UNDERSTANDING NON-HODGKIN LYMPHOMA

There are two major types of lymphoma: Hodgkin lymphoma and non-Hodgkin lymphoma (NHL). NHL is the sixth most common cancer in men and the seventh most common in women; about 71,000 people in the United States are expected to be diagnosed with NHL in 2015. Read below for information about the causes, diagnosis, and treatment of NHL.

What is NHL?
Non-Hodgkin lymphoma (NHL) is a type of cancer that affects the lymphatic system. NHL is not just one disease, but is the term used for a diverse group of blood cancers that share a single characteristic: They arise from an injury to the DNA of a lymphocyte parent cell. The altered DNA in one lymphocyte produces a malignant transformation – leading to the uncontrolled growth of the lymphocyte. Accumulation of those cells results in the tumor masses found in the lymph nodes and other sites in the body.

NHL generally develops in the lymph nodes or in lymphatic tissue found in organs such as the stomach, intestines, or skin. In some cases, NHL involves bone marrow and blood.

How Does NHL Develop?
Doctors do not know why some cells become NHL cells and others do not. For most people who have NHL, there are no obvious reasons why they developed the disease. NHL usually starts with an abnormal change in a lymphocyte – a white cell in a lymph node or lymphoid tissue. It can start in one of three major types of lymphocytes:

- B lymphocytes (B cells), which produce antibodies to help combat infections
- T lymphocytes (T cells), which have several functions, including helping B lymphocytes make antibodies
- Natural killer (NK) cells, which attack virus-infected cells or tumor cells

Which Treatment Approach Is Right for You?
The goal of NHL treatment is to destroy as many lymphoma cells as possible to induce a complete remission (no trace of the disease). Patients who go into remission (no trace of the disease) are sometimes cured of the disease. Treatment can keep NHL in check for many years, even if tests show some lingering lymphoma cells (partial remission). Your doctor will let you know how often you need physical exams and blood tests to check your blood cell counts. Your hematologist/oncologist will screen you for cancer recurrence and the development of a secondary cancer.

Your doctor plans your treatment based on several factors, including:

- your disease subtype
- whether your disease is aggressive (fast-growing) or indolent (slow-growing)
- your disease stage and category
- whether the lymphoma is in areas of your body other than your lymph nodes
- your overall health and whether you have any conditions like heart disease, kidney disease, lung disease, diabetes, or anemia

NHL has many different subtypes. Follicular lymphoma and diffuse large-B-cell lymphoma are the most common types – together accounting for about 53 percent of cases.

As you develop a treatment plan with your doctor, be sure to discuss:

- the results you can expect from treatment
- potential long- and late-term side effects
- the possibility of participating in a clinical trial, where you’ll have access to advanced medical treatment that may be more beneficial to you than standard treatment

Types of Treatment
Doctors use several types of approaches and treatment combinations for NHL, depending on the subtype and stage of disease. Approaches can include:

- Chemotherapy and other drug therapy
- Radiation therapy, usually combined with chemotherapy
- Stem cell transplantation
- Watch-and-wait approach

Your doctor may suggest that you participate in a clinical trial. Clinical trials can involve therapy with new drugs and new drug combinations or new approaches to stem cell transplantation.

Follow-up Care
Once NHL is in remission, you will need to visit your doctor for regular follow-up care. He or she monitors your health and looks for signs that you may need more treatment. Some treatments can cause long-term effects or late effects. Not everyone suffers from long-term and late effects of treatment, but for some patients the effects can range from mild to severe. Your risk for developing long-term or late effects can be influenced by:

- your treatment type and duration
- your age at the time of treatment
- your gender
- your overall health

Your doctor will let you know how often you need physical exams and blood tests to check your blood cell counts. Your hematologist/oncologist will screen you for cancer recurrence and the development of a secondary cancer. This may include bone marrow tests to detect cancerous cells. If you continue to show no signs of NHL and long-term or late effects, your doctor may suggest longer periods between visits. Researchers are working to improve their understanding of long-term and late effects and create guidelines for follow-up care. If you would like to contribute to this important research, you can take part in a clinical trial that collects data on long-term and late effects.

Get Information and Support
The Leukemia & Lymphoma Society (LLS) is committed to providing information, resources and support to those with leukemia, Hodgkin and non-Hodgkin lymphoma, myeloma, myelodysplastic syndromes, and myeloproliferative neoplasms. LLS offers the most comprehensive array of services to patients and families touched by blood cancers, including:

- One-on-one support from LLS Information Specialists
- Financial assistance
- Patient education programs
- Discussion boards
- Weekly online chats
- Support groups
- Publications, drug listings, and more in the LLS Resource Center

Visit www.lls.org to access these and more resources.