



HODGKIN LYMPHOMA

Hodgkin lymphoma is a cancer that begins in cells of the immune system. The immune system fights infections and other diseases. The lymphatic system is part of the immune system, and includes **Lymph vessels**, **Lymph** and **Lymph nodes**.

Other parts of the lymphatic system include the tonsils, thymus, and spleen. Lymphatic tissue is also found in other parts of the body including the stomach, skin, and small intestine.

HODGKIN LYMPHOMA CELLS

Hodgkin lymphoma begins when a lymphocyte (usually a B cell) becomes abnormal. The abnormal cell divides to make copies of itself. Hodgkin lymphoma cells are called Reed-Sternberg cells. They do not protect the body from infections or other diseases. They also do not die when they should. The lymph node that contains Reed-Sternberg cells becomes enlarged, and the abnormal cells can spread throughout the body.

RISK FACTORS

The risk factors for Hodgkin lymphoma include the following:

- **Certain Viruses:** Having an infection with the Epstein-Barr virus (EBV) or the Human Immunodeficiency Virus (HIV) may increase the risk of developing Hodgkin lymphoma. However, lymphoma is not contagious.
- **Weakened immune system**
- **Age:** Hodgkin lymphoma is most common among teens and adults aged 15 to 35 years and adults aged 55 years and older.
- **Family history:** Family members, especially brothers and sisters, of a person with Hodgkin lymphoma or other lymphomas may have an increased chance of developing this disease.

SYMPTOMS

- Swollen lymph nodes (that do not hurt) in the neck, underarms, or groin
- Becoming more sensitive to the effects of alcohol or having painful lymph nodes after drinking alcohol
- Weight loss for no known reason
- Fever that does not go away
- Soaking night sweats
- Itchy skin
- Coughing, trouble breathing, or chest pain
- Weakness and tiredness that do not go away.

Most often, these symptoms are not due to cancer. Anyone with symptoms that last more than 2 weeks should see a doctor.

DIAGNOSIS

If you have swollen lymph nodes or another symptom that suggests Hodgkin lymphoma, your doctor will try to find out what is causing the problem. You may have some of the following exams and tests:

- **Physical exam:** Your doctor checks for swollen lymph nodes in your neck, underarms, and groin. Your doctor also checks for a swollen spleen or liver.
- **Blood tests:** The lab does a complete blood count to check the number of white blood cells and other cells and substances.
- **Chest x-rays:** X-ray pictures may show swollen lymph nodes or other signs of disease in your chest.
- **Biopsy:** A biopsy is the only sure way to diagnose Hodgkin lymphoma. Your doctor may remove an entire lymph node (excisional biopsy) or only part of a lymph node (incisional biopsy). A thin needle (fine needle aspiration) usually cannot remove a large enough sample for the pathologist to diagnose Hodgkin lymphoma. Removing an entire lymph node is best.

TYPES OF HODGKIN LYMPHOMA

When Hodgkin lymphoma is found, the pathologist reports the type. There are two major types of Hodgkin lymphoma:

- **Classical Hodgkin lymphoma:** Most people with Hodgkin lymphoma have the classical type.
- **Nodular lymphocyte-predominant Hodgkin lymphoma:** This is a rare type of Hodgkin lymphoma. The abnormal cell is called a popcorn cell. It may be treated differently from the classical type.

STAGING

Staging may involve one or more of the following tests:

- **CT scan:** An x-ray machine linked to a computer takes a series of detailed pictures of your chest, abdomen, and pelvis.
- **MRI:** A powerful magnet linked to a computer is used to make detailed pictures of your bones, brain, or other tissues.
- **PET scan:** You receive an injection of a small amount of radioactive sugar. A machine makes computerized pictures of the sugar being used by cells in your body. Lymphoma cells use sugar faster than normal cells and areas with lymphoma look brighter on the pictures.
- **Bone marrow biopsy:** The doctor uses a thick needle to remove a small sample of bone and bone marrow from your hipbone or another large bone. Local anaesthesia can help control pain. A pathologist looks for Hodgkin lymphoma cells in the sample. Other staging procedures may include biopsies of other lymph nodes, the liver or other tissue.



