City of Hope

WHAT YOU SHOULD KNOW ABOUT

Leukemia

What is leukemia?

Leukemia is cancer that forms in blood cells, and bone marrow.
In most cases, leukemia forms in white blood cells, which help the body fight infection. Over time, these cancerous blood cells divide, crowding out healthy cells, making it difficult to get oxygen to the blood, fight infection and control bleeding.

LEUKEMIA BY THE NUMBERS

THE 9TH MOST COMMON non-skin cancer in the U.S.

66,890 AMERICANS will be diagnosed with leukemia in 2025

The most common cancer among **CHILDREN YOUNGER THAN 15**

Most likely to occur in **ADULTS OLDER THAN 55+**

PERCENT OF NEW CASES by age

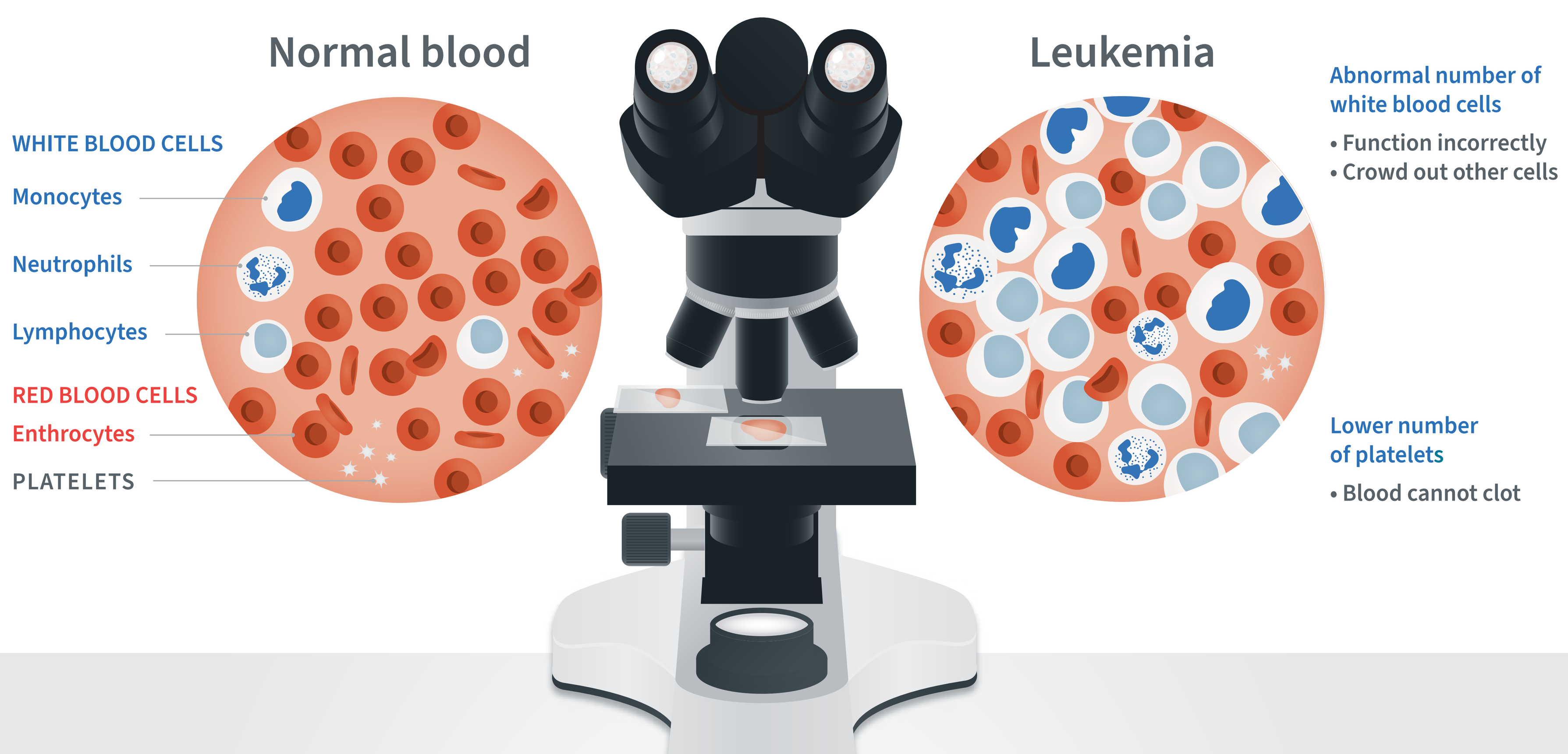
by age	0-19	20-34	35-44	45-54	55-64	65-74	75-84	85+
Percent of new cases	9%	4.5%	4.7%	9.9%	17.8%	24.4%	20.8%	10.9%

