

FACT SHEET

Diffuse Large B-cell Lymphoma



About us

The Leukaemia Foundation is the only national not-for-profit organisation dedicated to the care and cure of patients and families living with leukaemia, lymphoma, myeloma and related blood disorders.

We invest millions of dollars in the work of Australia's leading researchers to develop better treatments and cures and provide free services to support patients and their families.

We receive no ongoing government funding. We rely on the generosity of the community and corporate sector to further our Vision to Cure and Mission to Care.

We can help you

Our range of free services supports thousands of Australians, from diagnosis, through treatment and beyond. To learn more, please call 1800 620 420 to speak with one of our Support Services team.

You can help us

There are many ways that you can help us to improve the quality of life for people with blood cancer. From making a donation, to signing up for an event; from volunteering, or joining us as a corporate sponsor - please call 1800 500 088 or go to www.leukaemia.org.au to learn more.

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Diffuse large B-cell lymphoma (DLBCL) is an aggressive type of non-Hodgkin lymphoma that develops from the B-cells in the lymphatic system. Under the microscope, large malignant lymphocytes are seen diffusely throughout the specimen.

DLBCL is the most common subtype of non-Hodgkin lymphoma accounting for 30%-40% of all cases. There are several types of DLBCL, with most people being diagnosed with the subtype known as DLBCL 'not otherwise specified'. The rarer types are detailed overleaf.

How does Diffuse Large B-cell lymphoma affect the body?

Often the first symptom of DLBCL is a painless swelling in the neck, armpit or groin that is caused by enlarged lymph nodes. These lumps can grow quite quickly, often over a period of a few weeks. Sometimes, other parts of the body are also affected. This is known as 'extranodal' disease because it is happening outside of the lymph nodes, and includes the stomach or bowel being affected, which may cause abdominal discomfort or pain, diarrhoea or bleeding. DLBCL can also be found in many other areas including the salivary glands, nasal sinuses, liver, lungs, testes, skin, brain or eye with symptoms being directly related to the amount of pressure the lymphoma is putting on the particular body part that is affected. Other general symptoms experienced by people with DLBCL include fevers, night sweats and unexplained weight loss.

Who does Diffuse Large B-cell lymphoma commonly affect?

DLBCL can occur at any age, but is most common in people aged over 50 years. The average age of diagnosis is 60-65 years; however, DLBCL can also affect children. It is slightly more common in men than in women. It is not due to infection and cannot be passed from one person to another. DLBCL may develop independently or in some instances may develop in people who have been diagnosed with a low-grade lymphoma in the past (i.e. low-grade lymphoma can *transform* to DLBCL).

Do we know what causes Diffuse Large B-cell lymphoma?

Whilst the exact causes of DLBCL are unknown, people who have a compromised immune system may be more susceptible to developing DLBCL. This may include people who have previously been treated for other forms of cancer including a low-grade lymphoma, or people who have an autoimmune disorder.

How is Diffuse Large B-cell lymphoma treated?

DLBCL is high-grade (fast-growing) and needs to be treated quickly. The current standard treatment is rituximab plus CHOP* chemotherapy (R-CHOP*). This treatment usually continues for approximately 4 months. Other therapies include radiation, stem cell transplants and other chemotherapy. If the DLBCL relapses after initial treatment, chemotherapy regimens that can be used include ICE* and DHAP*. If the DLBCL has infiltrated the cerebrospinal fluid, methotrexate chemotherapy can be given directly into the spinal cord. DLBCL is very responsive to treatment with a large percentage of people being cured.

*See over for a list of the drugs that make up these regimens

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Types of Diffuse Large B-cell lymphoma

- **Primary mediastinal large B-cell lymphoma:** accounts for 2-4% of all non-Hodgkin lymphomas. Can occur at any time from early adulthood, but is most common between 25-40 years of age. It is twice as common in women as in men. Develops in the mediastinum and can cause problems due to the pressure of the mass on the lungs or gut, or on the superior vena cava (the second largest vein in the body which returns blood from the upper half of the body to the heart). Symptoms include breathlessness, persistent cough, difficulty swallowing (dysphagia), swelling of the neck and face, dizziness and headaches. Treatment involves the use of R-CHOP often followed by radiotherapy or high-dose chemotherapy regimens. Stem cell transplants may be offered if this type of lymphoma relapses.
- **T-cell/histiocyte-rich large B-cell lymphoma:** more common in men aged over 50 years but can affect people of any age. Fewer than 10% of people with DLBCL will have this type. This type of DLBCL has all three types of cells present- T-cells, histiocytes and large B-cells, when viewing a biopsy specimen under the microscope. Symptoms include swollen lymph nodes, fever and swelling of the liver or spleen. People with this type of DLBCL will feel generally unwell and have abdominal swelling and discomfort. Treatment is similar to that of the more common types of DLBCL (such as CHOP chemotherapy with rituximab). If it relapses, the other high-dose chemotherapy regimens mentioned below may be used. Stem cell transplantation may also be an option for some people.
- **Intravascular large B-cell lymphoma:** extremely rare form of lymphoma. Occurs in adults with the average age at diagnosis being 65 years. Malignant lymphocytes are found within small blood vessels meaning it could affect just about any part of the body, although it is rare to find it in the bone marrow or lymph nodes. Symptoms vary depending on which small blood vessels are affected, but 75% of people with this form of DLBCL experience stroke-like symptoms; for example, weakness, numbness or paralysis in the face, arm or legs on either or both sides of the body, difficulty speaking or understanding, dizziness, loss of balance or unexplained falls, changes in vision, severe headaches, and difficulty swallowing. These symptoms are a result of the impact of the lymphoma on the nervous system. Some people may also develop patches of inflamed skin across their body or experience fevers, night sweats and unexplained weight loss. Intravascular large B-cell lymphoma is often treated with R-CHOP and/or more aggressive therapies if suitable for that particular person.

TERMS

R: rituximab

CHOP: cyclophosphamide, doxorubicin (or hydroxydaunorubicin), vincristine (Oncovin®) and prednisolone

ICE: ifosfamide, carboplatin and etoposide

DHAP: dexamethasone, cytarabine, (sometimes referred to as Ara-C) and cisplatin which contains platinum

The Leukaemia Foundation publishes the guide: *'Understanding Non-Hodgkin Lymphoma. A guide for patients & families'*.

For more information, freecall 1800 620 420
email info@leukaemia.org.au or visit www.leukaemia.org.au