LEUKAEMIA

Leukaemia is cancer that starts in the tissue that forms blood.

LEUKAEMIA CELLS

In a person with leukaemia, the bone marrow makes abnormal white blood cells. The abnormal cells are leukaemia cells. Unlike normal blood cells, leukaemia cells do not die when they should. They may crowd out normal white blood cells, red blood cells, and platelets. This makes it hard for normal blood cells to do their work.

TYPES OF LEUKAEMIA

Leukaemia is either chronic (which usually gets worse slowly) or acute (which usually gets worse quickly):

Chronic leukaemia: Early in the disease, the leukaemia cells can still do some of the work of normal white blood cells. People may not have any symptoms at first. When symptoms do appear they are usually mild at first and get worse gradually.

Acute leukaemia: The leukaemia cells cannot do any of the work of normal white blood cells. The number of leukaemia cells increases rapidly. Acute leukaemia usually worsens quickly.

There are four common types of leukaemia:

Chronic lymphocytic leukaemia (CLL): CLL affects lymphoid cells and usually grows slowly. Most often, people diagnosed with the disease are over age 55. It almost never affects children.

Chronic myeloid leukaemia (CML): CML affects myeloid cells and usually grows slowly at first. It mainly affects adults.

Acute lymphocytic (lymphoblastic) leukaemia (ALL): ALL affects lymphoid cells and grows quickly. ALL is the most common type of leukaemia in young children. It also affects adults.

Acute myeloid leukaemia (AML): AML affects myeloid cells and grows quickly. It occurs in both adults and children.

Hairy cell leukaemia: A rare type of chronic leukaemia.

RISK FACTORS

Research shows that certain risk factors increase the chance that a person will get this disease. The risk factors may be different for the different types of leukaemia:

Radiation: People exposed to very high levels of radiation are much more likely than others to get acute myeloid leukaemia, chronic myeloid leukaemia, or acute lymphocytic leukaemia. Sources of radiation may include:

- Atomic bomb explosions
- Radiation therapy
- Diagnostic x-rays

Smoking: Smoking cigarettes increases the risk of acute myeloid leukaemia.

Benzene: Exposure to benzene in the workplace can cause acute myeloid leukaemia. It may also cause chronic myeloid leukaemia or acute lymphocytic leukaemia. Benzene is used widely in the chemical industry. It is also found in cigarette smoke and gasoline.

Chemotherapy: Cancer patients treated with certain types of cancer-fighting drugs sometimes later get acute myeloid leukaemia or acute lymphocytic leukaemia.

Down syndrome and certain other inherited diseases: Down syndrome and certain other inherited diseases increase the risk of developing acute leukaemia.

Myelodysplastic syndrome and certain other blood disorders: People with certain blood disorders are at increased risk of acute myeloid leukaemia.

Human T-cell leukaemia virus type I (HTLV-I): People with HTLV-I infection are at an increased risk of a rare type of leukaemia known as adult T-cell leukaemia.

Family history of leukaemia: It is rare for more than one person in a family to have leukaemia but it happens.

SYMPTOMS

People with chronic leukaemia may not have symptoms. The doctor may find the disease during a routine blood test.

People with acute leukaemia usually go to their doctor because they feel sick. If the brain is affected, they may have headaches, vomiting, confusion, loss of muscle control, or seizures. Leukaemia also can affect other parts of the body such as the digestive tract, kidneys, lungs, heart, or testes.

Common symptoms of chronic or acute leukaemia may include:

- Swollen lymph nodes that usually do not hurt (especially lymph nodes in the neck or armpit)
- Fevers or night sweats
- Frequent infections
- Feeling weak or tired
- Bleeding and bruising easily (bleeding gums, purplish patches in the skin, or tiny red spots under the skin)
- Swelling or discomfort in the abdomen (from a swollen spleen or liver)
- Weight loss for no known reason
- Pain in the bones or joints. Most often, these symptoms are not due to cancer.

DIAGNOSIS

Physical exam: The doctor checks for swollen lymph nodes, spleen, or liver.

Blood tests: The lab does a complete blood count to check the number of white blood cells, red blood cells, and platelets. Leukaemia causes a very high level of white blood cells.

Biopsy: The doctor removes tissue to look for cancer cells. A biopsy is the only sure way to know whether leukaemia cells are in your bone marrow. This is done through:

- Bone marrow aspiration
- Bone marrow biopsy

Other tests include:

- Cytogenetics
- Spinal tap
- Chest x-ray

TREATMENT

People with leukaemia have many treatment options. The options are:

- Watchful Waiting
- Chemotherapy
- Targeted Therapy
- Biological Therapy
- Radiation Therapy
- Stem Cell Transplant

If your spleen is enlarged, your doctor may suggest surgery to remove it. Sometimes a combination of these treatments is used. The choice of treatment depends mainly on the following:

- The type of leukaemia (acute or chronic)
- Your age
- Whether leukaemia cells were found in your cerebrospinal fluid
- It also may depend on certain features of the leukaemia cells.

Your doctor also considers your symptoms and general health.

Seek a second opinion

Before starting treatment you might want to get a second opinion on diagnosis and treatment plan.

Supportive care (comfort care/ palliative care/ symptom management)

This is care given to improve the quality of life of patients who have a serious or life-threatening disease. Supportive care for people with leukaemia can be given for the following:

- Infections
- Anaemia and bleeding
- Dental problems

Nutrition and physical activity

It is important to eat well and stay active. Walking, yoga, and other activities can keep you strong and increase your energy.

Follow-up care

You will need regular checkups after treatment for leukaemia.

SOURCES OF SUPPORT

- Doctors, nurses, and other members of your health care team
- Social workers, counsellors, or members of the clergy
- Support groups
- Cancer Institutions such as the Africa Cancer Foundation and Faraja Cancer Support Trust

Adapted with permission from:

What You Need To Know About Leukaemia, National Cancer Institute

Funded by: The Rockefeller Foundation

Rockefeller Foundation
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A publication of Africa Cancer Foundation (ACF)

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