63.7% Percent of patients surviving five years after diagnosis

3.4% Percent of all new U.S. cancer diagnoses

434,982 Estimated number of people living with leukemia

A Closer Look



Types of Leukemia

Chronic vs. acute

Chronic leukemia
advances slowly and may not exhibit symptoms in early stages. Some patients may not even know they have chronic leukemia until they get a blood test.

COMMON TYPES OF CHRONIC LEUKEMIA

Chronic lymphocytic leukemia (CLL) is a slow-growing cancer that begins in immune cells called lymphocytes. These cells develop in bone marrow, but eventually travel into the blood. CLL develops when too many abnormal lymphocytes grow, crowding out normal blood cells.

Chronic myeloid leukemia (CML) is associated with an abnormal chromosome known as the Philadelphia chromosome, in which pieces of two chromosomes break off and trade places, forming a defective gene.
Also known as chronic myelogenous leukemia

Acute leukemia
develops rapidly and may cause a sudden onset of symptoms. This type of leukemia often requires immediate and aggressive treatment.

COMMON TYPES OF ACUTE LEUKEMIA

Acute lymphocytic leukemia (ALL) develops when abnormal white blood cells accumulate in the bone marrow. These cells divide rapidly, replacing healthy cells and, in some cases, invade healthy organs.
Also known as acute lymphoblastic leukemia and acute lymphoid leukemia

