

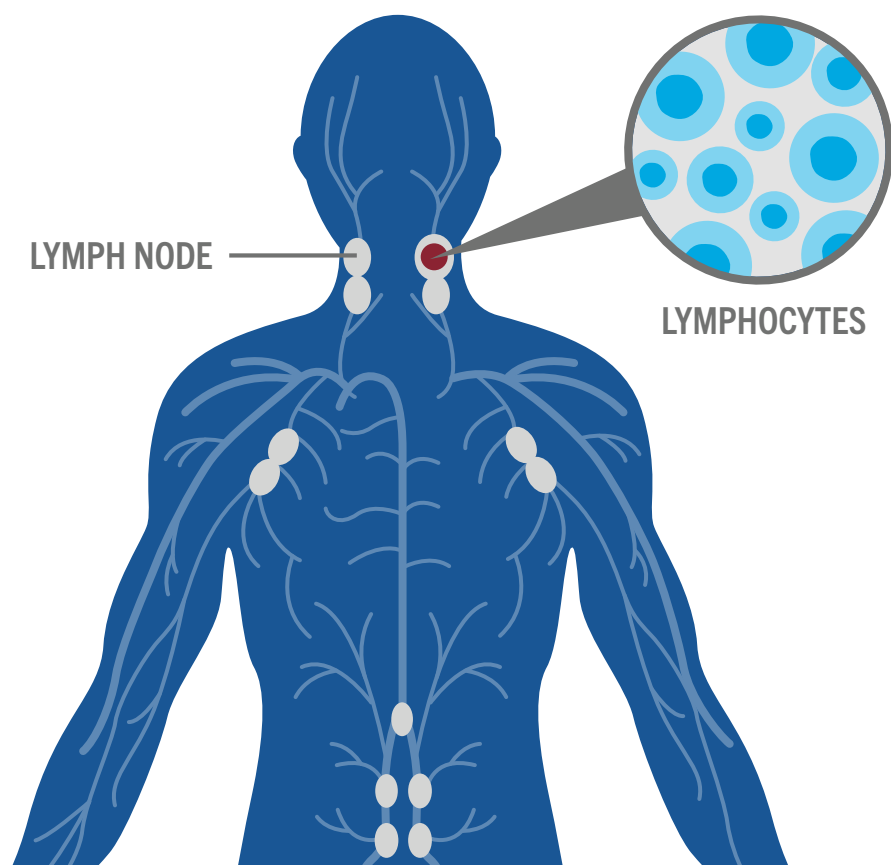
# NON-HODGKIN'S LYMPHOMA

*Non-Hodgkin's lymphoma, or NHL, is a disease in which malignant (cancerous) cells form in the **lymph system**, which is part of the immune system.<sup>1</sup> It is one of the **most common** blood cancers among adults in the U.S.<sup>2</sup>*

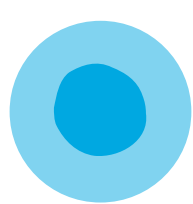
## HOW NHL STARTS

*NHL occurs when too many **abnormal lymphocytes**, a type of white blood cell, are produced.<sup>3</sup>*

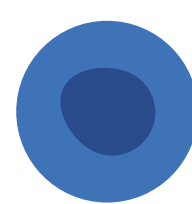
Normally, old lymphocytes die, and the body creates new ones to replace them. But for NHL these lymphocytes don't die, but **continue to grow and divide**. This oversupply of lymphocytes crowds into lymph nodes, causing them to swell.<sup>3</sup>



**85%** of NHL cases start in lymphocytes called **B-CELLS**,<sup>4</sup> and



a small percentage of cases start in lymphocytes called **T-CELLS**.<sup>4</sup>



## NHL BY THE NUMBERS

**60+**  
DIFFERENT  
TYPES<sup>5</sup>

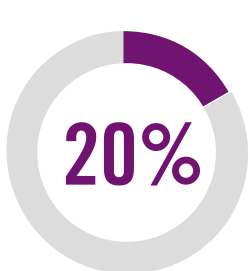
ESTIMATED  
**71,850**  
NEW CASES IN THE  
U.S. IN 2015<sup>6</sup>

**66**  
MEDIAN AGE  
AT DIAGNOSIS<sup>6</sup>

## CATEGORIES OF NHL

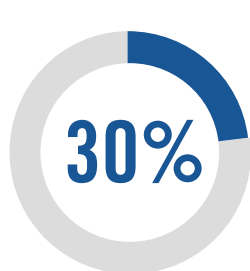
*NHL is grouped into two categories based on growth rate: **indolent** (slow-growing) and **aggressive** (fast-growing).<sup>1</sup>*

