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# Web Exclusive: Types of Non-Hodgkin Lymphoma

BY THE AMERICAN CANCER SOCIETY

Classifying non-Hodgkin lymphoma (NHL) can be confusing because there are so many types. The World Health Organization system is often used. It groups NHL by the appearance of the lymphoma cells, the chromosome features of the cells, and the presence of certain proteins on the cell surface.

### **Diffuse Large B-cell Lymphoma**

B-cell lymphomas make up most (about 85 percent) of NHL cases in the United States, and diffuse large B-cell lymphoma (DLBCL) is one of the more common types. The cells are fairly large when viewed under the microscope. DLBCL can affect any age group but occurs mostly in older people. Although this lymphoma usually starts in lymph nodes, it can grow in other areas such as the intestines, bone, and even the brain or spinal cord. This is a fast growing lymphoma, but it often responds well to treatment with chemotherapy. Overall, about 75 percent of people will have no signs of disease after initial treatment, and about half of all people with this lymphoma are cured with therapy.

### **Follicular Lymphoma**

About 1 out of 4 lymphomas in the United States are follicular lymphomas. The term follicular is used because the cells tend to grow in a circular, or nodular, pattern in lymph nodes. The average age for people with this lymphoma is about 60. Although it is usually not considered curable by standard treatment, this is often a very slow-growing lymphoma, and the five-year survival rate is around 60 to 70 percent. Often these lymphomas are not treated when they are first diagnosed if the patient has no symptoms of the disease. Over time, about a third of follicular lymphomas changes into a fast-growing diffuse B-cell lymphoma.

### **Chronic Lymphocytic Leukemia /Small Lymphocytic Lymphoma**

These related diseases account for about 1 out of 4 lymphomas. The same type of cell (known as a small lymphocyte) is involved in both chronic lymphocytic leukemia (CLL) and small lymphocytic leukemia (SLL). In CLL the cancer cells are mostly in the blood and bone marrow; in SLL, they are mainly in the lymph nodes. Both are slow-growing diseases, although CLL, which is much more common, tends to grow slower. They are not considered curable with standard treatments, but depending on the stage and growth rate of the disease, most patients can live longer than 10 years. Occasionally over time, these slow-growing lymphomas transform into a more aggressive type of lymphoma.

## **Mantle Cell Lymphoma**

Only about 5 percent of lymphomas are of this type. Men are affected most often. The average age of patients is in the early 60s. Although this isn't a very fast growing lymphoma, it is hard to treat. Newer, more aggressive treatments may be more effective than those used in the past, which may help improve the survival rates of patients now being diagnosed.

## **Marginal Zone B-cell Lymphomas**

Marginal zone lymphomas account for about 4 percent of lymphomas. The cells in these lymphomas look small under the microscope. There are three main types of marginal zone lymphomas: extranodal marginal zone B-cell lymphomas, nodal marginal zone B-cell lymphomas, and splenic marginal zone B-cell lymphomas.

Extranodal marginal zone B-cell lymphomas, also known as mucosa-associated lymphoid tissue (MALT) lymphomas start in places other than the lymph nodes and are the most common type. Most MALT lymphomas start in the stomach and are thought to be related to an infection by the bacteria *Helicobacter pylori*. MALT is a slow-growing lymphoma and is often curable in its early stages. Doctors often use antibiotics as the first treatment for this type of lymphoma, especially MALT lymphoma of the stomach, as they may get rid of the infection. Nodal marginal zone B-cell lymphoma and splenic marginal zone B-cell lymphoma are rare diseases and tend to be slow-growing.

## **Primary Mediastinal B-cell Lymphoma**

This type accounts for about 2 percent of all lymphomas and primarily affects young adults. The cells are large and resemble those of diffuse large B-cell lymphomas. This lymphoma starts in the area around the heart and behind the chest bone. It can cause trouble breathing because it often presses on the trachea leading into the lungs. It can also block the large vein that returns blood to the heart from the arms and head, which can cause the arms and face to swell. It is a fast growing lymphoma but it is treatable.

## **Burkitt Lymphoma**

This type makes up about 1 to 2 percent of all lymphomas. Nearly all patients are male, and the average age is about 30. Although this is a fast-growing lymphoma, over half of patients can be cured by intensive chemotherapy.

## **Waldenström Macroglobulinemia**

This type is not common. The cells are small and found mainly in the bone marrow, lymph nodes, and spleen. Most of the time the lymphoma cells make an antibody called immunoglobulin M, which is a very large protein. This antibody circulates in the blood in large amounts, and causes the liquid part of the blood to thicken. This can lead to decreased blood flow to many organs, feeling tired and weak, and a tendency to bleed easily. This lymphoma is slow growing. Although it isn't usually considered to be curable, most patients live longer than 5 years.

## **T-Cell Lymphomas**

T-cell lymphomas represent less than 15 percent of non-Hodgkin lymphomas in

the United States. The most common type of T-cell lymphoma is peripheral T-cell lymphoma, which accounts for about 5 percent of all lymphomas. There are several types of peripheral T-cell lymphoma.

- > Cutaneous T-cell lymphomas (mycosis fungoides, Sezary syndrome) start in the skin.
- > Angioimmunoblastic T-cell lymphoma tends to occur in the lymph nodes and may affect the spleen or liver. This lymphoma often progresses quickly, although some patients get better with cortisone-like drugs and/or chemotherapy.
- > Extranodal natural killer/T-cell lymphoma, nasal type often involves the upper airway passages, such as the nose and upper throat, but it can also invade the skin and digestive tract.
- > Enteropathy type T-cell lymphoma occurs in people with sensitivity to gluten, the main protein in wheat flour.
- > Subcutaneous panniculitis-like T-cell lymphoma invades the deep layers of the skin, where it causes nodules to form.
- > Anaplastic large cell lymphoma usually starts in lymph nodes and can also spread to skin. There is also a form that begins in the skin. Although this type of lymphoma appears to be fast-growing, chemotherapy often works well.
- > Unspecified peripheral T-cell lymphomas are types of peripheral T-cell lymphomas that don't readily fit into any of the other groups.

*Adapted with permission of the [American Cancer Society](#).*