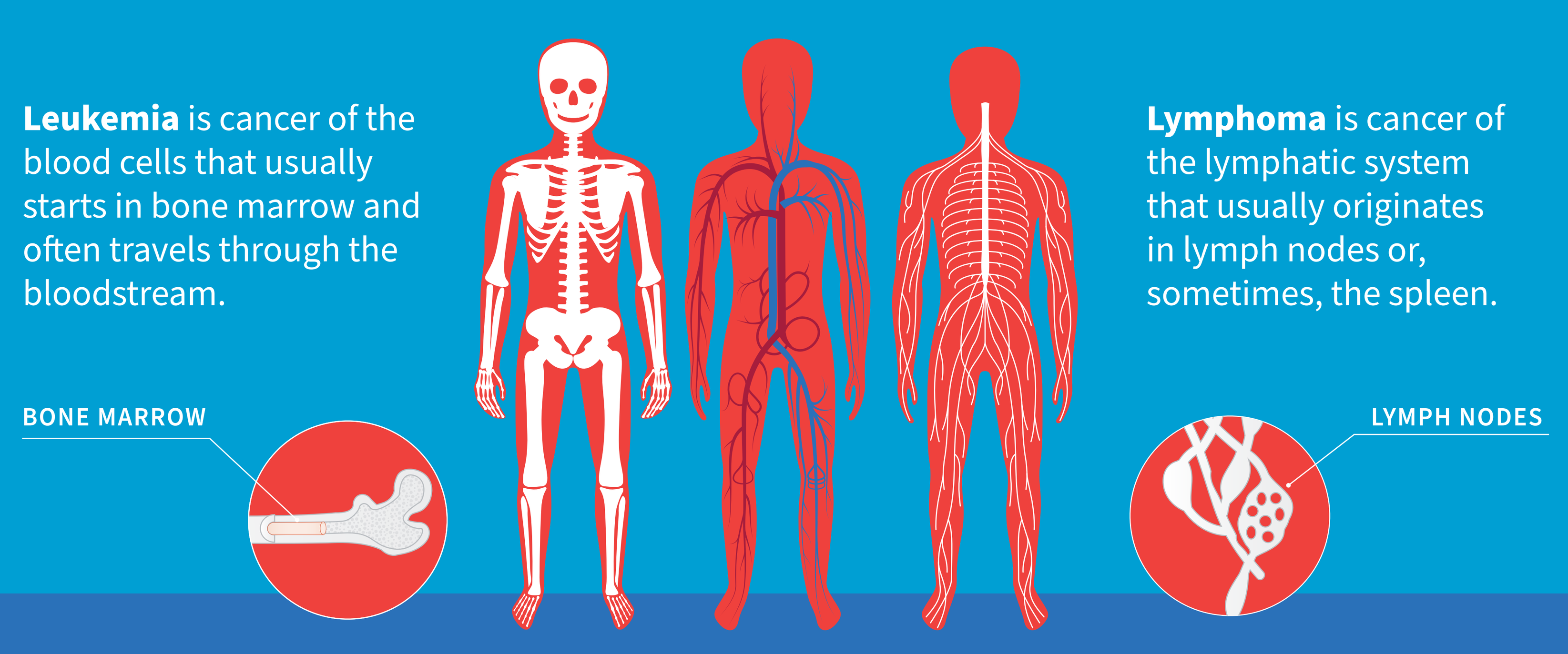
Acute myeloid leukemia (AML), the most common type of acute leukemia in adults, occurs when the bone marrow makes immature blood cells called myeloblasts.
Also known as acute myelogenous leukemia, acute myeloblastic leukemia, acute granulocytic leukemia or acute nonlymphocytic leukemia

Leukemia vs. Lymphoma

Lymphoma and leukemia, often called liquid cancers or blood cancers, share a common origin—lymphocytes, or white blood cells of the immune system.

Leukemia is cancer of the blood cells that usually starts in bone marrow and often travels through the bloodstream.

Lymphoma is cancer of the lymphatic system that usually originates in lymph nodes or, sometimes, the spleen.



Some liquid cancers may be considered either leukemia or lymphoma, depending on where they originate.
For instance: Chronic lymphocytic leukemia (CLL) and small lymphocytic lymphoma (SLL) affect the same kind of cells — *small lymphocytes* — and are often considered different versions of the same disease.

Risk Factors

Not all risk factors for leukemia are known, and those that are may vary depending on the type of leukemia.