**FOLLICULAR LYMPHOMA**,  
or FL, is the most common  
type of **indolent** NHL<sup>7</sup>



OF NEW NHL CASES<sup>7</sup>

**DIFFUSE LARGE B-CELL LYMPHOMA**  
or DLBCL, is the most common  
type of **aggressive** NHL<sup>7</sup>

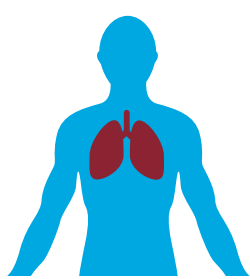


OF NEW NHL CASES<sup>7</sup>

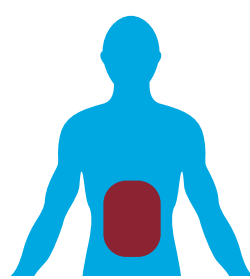
## SIGNS AND SYMPTOMS OF NHL<sup>3,8</sup>

*The most common symptom is **swollen lymph nodes**, which can often be felt as lumps under the skin.*

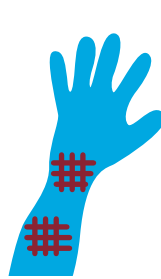
Other symptoms include:



CHEST PAIN, COUGHING  
OR TROUBLE BREATHING



ABDOMINAL PAIN  
OR SWELLING



ITCHING



NIGHT SWEATS



FATIGUE



UNEXPLAINED  
WEIGHT LOSS



INTERMITTENT  
FEVER

## TREATMENT OF NHL<sup>1,7</sup>

*Treatment approach is dependent on a variety of factors, including the type of NHL, growth rate and stage.*

### FOR INDOLENT NHL:

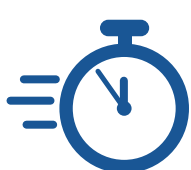


Doctors may recommend a **"watch and wait"** or observational approach **until disease progression** for some people who do not show any symptoms.<sup>7</sup>



This form of NHL is considered **incurable** and relapse is common. A goal of treatment is controlling the disease.<sup>9</sup>

### FOR AGGRESSIVE NHL:

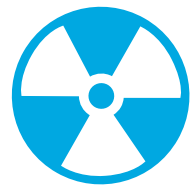


Doctors typically **begin treatment immediately** without an observational period.<sup>7</sup>



For most patients a goal is a **cure**, or controlling the disease if it does return.<sup>10,11</sup>

### TREATMENT OPTIONS INCLUDE:



RADIATION



CHEMOTHERAPY



BONE MARROW  
TRANSPLANT &  
STEM CELL  
TRANSPLANT



MONOCLONAL  
ANTIBODIES  
AND OTHER  
IMMUNOTHERAPIES



TARGETED  
AGENTS

**References:** **1** National Cancer Institute. Adult Non-Hodgkin Lymphoma Treatment (PDQ®). <http://www.cancer.gov/types/lymphoma/patient/adult-nhl-treatment-pdq>. Accessed September 1, 2015. **2** National Cancer Institute. A Snapshot of Lymphoma. <http://www.cancer.gov/research/progress/snapshots/lymphoma>. Accessed September 1, 2015. **3** National Cancer Institute. What You Need to Know About Non-Hodgkin Lymphoma. <http://www.cancer.gov/publications/patient-education/non-hodgkin-lymphoma.pdf>. Accessed September 1, 2015. **4** Harris N.L., Stein H., Coupland S.E., et al. New approaches to lymphoma diagnosis. *Haematology* January 1, 2001; DOI: 10.1182/asheducation-2001.1.194. **5** Swerdlow S.H., Campo E., Harris N.L., Jaffe E.S., Pileri S.A., Stein H., Thiele J., Vardiman J.W. (Eds.): WHO Classification of Tumors of Haematopoietic and Lymphoid Tissues. IARC: Lyon 2008. **6** National Cancer Institute. SEER Cancer Statistics Factsheets: Non-Hodgkin Lymphoma. <http://seer.cancer.gov/statfacts/html/nhl.html>. Accessed September 1, 2015. **7** National Cancer Institute. Adult Non-Hodgkin Lymphoma Treatment – for health professionals (PDQ®). <http://www.cancer.gov/types/lymphoma/hp/adult-nhl-treatment-pdq#section/all>. Accessed September 1, 2015. **8** Evans L.S., Hancock B.W. Non hodgkin lymphoma. *The Lancet*. July 12, 2013; DOI: 10.1016/S0140-6736(03)13868-8. **9** Ghielmini, M., Follicular Lymphoma. *Ann Oncol*. October 2010;DOI:10.1093/annonc/mdq287. **10** Morrison et al., Approach to therapy of diffuse large B-cell lymphoma in the elderly: the International Society of Geriatric Oncology (SIOG) expert position commentary. *Annals of Oncology*. February 24, 2015; DOI:10.1093/annonc/mdv018. **11** Shipp, M. et. al., A Predictive Model for Aggressive Non-Hodgkin's Lymphoma: The International Non-Hodgkin's Lymphoma Prognostic Factors Project. *N Engl J Med*. September 30, 1993; DOI: 10.1056/NEJM199309303291402.