



Diffuse Large B-Cell Lymphoma

Diffuse large B-cell lymphoma is the most common form of non-Hodgkin lymphoma.

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What you need to know

You or your loved one has been diagnosed with diffuse large B-cell lymphoma (DLBCL). What does it mean, and how will it affect you?

This fact sheet will help you:

- Learn about DLBCL and how it is diagnosed
- Get an overview of treatment options
- Understand what happens next

What is lymphoma?

Lymphoma is the name for a group of blood cancers that develop in your lymphatic system. The two main types are Hodgkin lymphoma and non-Hodgkin lymphoma. DLBCL is a type of non-Hodgkin lymphoma (NHL).

About DLBCL

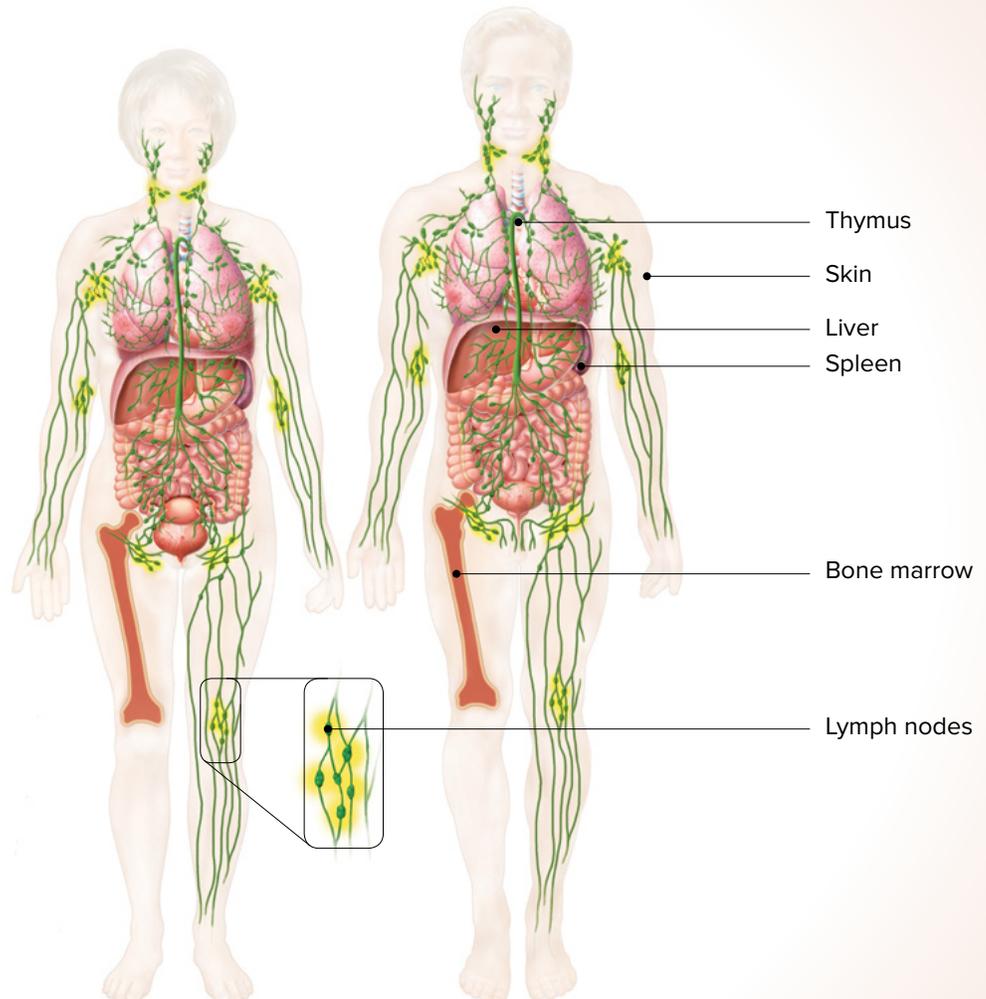
- Involves the B-cells that help to fight off infection
- Can grow quickly (aggressive) or slowly (indolent)
- Can happen at any age but most often appears in middle age or older
- Usually has no known cause

