CONDITION

Hodgkin lymphoma

Hodgkin lymphoma is a cancer of lymphocytes, the white blood cells that help fight infection.

WHAT IT IS
Cancer of infection-fighting white blood cells

BODY SYSTEM
Lymphatic and immune systems

MAIN SYMPTOMS
Painless swollen glands, fever, night sweats, weight loss

WHAT CAUSES IT
Unknown; abnormal changes in B lymphocytes

HOW IT IS DIAGNOSED
Lymph node biopsy, followed by imaging

MAIN TREATMENT
Combination drug therapy, sometimes with radiotherapy

CAN IT BE CURED?
Yes - most people can be cured

IS IT AN EMERGENCY?
Sometimes - severe breathing trouble needs emergency care

LONG-TERM OUTLOOK
Often excellent, with lifelong follow-up for late effects

Overview

Hodgkin lymphoma is a cancer of the lymphatic system. This system includes lymph nodes, the spleen, bone marrow, and a network of vessels that carry a clear fluid called lymph. It forms part of the immune system.

The condition begins when a type of white blood cell called a lymphocyte grows abnormally. Most cases are classical Hodgkin lymphoma, which usually contains distinctive cells called Reed-Sternberg cells. A less common type, nodular lymphocyte-predominant B-cell lymphoma, behaves differently and may need different treatment.

Hodgkin lymphoma often starts in lymph nodes in the neck or chest. It can spread through the lymphatic system or, less often, to organs such as the lungs, liver, bone marrow, or bones.

It is a serious condition, but treatment is often highly effective. The treatment plan is based on the type, stage, symptoms, scan results, general health, and likely effects of treatment.

Symptoms

The most common sign is one or more enlarged lymph nodes. These often feel like painless lumps under the skin, especially in the neck, above the collarbone, armpit, or groin. Many swollen lymph nodes are caused by infections rather than lymphoma, but a lump that persists or grows should be assessed.

Some people have symptoms known as "B symptoms":

Other possible symptoms include persistent tiredness, widespread itching, reduced appetite, or discomfort caused by enlarged lymph nodes. Lymph nodes in the chest may cause a cough, breathlessness, or chest pressure.

Rarely, affected lymph nodes hurt after drinking alcohol. This symptom is not specific enough to diagnose Hodgkin lymphoma.

Early Hodgkin lymphoma may cause few symptoms. Blood tests can also be normal, so the absence of abnormal blood results does not rule it out.

- Unexplained fever
- Drenching night sweats that soak clothes or bedding
- Unintentional weight loss

Causes and risk factors

The exact cause is not known. Hodgkin lymphoma develops when genetic changes allow a lymphocyte, usually a B lymphocyte, to survive and multiply when it normally would not.

Previous infection with Epstein-Barr virus, which can cause glandular fever, is linked to some cases. Most people who have this virus never develop lymphoma, and many people with Hodgkin lymphoma have no clear connection to it.

Risk is also higher in people with a weakened immune system, including some people living with HIV or taking long-term immune-suppressing medicines. Having a close relative with Hodgkin lymphoma may slightly increase risk, but most people do not have an affected family member.

These factors do not mean that someone will develop Hodgkin lymphoma. The condition is not

caused by an injury, stress, or anything a person did, and it cannot be passed from one person to another.

Diagnosis

A medical assessment usually begins with questions about symptoms and an examination of the lymph nodes, abdomen, and other areas. Blood tests may check blood cell levels and how the liver and kidneys are working. They can support the assessment but cannot confirm Hodgkin lymphoma.

Diagnosis requires a biopsy. This means removing tissue from an enlarged lymph node so a pathologist can examine it under a microscope. Whenever practical, an entire lymph node or a substantial piece is removed because a small needle sample may not provide enough information.

Special laboratory tests identify the abnormal cells and help determine the lymphoma type. The biopsy is also important because infections and other lymphomas can cause similar symptoms.

If Hodgkin lymphoma is confirmed, tests are used to find its stage and plan treatment. These commonly include a PET-CT scan, which combines detailed body images with information about areas using more glucose than expected. Active lymphoma often appears as a brighter area. CT scans and blood tests may also be used.

Stages run from I to IV. Lower stages involve fewer areas, while higher stages mean that lymphoma is more widespread. Stage IV does not have the same meaning as it does in every other cancer: advanced Hodgkin lymphoma can still respond well to treatment and may be cured.

A bone marrow biopsy is now needed less often because PET-CT can often show whether bone marrow is involved.

Treatment and management

Treatment is planned by a specialist lymphoma team. The aim is usually to cure the condition while limiting short-term and long-term side effects.

Most people receive a combination of anticancer medicines. These may include chemotherapy, targeted therapy, or immunotherapy. The exact combination and number of treatment cycles are chosen according to the lymphoma type, stage, risk features, age, health, and local treatment guidance.

Some people also receive radiotherapy, which uses focused high-energy radiation to destroy lymphoma cells in a defined area. It may be used after drug treatment in selected early-stage cases or when an area has not responded as expected.

PET-CT scans may be performed during treatment. The results help the team judge how well the lymphoma is responding and, in some situations, adjust later treatment. A remaining lump does not always mean active lymphoma because scar tissue can remain after successful therapy.

Short-term treatment effects may include tiredness, nausea, hair loss, mouth soreness, and reduced blood cell levels. Low white blood cell levels can increase infection risk. The specific effects differ between medicines, and supportive treatments can often reduce them.

