

Grey zone, double-hit, triple-hit, and high-grade B-cell lymphomas, not otherwise specified (NOS)

This information page is about rare types of high-grade B-cell lymphoma that are difficult to classify: grey zone lymphoma, double-hit and triple-hit lymphoma, and high-grade B-cell lymphoma, not otherwise specified (NOS).

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What types of high-grade B-cell lymphomas are difficult to classify?

There are lots of different **types of lymphoma**. The tests you have when you are diagnosed help your medical team find out which type of lymphoma you have. This is called 'classifying' your lymphoma.

Your medical team might need to carry out more specialised tests on your **biopsy** (sample from your lymphoma) if it is difficult to classify. This can mean it takes longer to get the results of your tests. It is important that your medical team know which type of lymphoma you have so they can give you the best treatment.

Sometimes a lymphoma has features of more than one type of lymphoma, which makes it difficult to classify, for example:

- **grey zone lymphoma**
 - some **double-hit and triple-hit lymphomas**
 - **high-grade B-cell lymphomas, not otherwise specified (NOS)**.
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Grey zone lymphoma

Rarely, a lymphoma has features of both **classical Hodgkin lymphoma** and **diffuse large B-cell lymphoma (DLBCL)**, usually a type of DLBCL called '**primary mediastinal B-cell lymphoma (PMBL)**'. When the lymphoma has features of both types of lymphoma, it is sometimes referred to as 'grey zone lymphoma'. It might also be called 'B-cell lymphoma, unclassifiable, with features intermediate between diffuse large B-cell lymphoma and classical Hodgkin lymphoma.'

Grey zone lymphoma can occur at any age but usually affects people aged 20–40. Men are affected more often than women.

Grey zone lymphoma usually starts in an area called the mediastinum, which is in the centre of the chest. Most people with grey zone lymphoma develop a large mass of lymphoma in this area. The mass can press on surrounding organs like the lungs. This can cause symptoms like breathing problems. The lymphoma can start in other areas, too.

Double-hit and triple-hit lymphoma

A high-grade B-cell lymphoma with more than one major lymphoma-related genetic change in the lymphoma cells might be called:

- ‘double-hit’ lymphoma (two major changes), or
- ‘triple-hit’ lymphoma (three major changes).

Some double-hit and triple-hit lymphomas are a type of DLBCL. Others have features of both **Burkitt lymphoma** and DLBCL and are unclassifiable into a specific type of high-grade B-cell lymphoma.

Double-hit and triple-hit lymphomas often start in extranodal sites (outside the lymph nodes). Symptoms vary, depending on exactly where the lymphoma starts.

Double-hit and triple-hit lymphomas seem to behave more aggressively than the more common types of DLBCL and may need more intensive treatment.

High-grade B-cell lymphoma, not otherwise specified (NOS)

Other types of lymphoma can develop that have features of more than one type, eg Burkitt lymphoma and DLBCL. If it can't be grouped as another type of lymphoma, your lymphoma might be classified as high-grade B-cell lymphoma, not otherwise specified (NOS). Lymphomas in this group can behave differently to each other but they do not fit into any of the other more defined types of lymphoma.

Treatment

There is no standard treatment for grey zone lymphoma, double-hit or triple-hit lymphoma or high-grade B-cell lymphoma, NOS. Because these

Lymphomas are rare, it may take time to find out what treatment will work best.

Most people with grey zone lymphoma or high-grade B-cell lymphoma NOS have the same **treatment** used for **DLBCL** or PMBL. If your doctor thinks your lymphoma is more likely to behave like **Burkitt lymphoma** or **classical Hodgkin lymphoma**, instead, they might suggest the treatments commonly used for these types of lymphoma. You might be offered an intensive treatment if your lymphoma has features that suggest it may be difficult to treat.

Double-hit and triple-hit lymphoma can be difficult to treat and have higher relapse rates (the lymphoma coming back) than more common types of DLBCL. If you are fit enough, your doctor might suggest intensive chemo-immunotherapy (**chemotherapy** with **antibody therapy**). Some people might be offered a **stem cell transplant** after successful treatment. Stem cell transplants may reduce the risk of relapse.

Some people might be offered treatment as part of a clinical trial. Some clinical trials aim to find out which existing treatment regimen (combination of drugs) works best for these rare lymphomas. Other clinical trials test newer drugs and new combinations of treatments to find out if they are effective. Find out more about clinical trials and search for a trial that might be suitable for you at [Lymphoma TrialsLink](#).

Finding information

It can be difficult to find relevant information if your lymphoma does not fit into any of the more usual types. You might find it helpful to read information on the type of lymphoma it most closely resembles. Ask your doctor for advice on what information is most relevant for you. They can advise you based on your individual circumstances.



I had Googled my type of lymphoma and had lots of questions for the doctors there. My consultant explained that there had not been many studies done in this type of lymphoma yet, and that information on it on the internet might well just be discouraging and unhelpful. The conversation with him was reassuring – he explained my condition and filled me with a lot more confidence

– Kat, diagnosed with double-hit lymphoma with features of DLBCL and Burkitt lymphoma at 32.

References

These are some of the sources we used to prepare this information. The full list of sources is available on request. Please contact us by email

at publications@lymphoma-action.org.uk or phone on **01296 619409** if you would like a copy.

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Further reading

- [Diffuse large B-cell lymphoma](#)
- [Burkitt lymphoma](#)
- [Classical Hodgkin lymphoma](#)
- [What is lymphoma?](#)
- [Glossary](#)
- [Treatment for lymphoma](#)

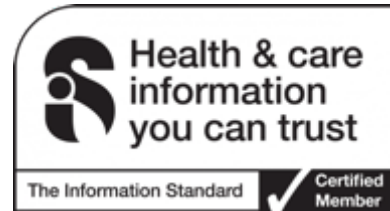
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