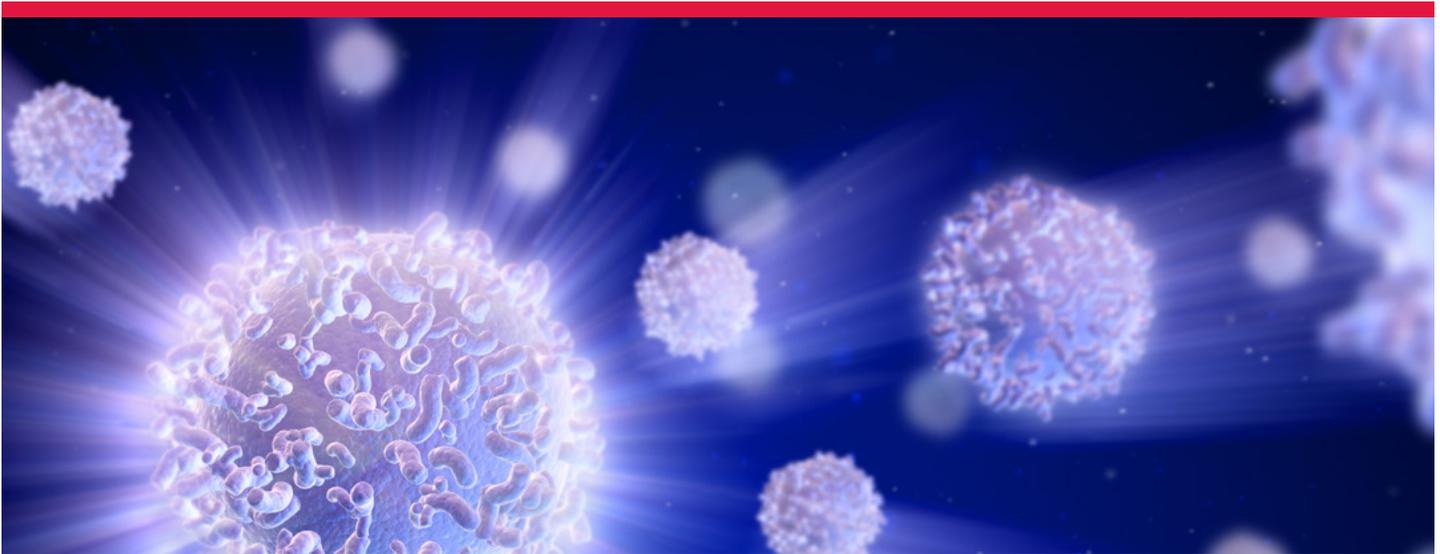
Signs and symptoms

The signs and symptoms of DLBCL can be similar to other less serious diseases. Some people have no symptoms, and their disease is uncovered during a routine medical examination. You may experience:

- Large masses in the neck or abdomen and/or painless swelling in one or more lymph nodes
 - When your lymph nodes are enlarged or swollen
- Fevers and drenching night sweats
 - Possibly a response from your immune system
- Ongoing fatigue, loss of appetite, pain in the abdomen
 - If your DLBCL is in the stomach or bowel
- Cough or chest pain
 - When your DLBCL is in the chest
- Itchy skin, rash, or skin lumps
 - This is a response of your immune system
- Weight loss of 10% or more
 - When you are eating less or using more energy

Your **lymphatic system** includes your bone marrow, lymph nodes, thymus, liver, skin, and spleen. This system defends your body against infection by creating white blood cells called lymphocytes. If these cells become abnormal, you may develop lymphoma.





After your diagnosis

With your diagnosis, your doctor can determine the right treatment for you. Your test results help your doctor

predict how DLBCL will likely progress and how you may respond to treatment.

Name of test	Description
Blood tests	Blood tests help determine your need for treatment and the extent of your disease. They also help identify several non-Hodgkin lymphoma (NHL) subtypes.
Bone marrow biopsy	A bone marrow biopsy will confirm whether the lymphoma has spread to your bone marrow and determine the benefit of specific therapies.
Cytogenetic analysis	This test looks for changes in chromosomes to help identify your NHL subtype.
Flow cytometry	During this test, examiners take cells from your blood or tissue biopsy to detect which proteins or markers (antigens) are in your lymphoma cells.
Gene expression profiling	This test identifies your subtype and risk factors. It helps predict how you will respond to treatment and identifies an increased risk of relapse.
Heart tests	Heart tests assess how well your heart is working before and after starting a treatment. This may include an echocardiogram, which creates a picture of your heart.
Immunophenotyping	This test helps find specific types of cells within a blood sample to confirm an NHL diagnosis and identify the lymphoma cells as B-cells, T-cells, or natural killer cells.

