



## September Is Leukemia and Lymphoma Awareness Month

### What Is Leukemia?

Leukemia is a cancer of the white blood cells, which help fight infection. It is caused by the uncontrolled growth of these cells. Leukemia starts in the bone marrow, which is the spongy part inside the bones where blood cells are made. The cancer cells spread to the blood that circulates in the arteries and veins.

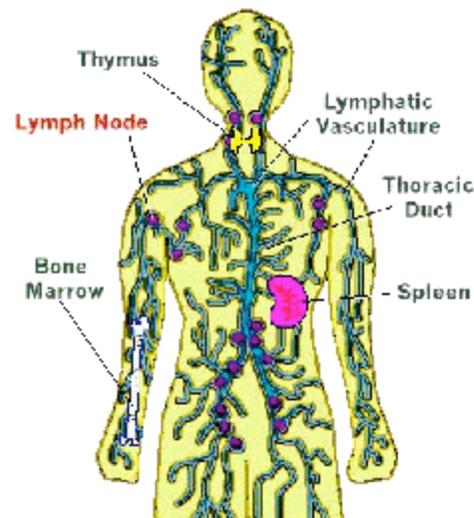
### What Are the Key Statistics About Leukemia?

- The American Cancer Society estimates that 44,600 people will be diagnosed with leukemia this year.
- About 21,780 people are expected to die from leukemia in the year 2011.
- Leukemia is commonly thought of as a childhood disease, yet it is diagnosed 10 times more often in adults.

### What Are the Types of Leukemia?

- Based on the time it takes one to develop the disease, leukemia has two forms, acute and chronic leukemia.
- Acute leukemia begins over a short period of time. In acute leukemia, there is a fast growth of immature cells in the bone marrow and peripheral blood.
- Chronic leukemia develops over a longer period of time. Compared to acute leukemia, it has more mature cells in the bone marrow and peripheral blood.
- Based on the **type of blood cells**, leukemia is divided into lymphocytic and myelogenous leukemia.

### Lymphatic System



### **What Are the Signs and Symptoms of Leukemia?**

- There are no exact signs and symptoms of leukemia.
- General symptoms include fatigue, or lack of energy, and flu-like symptoms including fever.
- A loss of appetite may also occur.
- Shortness of breath when active and a pale color of the skin and mucous membranes (this includes the lining of the inside of the nose and mouth). These symptoms are related to anemia, which is a decrease in the red blood cells that carry oxygen.
- Easy bruising and bleeding due to a drop in the platelet count. Platelets are part of the blood cells that help form blood clots.
- Poor wound healing and infections. This is because many of the white cells are immature and therefore not able to do their job.

### **What Are the Causes of Leukemia?**

- The exact cause of leukemia is not known.
- In very rare cases, chemotherapy or radiation therapy used to treat one cancer leads to leukemia.
- **There are no known ways to prevent leukemia.**

### **What Is Lymphoma?**

Lymphoma is a group of cancers that begins in the lymphatic system. The function of the lymphatic system is to drain excess tissue fluid called lymph. The lymphatic system also contains blood cells known as lymphocytes, which are important in fighting infection. Lymphoma is the uncontrolled growth of lymphocytes.

### **What Are the Types of Lymphoma?**

- There are two types of lymphoma: **Hodgkin's** and **Non-Hodgkin's Lymphoma**.
- Hodgkin's Lymphoma is recognized by the presence of special cells that can be seen under the microscope, called the Reed-Sternberg cell. Only 12.5% of all lymphomas are the Hodgkin's type.
- Non-Hodgkin's Lymphoma is the most common type of lymphoma and is divided into many groups of lymphatic cancers. There are many different types of Non-Hodgkin's Lymphoma.

### **What Are the Key Statistics About Lymphoma?**

- In the year 2011, about 75,190 people will be diagnosed with lymphoma. About 66,360 are expected to have the Non-Hodgkin's type and about 8,830 for the Hodgkin's type of lymphoma. Approximately 20,620 people will die of the disease this year.

### **What Are the Signs and Symptoms of Lymphoma?**

- A swelling of lymph nodes that does not cause pain. Lymph nodes are groups of cells found along the path of lymphatic vessels. They filter the lymphatic fluid and remove harmful substances. The most common sites of lymph node swellings are in the neck, armpit, groin, or the abdomen.

- General symptoms can include fever, sweating, fatigue, loss of appetite, and bony pain.
- **There are no known strategies to prevent lymphoma.**

### **What Are the Causes of Lymphoma?**

- In most cases, the cause of lymphoma remains unknown.
- Patients with HIV (Human Immunodeficiency Virus) have a higher risk of developing lymphoma.
- Stomach lymphoma can be caused by an infection in the stomach called Helicobacter Pylori. This infection is sometimes found in people that have stomach ulcers.

### **Where Can I Find Research Studies About Leukemia and Lymphoma?**

For information about nationwide cancer prevention or treatment trials, you can call the National Cancer Institute at 1-800-4 CANCER or visit the NCI Web site at [www.cancer.gov](http://www.cancer.gov).

### **Expert Advice From The Cancer Institute of New Jersey**

Dr. Dale Schaar is one of the doctors caring for Leukemia and Lymphoma patients at The Cancer Institute of New Jersey. He is also an Assistant Professor of Medicine. Here are his thoughts about Leukemia and Lymphoma:

“Leukemia and Lymphoma are among the few cancers that can be cured even when already widespread. Even so, new developments and treatments are being evaluated every day.”

### **Where Can I Find Further Information?**

The Resource and Learning Center  
732-235-9639  
[www.cinj.org/rlc](http://www.cinj.org/rlc)

Leukemia and Lymphoma Society  
(800) 955-4572  
<http://www.lls.org>

Lymphoma Research Foundation  
(800) 500-9976  
[www.lymphoma.org](http://www.lymphoma.org)

National Cancer Institute  
1-800-4-CANCER  
[www.cancer.gov](http://www.cancer.gov)

The American Cancer Society  
1-800-ACS-2345  
[www.cancer.org](http://www.cancer.org)