CONDITION

Lymph node cancer

Lymph node cancer means cancer that starts in lymphocytes or spreads into lymph nodes from another part of the body.

WHAT IT IS
Cancer starting in or spreading to lymph nodes

BODY SYSTEM
Lymphatic and immune systems

MAIN SYMPTOMS
Painless swelling, fever, drenching night sweats, unexplained weight loss

WHAT CAUSES IT
DNA changes; some infections and immune conditions contribute

HOW IT IS DIAGNOSED
Lymph node biopsy with laboratory testing

MAIN TREATMENT
Chemotherapy, immunotherapy, radiotherapy, surgery, or monitoring

CAN IT BE CURED?
Sometimes - type, spread, and treatment response

IS IT AN EMERGENCY?
Sometimes - breathing difficulty or new limb weakness

LONG-TERM OUTLOOK
Some are curable; advanced cancers may shorten life

Overview

"Lymph node cancer" is a general term rather than one specific diagnosis. It can mean lymphoma, which begins in white blood cells called lymphocytes. It can also mean cancer that started elsewhere and spread to nearby or distant lymph nodes.

Lymph nodes are small structures found throughout the body, including the neck, armpits, chest, abdomen, pelvis, and groin. They filter lymph fluid and help the immune system respond to infections.

The two broad groups of lymphoma are Hodgkin lymphoma and non-Hodgkin lymphoma. Non-Hodgkin lymphoma includes many different types. Some grow slowly over years, while others need treatment soon after diagnosis. Lymphoma may begin in a lymph node, but it can also develop in the bone marrow, spleen, stomach, skin, or other tissues containing

lymphocytes.

Cancer that spreads to lymph nodes is named after where it began. For example, breast cancer found in an armpit lymph node is still breast cancer, not lymphoma. This distinction matters because the treatment and outlook are based mainly on the original cancer type.

Swollen lymph nodes are common and are usually caused by infection or inflammation rather than cancer. A biopsy is often needed when cancer is suspected because symptoms and scans alone cannot reliably identify the cause.

Symptoms

A cancerous lymph node may not cause any symptoms. It may be found during an examination or imaging test performed for another reason.

Possible symptoms include:

Doctors sometimes call fever, drenching night sweats, and significant unexplained weight loss "B symptoms." These symptoms can help describe some lymphomas, but they also have many non-cancerous causes.

Symptoms can depend on where enlarged nodes are located. Nodes in the chest may press on airways or blood vessels. Nodes in the abdomen can cause pain, swelling, reduced appetite, or early fullness after eating.

A cancerous node is sometimes described as firm, painless, or difficult to move. However, touch alone cannot show whether a node contains cancer. Tender nodes can occur with infection, and cancerous nodes are not always hard.

- A painless lump in the neck, armpit, or groin
- Lymph nodes that remain enlarged or continue to grow
- Unexplained fever or drenching night sweats
- Weight loss without trying
- Ongoing tiredness or itching
- Breathlessness, cough, chest pressure, or abdominal fullness

Causes and risk factors

Lymphoma develops when genetic changes cause lymphocytes to grow and survive when they normally would not. These changes are usually acquired during life rather than inherited

from a parent. In many people, there is no clear reason why they occurred.

Factors linked with certain lymphomas include:

Most people with these factors do not develop lymphoma. Having no known risk factors does not rule it out.

Cancer spreads to lymph nodes when cells break away from a tumour and travel through lymph vessels. Whether this happens depends on the original cancer's biology and location. It is not caused by touching, pressing, or biopsying a lymph node.

- A weakened immune system, including after an organ transplant
- Some immune or inflammatory conditions
- Certain infections, such as Epstein-Barr virus, HIV, or human T-cell lymphotropic virus
- Previous chemotherapy or radiotherapy
- Increasing age, although lymphoma can occur at any age
- A close relative with lymphoma, which may slightly increase risk

Diagnosis

Your assessment may begin with questions about how long a node has been enlarged, whether it is changing, and whether you have other symptoms. A clinician may examine lymph node areas, the abdomen, liver, and spleen.

Blood tests can look for changes in blood cell counts and signs that organs are affected. They may also check for infections or other explanations. Blood tests cannot usually confirm or exclude lymphoma by themselves.

Imaging may include ultrasound, CT, MRI, or PET-CT. These tests show the size and location of lymph nodes and whether other parts of the body may be involved. An enlarged or active-looking node on a scan is not automatically cancerous.

A biopsy is usually needed to confirm the diagnosis. This means removing some or all of a lymph node for examination under a microscope. For suspected lymphoma, removing an entire node may provide more information than taking cells through a thin needle. A core needle biopsy may be suitable when a node is difficult to reach.

Laboratory specialists study the cells and may test proteins, chromosomes, and genes. These results identify whether the node contains lymphoma, metastatic cancer, infection, or another condition.

If cancer is confirmed, further testing establishes its type and extent. This process is called

staging. Staging may involve scans, blood tests, and sometimes a bone marrow biopsy. Unlike many solid cancers, advanced-stage lymphoma is not automatically incurable.

Treatment and management

Treatment is based on the exact biopsy result, the areas involved, symptoms, general health, and what matters to you. A specialist team may include haematologists, oncologists, radiologists, pathologists, and specialist nurses.

Some slow-growing lymphomas do not need treatment immediately if they are not causing problems. This approach is called active monitoring or watchful waiting. It includes planned appointments, examinations, and tests. Treatment begins if the lymphoma grows, affects organs, or causes significant symptoms.

Treatment for lymphoma may include:

Surgery is commonly used to obtain a biopsy but is rarely the main treatment for lymphoma because lymphocytes circulate throughout the lymphatic system. There are exceptions when lymphoma is limited to a particular organ or area.

