict that leukemia will cause 22,840 deaths in the same year. Acute leukemia develops quickly and worsens rapidly, but chronic leukemia gets worse over time. There are several different types of leukemia, and the best course of treatment and a person's chance of survival depends on which type they have.

Leukemia develops when the DNA of developing blood cells, mainly white cells, incurs damage. This causes the blood cells to grow and divide uncontrollably. The abnormal blood cells do not die at a natural point in their life cycle. Instead, they build up and occupy more space. As the bone marrow produces more cancer cells, they begin to overcrowd the blood, preventing the healthy white blood cells from growing and functioning normally. Eventually, the cancerous cells outnumber healthy cells in the blood.

### RISK FACTORS

There is a range of risk factors for leukemia. Some of these risk factors have more significant links to leukemia

**Artificial ionizing radiation:** This could include having received radiation therapy for a previous cancer, although this is a more significant risk factor for some types than others.

**Certain viruses:** The human T-lymphotropic virus (HTLV-1) has links to leukemia.

**Chemotherapy:** People who received chemotherapy treatment for a previous cancer have a higher chance of developing leukemia later in life.

**Exposure to benzene:** This is a solvent that manufacturers use in some cleaning chemicals and hair dyes.

### ACUTE LYMPHOCYTIC LEUKEMIA

Children under 5 years old are at the highest risk of developing acute lymphoblastic leukemia (ALL). However, It can also affect adults, typically over the age of 50 years. Out of every five deaths from ALL, four occur in adults.

### CHRONIC LYMPHOCYTIC LEUKEMIA

This is most common among adults over 55 years, but younger adults can also develop it. About 25% of adults with leukemia have chronic lymphocytic leukemia (CLL). It is more common in men than in women and rarely affects children.

### TREATMENT

Treatment options will depend on the type of leukemia a person has, their age, and their overall state of health. The primary treatment for leukemia is chemotherapy. A cancer care team will tailor this to suit the type of leukemia. If treatment starts early, the chance of a person achieving remission is higher.

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