The doctor considers the following to determine the stage of Hodgkin lymphoma:

- The number of lymph nodes that have Hodgkin lymphoma cells
- Whether these lymph nodes are on one or both sides of the diaphragm
- Whether the disease has spread to the bone marrow, spleen, liver, or lung

The stages of Hodgkin lymphoma are as follows:

- **Stage I:** The lymphoma cells are in one lymph node group (such as in the neck or underarm). Or, if the lymphoma cells are not in the lymph nodes, they are in only one part of a tissue or an organ (such as the lung).
- **Stage II:** The lymphoma cells are in at least two lymph node groups on the same side of (either above or below) the diaphragm. Or, the lymphoma cells are in one part of a tissue or an organ and the lymph nodes near that organ (on the same side of the diaphragm). There may be lymphoma cells in other lymph node groups on the same side of the diaphragm.
- **Stage III:** The lymphoma cells are in lymph nodes above and below the diaphragm. Lymphoma also may be found in one part of a tissue or an organ such as the liver, lung, or bone near these lymph node groups. It may also be found in the spleen.
- **Stage IV:** Lymphoma cells are found in several parts of one or more organs or tissues. Or, the lymphoma is in an organ (such as the liver, lung, or bone) and in distant lymph nodes.
- **Recurrent:** The disease returns after treatment. In addition to these stage numbers, your doctor may also describe the stage as A or B:
 - A:** You have not had weight loss, drenching night sweats, or fevers.
 - B:** You have had weight loss, drenching night sweats, or fevers.

TREATMENT

Specialists who treat Hodgkin lymphoma include haematologists, medical oncologists, and radiation oncologists. The choice of treatment depends mainly on the following:

- The type of your Hodgkin lymphoma (most people have classical Hodgkin lymphoma)
- Its stage (where the lymphoma is found)
- Whether you have a mass or tumour that is more than 4 inches (10 centimetres) wide
- Your age
- Whether you have had weight loss, drenching night sweats, or fevers.

People with Hodgkin lymphoma may be treated with chemotherapy, radiation therapy, or both. If Hodgkin lymphoma comes back after treatment, doctors call this a relapse or recurrence. People with Hodgkin lymphoma that comes back after treatment may receive high doses of chemotherapy, radiation therapy, or both, followed by stem cell transplantation.

TIPS:



Second opinion - Before starting treatment, you might want a second opinion about your diagnosis and your treatment plan.

Nutrition and physical activity - It is important for you to take care of yourself by eating well and staying as active as you can. You need the right amount of calories

to maintain a good weight. You also need enough protein to keep up your strength. Many people find they feel better when they stay active. Walking, yoga, swimming, and other activities can keep you strong and increase your energy.

Follow-up care - You will need regular checkups after treatment for Hodgkin lymphoma. Even when there are no longer any signs of cancer, the disease sometimes returns because undetected lymphoma cells may remain somewhere in your body after treatment. Also, checkups help detect health problems that can result from cancer treatment. People treated for Hodgkin lymphoma have an increased chance of developing heart disease; leukaemia; melanoma; non-Hodgkin lymphoma; and cancers of the bone, breast, lung, stomach, and thyroid.

SOURCES OF SUPPORT

- Doctors, nurses, and other members of your health care team.
- Social workers, counsellors, or members of the clergy
- Support groups
- Cancer Institutions such as the Africa Cancer Foundation and Faraja Cancer Support Trust

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P.O. Box 1114-00621 Village Market, Nairobi, Kenya

T: (+254) 20 802 2711

M: (+254) 788 263 358/725 337 603

Twitter: @AfriCF

info@africacancerfoundation.org

www.africacancerfoundation.org