Stages of DLBCL

Identifying the stage of your disease is an important step to planning your treatment. The stage of lymphoma refers to where your disease is located. **It does not determine how well you will respond to treatment.**

Your doctor will determine the stage of your disease using imaging, lab tests, and physical examination. This helps figure out:

- Which lymph nodes are larger than normal
- Whether your disease affects organs other than your lymph nodes
- If you have large masses of tumours

Stages

- **Stage I** involves one group of lymph nodes.
- **Stage II** involves two or more groups of lymph nodes on the same side of your diaphragm.
- **Stage III** involves groups of lymph nodes on both sides of your diaphragm.
- **Stage IV** involves one or more organs that are not part of a lymphatic area and/or your lymph nodes. Or it may involve the liver, bone marrow, cerebrospinal fluid, or lungs.

Categories

- **Category E** means your lymphoma has spread to areas or organs outside of your lymph nodes or to tissues beyond, but near, your major lymphatic areas.
- **Category S** means your testing has found lymphoma in your spleen.
- **Category X** means your testing has shown large masses of lymphocytes (Bulky disease).

Example

A diagnosis of **Stage IIIS** means your disease involves lymph node groups on both sides of your diaphragm as well as your spleen.

DLBCL treatment

Your treatment is focused on destroying as many lymphoma cells as possible. When you no longer have evidence of lymphoma cells in your body, you are said to be **in remission**. Your treatment may result in **partial remission**, meaning that your tests still show evidence of DLBCL. It is possible for DLBCL to remain in check for many years.

Types of treatment

- **Chemotherapy** uses medicine (chemicals) to kill cancer cells.
- **Radiation therapy** uses x-rays or other high-energy rays. Radiation may be done in addition to chemotherapy.
- **Stem cell transplant (bone marrow transplant)** uses your own stem cells to slow the growth of your disease.
- **CAR T-cell therapy** is a new third line treatment that uses your own immune cells (T-cells) to detect and kill cancer cells.

Factors that affect treatment

Discuss your treatment options with your doctor to make sure you understand the benefits and risks of each approach. Your treatment plan is based on:

- Age and overall health status
- DLBCL subtype
- Decisions about treatment
- Fertility, if applicable
- Potential long-term and late effects
- Stage and category
- Symptoms

Treatment side effects

When you begin your treatment for DLBCL, you may experience mild to severe side effects, depending on your age, your overall health, and your treatment plan. Most side effects disappear once your treatment ends. New drugs and therapies can help control side effects, such as nausea and vomiting. Speak to your doctor if you are experiencing side effects.

Common side effects

You may experience side effects such as:

- Nausea, diarrhea, vomiting, and temporary hair loss from your chemotherapy and/or radiation treatments
- Infection from a decrease in white blood cells that can cause side effects such as fever or chills, coughing, sore throat, frequent/loose bowel movements, mouth sores, hair loss, rashes, and nausea
- Neuropathy, which is nerve damage from treatment that can make your fingers and toes feel numb or tingle
- Tumour Lysis Syndrome (TLS) when many cancer cells die quickly; TLS changes your metabolism and can lead to other health complications

Long-term or late effects of treatment

Medical follow-up is important after treatment for DLBCL. You may need blood tests, bone marrow tests, or molecular tests to determine if you need treatment. Your medical team should provide you with a care plan listing the frequency of follow-up visits and the tests you will have at those visits.

- **Long-term side effects** are common and can last for months or years after treatment ends. One example is fatigue.
- **Late effects** are medical problems that do not show up until years after treatment ends. See your doctor to get follow-up care for possible early detection of heart disease, secondary cancers, fertility issues, thyroid problems, trouble concentrating, and chronic fatigue.

Seek medical help if you feel “down” or “blue” or don’t want to do anything – and your mood does not improve over time. These could be signs of depression, an illness that should be treated even when you’re undergoing treatment for DLBCL. Treatment for depression has important benefits for people living with cancer.

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