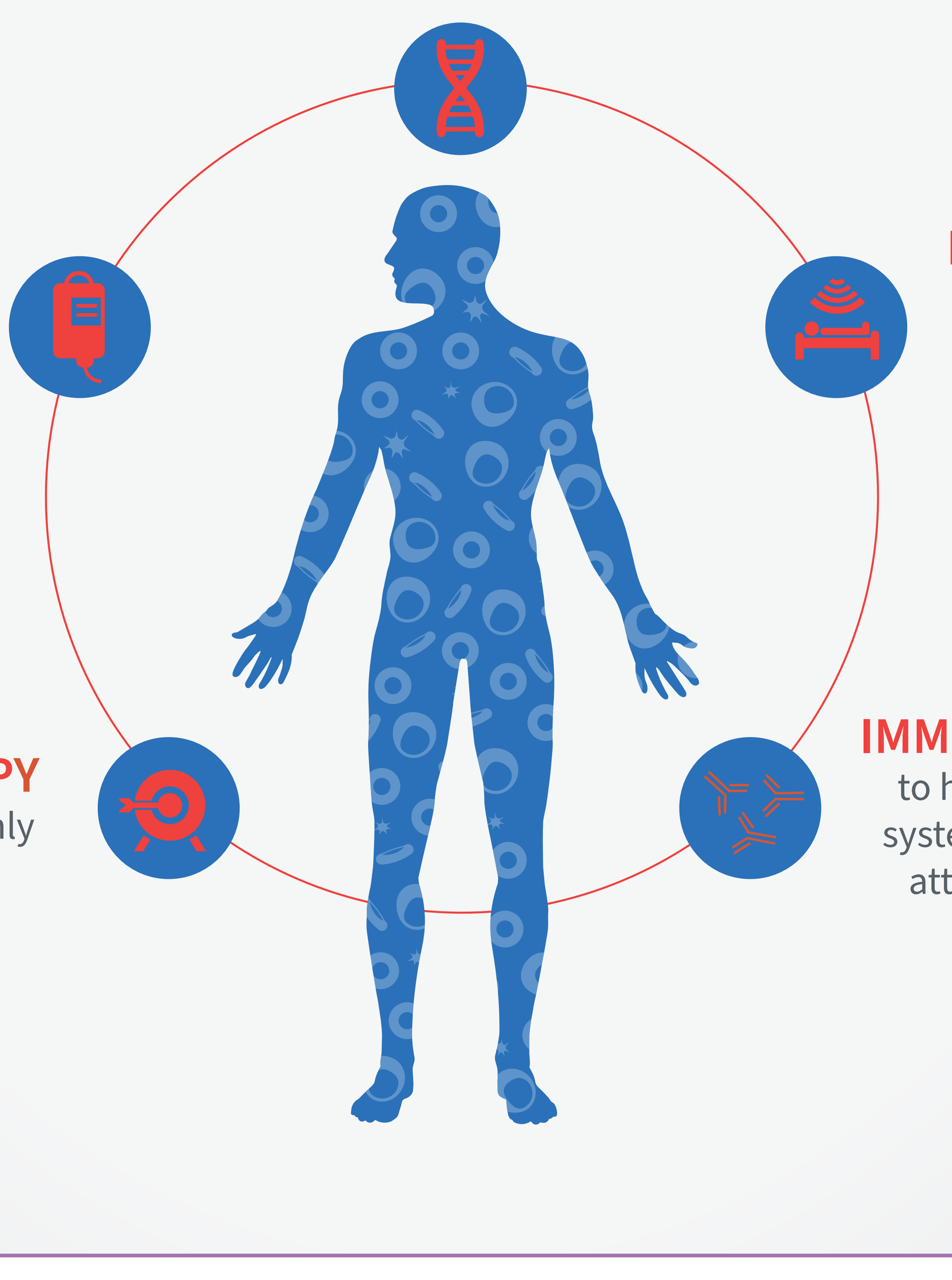
COMMON RISK FACTORS FOR SOME TYPES OF LEUKEMIA INCLUDE:

- RADIATION EXPOSURE
- CHEMICAL EXPOSURE
- PREVIOUS CANCER TREATMENTS
- INHERITED CANCER SYNDROMES
- BIRTH DISORDERS
- LEUKEMIA IN THE IMMEDIATE FAMILY (parents or siblings)

SYMPTOMS

- Fever
- Chills
- Fatigue
- Weakness
- Loss of appetite
- Weight loss
- Night sweats
- Headaches
- Frequent infections
- Easy bruising or bleeding
- Frequent nosebleeds
- Red patches on the skin

Treatment Options



STEM CELL TRANSPLANT
to help stimulate production of healthy cells in the bone marrow

CHEMOTHERAPY
intended to kill fast growing cells, including aggressive cancer cells

RADIATION THERAPY
to help kill cancer cells that have settled in organs, such as the liver or spleen

TARGETED THERAPY
to seek out and attack only leukemic cells

IMMUNOTHERAPY
to help the immune system recognize and attack cancer cells

City of Hope

For more information, visit **cityofhope.org**

SOURCES
National Cancer Institute, American Cancer Society

25000-New-50269