Treatment can affect fertility. Before starting, people who may want biological children in the future should have an opportunity to discuss sperm, egg, embryo, or ovarian tissue preservation when time and circumstances allow.

If Hodgkin lymphoma does not respond or returns, options may include different drug combinations, antibody-based targeted treatment, medicines that help the immune system recognise cancer cells, or high-dose treatment followed by a stem cell transplant. Some people enter clinical trials studying newer approaches.

Nodular lymphocyte-predominant B-cell lymphoma often grows more slowly than classical Hodgkin lymphoma. Depending on its extent and symptoms, management may include careful monitoring, radiotherapy, antibody treatment, chemotherapy, or a combination.

Complications

Hodgkin lymphoma can press on nearby structures. A large mass in the chest may affect breathing or blood flow. Widespread lymphoma may affect blood cell production or the function of organs such as the liver.

Treatment-related complications can occur during therapy or years later. These may include serious infections, heart or lung problems, thyroid underactivity, reduced fertility, and new cancers caused partly by earlier chemotherapy or radiotherapy. Modern treatment plans aim to reduce these risks while keeping treatment effective.

Not everyone develops long-term complications. Risk is influenced by the treatments received, their intensity, the body areas exposed to radiation, age at treatment, and other health factors. A personal follow-up plan should explain which checks are relevant.

Emotional effects also matter. Uncertainty, changes in work or study, altered body image, and fear of recurrence can continue after treatment. Psychological and practical support are part

of lymphoma care.

Prevention

There is no established way to prevent most cases of Hodgkin lymphoma. The genetic changes that lead to it usually occur without a known avoidable cause.

People living with HIV can reduce several health risks by taking effective HIV treatment, but this does not guarantee that lymphoma will be prevented. There is no routine screening test for Hodgkin lymphoma in people without symptoms.

Noticing a persistent or growing lymph node and arranging an assessment may help the condition be diagnosed earlier, but this is early detection rather than prevention.

Living with it and what to expect

Treatment commonly lasts for several months. During that time, energy levels may change from day to day. Work, school, exercise, and family responsibilities may need temporary adjustments. Light activity can be helpful when tolerated, but recovery time is also important.

After treatment, follow-up appointments check recovery, possible signs of lymphoma returning, and delayed treatment effects. Follow-up may include physical examinations and blood tests. Scans are used when clinically appropriate rather than automatically continuing forever in every person.

Most relapses happen within the first few years, although later relapse is possible. New symptoms do not automatically mean lymphoma has returned. Infections, treatment effects, and unrelated conditions are often responsible, but persistent changes should be assessed.

Fatigue may continue for months after therapy. Hair usually grows back after treatments that cause hair loss, although its texture may change. Fertility and hormone changes can be temporary or permanent, depending on treatment.

Many people return to usual work, education, relationships, exercise, and family life. Long-term care may include heart health checks, thyroid testing, vaccination review, and screening for certain cancers. The appropriate plan is based on the treatment you received rather than Hodgkin lymphoma alone.

When to get medical help

Arrange a routine medical appointment if you have an unexplained lymph node that persists, grows, or feels hard, especially if it occurs with night sweats, fever, itching, tiredness, or unintentional weight loss. These symptoms have many possible causes and do not by themselves mean lymphoma.

If you are being treated, contact your treatment team promptly about:

A fever during chemotherapy can be a sign of a serious infection even if you otherwise feel reasonably well. Follow the urgent contact instructions given by your treatment centre rather than waiting for the next appointment.

Seek emergency care for severe difficulty breathing, blue or grey lips, fainting, confusion, sudden chest pain, or rapidly increasing swelling of the face or neck. New leg weakness, loss of bladder or bowel control, or numbness around the buttocks or genitals also needs emergency assessment because it may indicate pressure on the spinal cord.

- Fever, chills, or other possible signs of infection
- New breathlessness, cough, rash, or unusual bleeding
- Vomiting or diarrhoea that prevents you from keeping fluids down
- Side effects that are worsening or difficult to manage

Common questions

Is Hodgkin lymphoma curable?

Yes. Most people can be cured, including many with advanced-stage lymphoma. The chance of cure is influenced by the lymphoma type, stage, response to treatment, age, and general health. If it returns, further treatment can still produce long remissions and sometimes a cure.

Is Hodgkin lymphoma the same as non-Hodgkin lymphoma?

No. Both begin in lymphocytes, but they contain different abnormal cells and include different subtypes. Their usual patterns of spread and treatments are also different. A biopsy is needed to tell them apart.

Does a swollen lymph node mean I have lymphoma?

Usually not. Infections are a much more common reason for enlarged lymph nodes. A node deserves assessment if it does not settle, continues growing, feels hard or fixed, or occurs with unexplained fever, drenching night sweats, or weight loss.

Can Hodgkin lymphoma spread to other people?

No. Hodgkin lymphoma is not contagious. Epstein-Barr virus is associated with some cases,

but having or passing on that common virus is not the same as passing on lymphoma.

Will I lose my hair during treatment?

Some chemotherapy combinations commonly cause hair thinning or loss, while other treatments may have less effect. Hair loss is usually temporary, but this depends on the medicines used. Your treatment team can explain what is expected with your planned treatment.

Can Hodgkin lymphoma come back after treatment?

It can return, most often during the first few years after treatment. This is called relapse. Follow-up helps monitor recovery and investigate concerning symptoms. A relapse does not mean that no further treatment is available.

Sources

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