When another cancer has spread to a lymph node, treatment is directed at the original cancer. It may involve surgery to remove selected nodes, radiotherapy, drug treatment, or a combination. Finding cancer in a nearby node does not always mean it has spread throughout the body.

Supportive care can help with nausea, pain, infections, tiredness, nutrition, emotional distress, and fertility concerns. Before treatment, you may be offered vaccinations, infection screening, heart or lung tests, or a discussion about preserving fertility when relevant.

- Chemotherapy, which uses medicines that kill or control dividing cells
- Immunotherapy, which helps the immune system recognise or attack lymphoma cells
- Targeted therapy aimed at particular features of the cancer cells
- Radiotherapy directed at a defined area
- Stem-cell transplantation for selected lymphomas
- CAR T-cell therapy, which modifies immune cells to recognise cancer

Complications

Enlarged nodes can press on nearby organs, nerves, airways, or blood vessels. Lymphoma may

also affect the bone marrow, reducing normal blood cell production. This can contribute to infections, bruising, bleeding, breathlessness, or tiredness.

Treatment can cause short-term effects such as nausea, hair loss, mouth soreness, low blood counts, or increased infection risk. The effects differ between treatments and are often manageable.

Some treatments carry longer-term risks, including fertility problems or effects on the heart, lungs, nerves, or risk of another cancer. Your team should explain the risks that apply to the treatment being considered and any follow-up needed.

Rapid breakdown of many cancer cells can occasionally disturb body salts and kidney function. This is called tumour lysis syndrome. People at risk are monitored and given preventive treatment.

Prevention

Most lymphomas cannot be reliably prevented. The cell changes that cause them are usually not linked to anything a person knowingly did.

Reducing exposure to infections linked with particular lymphomas may lower risk in some settings, but it cannot prevent every case. HIV testing and effective treatment, avoiding shared needles, and following occupational safety measures can reduce certain infection risks.

There is no screening programme for lymphoma in people without symptoms.

Healthy habits and recommended vaccines can reduce the risk of some cancers or infections, but they cannot guarantee that cancer will not reach a lymph node. New or persistent symptoms still deserve assessment.

Living with it and what to expect

What happens over months and years depends strongly on the diagnosis. Hodgkin lymphoma and some fast-growing non-Hodgkin lymphomas can often be cured. Some slow-growing lymphomas may not be considered curable with standard treatment, but they can sometimes be controlled for many years through periods of monitoring and treatment.

A lymphoma that returns may still respond to another treatment. Options can include different medicines, stem-cell transplantation, CAR T-cell therapy, clinical trials, or care focused on symptom control. Not every option is suitable for every person.

For cancer that has spread from another organ, the outlook is based on the original cancer, the

number and location of affected nodes, other areas of spread, and treatment response. Cancer in one nearby lymph node can have a very different meaning from cancer in several distant organs.

During treatment, daily life may be affected by appointments, tiredness, infection precautions, and changes in appetite or concentration. Recovery can take time even after treatment ends. Returning gradually to work, exercise, and other activities may be more realistic than expecting an immediate return to normal.

Follow-up may include examinations, blood tests, or imaging. Some people are monitored mainly for symptoms rather than having frequent routine scans. Follow-up also checks for treatment effects and supports physical and emotional recovery.

When to get medical help

Arrange a routine medical appointment if you have a lymph node that remains enlarged, keeps growing, feels unusual, or has no clear connection to a recent infection. Also seek assessment for repeated fever, drenching night sweats, unexplained weight loss, persistent itching, or ongoing tiredness.

If you have already been diagnosed, contact your cancer team promptly about new or worsening symptoms. Fever during chemotherapy or after a stem-cell transplant needs urgent advice because treatment may reduce your ability to fight infection. Follow the temperature and contact instructions in your treatment plan.

Seek emergency help for:

These symptoms can have causes other than cancer, but they need immediate assessment.

- Severe or rapidly worsening difficulty breathing
- Noisy breathing or difficulty swallowing saliva
- Sudden swelling of the face, neck, or upper chest
- New weakness or numbness in the arms or legs
- Loss of bladder or bowel control
- Severe confusion, fainting, or uncontrolled bleeding

Common questions

Is lymph node cancer the same as lymphoma?

Not always. Lymphoma starts in lymphocytes and may involve lymph nodes or other tissues. Cancer can also spread into lymph nodes from another organ. A biopsy identifies which situation is present.

Does a swollen lymph node mean I have cancer?

Usually not. Infections are a much more common reason for swollen nodes. Recent vaccination, inflammation, and some medicines can also cause swelling. A node that persists, grows, or occurs with unexplained symptoms should be assessed.

Is lymph node cancer curable?

Some lymphomas are often curable, while others are usually managed as long-term conditions. Cancer that has spread to lymph nodes may also be curable in some situations. The exact cancer type, extent, and response to treatment are more informative than the phrase "lymph node cancer."

Does cancer in a lymph node mean stage 4?

No. In many solid cancers, spread to nearby lymph nodes is part of regional staging and does not automatically mean stage 4. Lymphoma staging works differently, and even stage 4 lymphoma may respond well to treatment.

What does a cancerous lymph node feel like?

It may feel firm, painless, enlarged, or less movable than surrounding tissue, but there is no reliable feel test. Infected nodes can have similar features. Imaging and biopsy are used when cancer is suspected.

Can blood tests detect lymphoma?

Blood tests can show abnormal blood counts, organ effects, or signs that support further investigation. Normal blood results do not rule out lymphoma, and abnormal results do not confirm it. Diagnosis usually requires tissue from a biopsy.

Sources

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