

HOW MANY TYPES?

In **Hodgkin's disease**, the abnormal lymphocyte is the Reed-Sternberg cell, which isn't found in other types of lymphomas.

All other types of lymphomas are called **non-Hodgkin's (NHL)**.

There are about 40 types!

... classified sometimes by grade:

Aggressive grade (fast growing) and **indolent** grade (slow growing)

The most common type is aggressive **diffuse large b-cell lymphoma**.

Second most common is indolent **follicular b-cell lymphoma**

WHAT TREATMENTS?

Treatment type depends on **type**, **stage**, and **grade** of disease, most commonly chemo- and radio-therapy, but also biologic and immunotherapy.

The **treatment approach** may be to **manage** the disease (monitor and treat as needed), or to treat with **curative intent**.

The **stage of lymphoma at diagnosis** is often widespread, but can be treated effectively: cured or managed even when advanced.

Lymphomas are particularly sensitive and responsive to chemotherapy, radiotherapies, and biological therapies.

Treatment is usually systemic (infused into the blood), unless caught early when it can be treated locally with radiotherapy with curative intent.

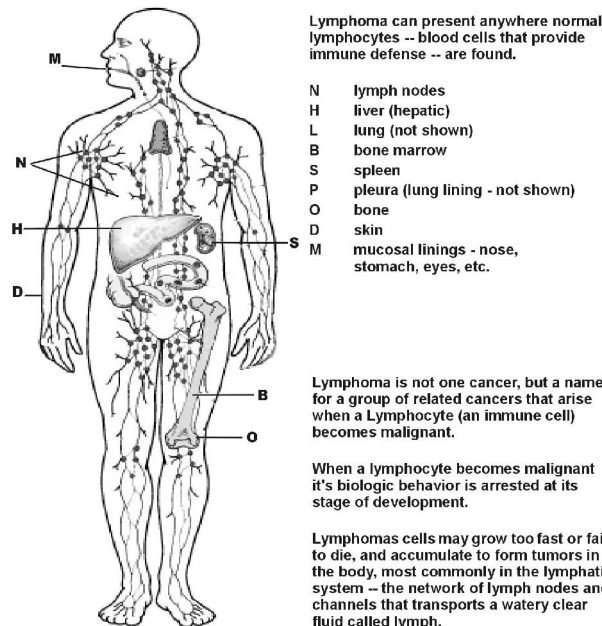
The type of Non-Hodgkins Lymphomas (NHL) is determined by the cell of origin:

B-cell types: (85%)

Diffuse large B-cell, Follicular, Mantle cell, Lymphoplasmacytic, Burkitt's lymphoma, Primary mediastinal large B-cell, Extranodal marginal zone B-cell, Nodal marginal zone B-cell, CLL
CNS- and HIV-associated lymphomas

T-cell types: (15%)

Peripheral, Angioimmunoblastic, Anaplastic large cell, Hepatosplenic, Subcutaneous panniculitis-like, Enteropathy type, Extranodal, Natural Killer, Nasal type, Skin (cutaneous) – including Mycosis fungoides/Sézary syndrome.



Lymphoma Awareness Day

is September 15



Patients Against Lymphoma

Providing evidence-based resources on lymphoma and its treatments – independent of health industry funding

Lymphomation.org

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How to Help?



donate to PAL

Donate Your Used Vehicle?
1-877-227-7487 Extension 1058
(Have title with you)

Patients Against Lymphoma
3774 Buckwampum Road
Riegelsville, PA 18077

Phone: 610-346-8419 | Fax: 801-409-5736

Support@Lymphomation.org

PAL is a 501 (c) (3) non-profit organization

WHAT IS LYMPHOMA?

Lymphomas are a family of **blood cancers** affecting **lymphocytes** – white blood cells that normally protects us from illness.

The abnormal lymphocytes, having survival and growth advantages over normal blood cells, can accumulate to form **tumors**, often in the lymph nodes, but also in the bone marrow and other parts of the body.

WHAT IS CANCER?

Simply, cancer cells have defects, most commonly in genetic codes or gene expression that give the cells *growth and survival advantages* over normal cells.

The hallmarks of cancer cells include:

- Clonal population of cells with limitless potential to divide and grow
- Resisting cell death (resisting apoptosis - normal programmed cell death)
- Inhibition of immunity against abnormal protein expression in the tumor cells
- Development of a sustaining blood supply (angiogenesis)
- Self sufficiency in growth signals
- Insensitive to anti-growth signals
- Metastasis (spreading beyond the organ of origin)

RISK FACTORS?

The causes are not known. Risk factors *associated* with lymphomas include:

- Immune suppression
- Persistent inflammation / chronic infection
- Aging
- Environmental carcinogens – Atrazine, nitrates, fertilizers, PCBs and other chemicals are suspected

SYMPTOMS?

The symptoms vary by type and locations of the tumors.

Some common symptoms, which can often have other causes, include:

- Painless and persistent lumps in the neck, armpit and groin
- Drenching (change the sheets) night sweats
- Unexplained persistent fever
- Unexplained weight loss
- Red skin patches
- Chronic fatigue
- Low blood cell counts

Only a biopsy of sample tissue is diagnostic.

ANYONE WE KNOW?

Reflecting the high prevalence of lymphoma: Dick Gregory, King Hussein of Jordan, Charles A. Lindbergh, Roger Maris, Jackie Kennedy Onassis, Joey Ramone, Senator Fred Thompson, Paul E. Tsongas, Gene Wilder ...

HOW COMMON?

Our **lifetime risk** is approximately **1 in 50**.

Lymphomas are **more common than leukemias**. SEER provides age-adjusted incidence rates as follows:

Leukemias: 12.3 per 100,000 per year

Lymphomas: 22.0 per 100,000 per year

"Approximately **71,380** were diagnosed and **19,730** died of lymphoma in 2007" ...

among these ~**1,070** died of Hodgkins lymphoma (5%).

6% of childhood cancers are lymphomas

TRENDS: Incidence rate has increased ~**4% annually** in the United States since 1970. SEER QuickStats:

