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Lymphoma - Hodgkin - Diagnosis [1]

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ON THIS PAGE: You will find a list of the common tests, procedures, and scans that doctors can use to find out what's wrong and identify the cause of the problem. To see other pages, use the menu on the side of your screen.

Doctors use many tests to diagnose lymphoma and find out the extent of the disease. Some tests may also determine which treatments may be the most effective. For most types of cancer, a biopsy is the only way to make a definitive diagnosis. If a biopsy is not possible, the doctor may suggest other tests that will help make a diagnosis. Imaging tests may be used to find out the extent of the disease.

This list describes options for diagnosing this type of cancer, and not all tests listed will be used for every person. Your doctor may consider these factors when choosing a diagnostic test:

- Age and medical condition
- Type of cancer suspected
- Signs and symptoms
- Previous test results

The following tests may be used to help diagnose Hodgkin lymphoma:

- **Medical history and physical examination.** A thorough medical history and physical examination can show evidence of typical symptoms, such as night sweats, fevers, and enlarged lymph nodes or spleen.
- **Biopsy.** A [biopsy](#) [3] is the removal of a small amount of tissue for examination under a microscope. Other tests can suggest that cancer is present, but Hodgkin lymphoma can only be diagnosed after a biopsy of an affected piece of tissue, preferably by removal, or excision, of a lymph node. Most commonly, this will be a lymph node in the neck, under the arm, or in the groin. If there are no lymph nodes in these areas, a biopsy of other lymph nodes, such as those in the center of the chest, may be necessary. This type of biopsy usually requires minor surgery, although occasionally it is possible to do a biopsy using a core needle during a scan using local anesthesia. Anesthesia is medication to block the awareness of pain. Doctors most commonly use a computed tomography (CT or CAT) scan (see below) to help guide the needle to the correct location.

A pathologist then analyzes the sample(s) removed during the biopsy. A pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease. A hematopathologist is a doctor who had received additional training in blood diseases and blood cancer diagnosis.

It is important that the biopsy sample is large enough to allow the pathologist to make an accurate diagnosis and determine the subtype of Hodgkin lymphoma. As described in the [Overview](#) [4], a biopsy of cHL usually has Reed-Sternberg cells. For people with nodular lymphocyte-predominant Hodgkin lymphoma, the Reed-Sternberg cells often look different and are given the name “LP” cells. In contrast to classic Reed-Sternberg cells, LP cancer cells have a protein on their surface called CD20.

Once Hodgkin lymphoma is diagnosed, other tests can help find out the extent of the disease, the stage, and other information to help the doctors plan treatment. These tests include the following:

- **Laboratory tests.** Blood tests may include a [complete blood count \(CBC\)](#) [5] and an analysis of the different types of white blood cells, in addition to the erythrocyte sedimentation rate (ESR or "sed rate") and liver and kidney function tests.
- **Computed tomography (CT or CAT) scan.** A [CT scan](#) [6] creates a 3-dimensional picture of the inside of the body with an x-ray machine. A computer then combines these images into a detailed, cross-sectional view that shows any abnormalities, such as enlarged lymph nodes, or tumors. A CT scan of the chest, abdomen, and pelvis can help find cancer that has spread to other parts of the body. A special dye called a contrast medium is usually given before the scan to improve the details of the images. This dye can

be injected into a patient's vein or given as a liquid to swallow. People with a history of kidney disease or poor kidney function should not receive a contrast medium given by IV (vein).

- **Positron emission tomography (PET) scan.** A PET scan is a way to create pictures of organs and tissues inside the body. A small amount of a radioactive sugar substance is injected into the patient's vein. This sugar substance is taken up by cells that use the most energy. Because cancer tends to use energy actively, it absorbs more of the radioactive substance. A scanner then detects this substance to produce images of the inside of the body. PET scans may be used to determine the stage of Hodgkin lymphoma, although they are usually done with a CT scan, known as a [PET-CT scan](#) [7]. PET scans may also be used to see how the lymphoma is responding to treatment.
- **Magnetic resonance imaging (MRI).** An [MRI](#) [8] uses magnetic fields, not x-rays, to produce detailed images of the body. A special dye called a contrast medium is given before the scan to create a clearer picture. This dye can be injected into a patient's vein or given as a liquid to swallow. This test is sometimes used for Hodgkin lymphoma.
- **Lung function tests.** Also called pulmonary function tests or PFTs, lung function tests evaluate how much air the lungs can hold, how quickly air can move in and out of the lungs, and how well the lungs add oxygen and remove carbon dioxide from the blood. These tests may be done if a person's treatment plan includes chemotherapy with specific drugs that could affect the lungs.
- **Heart evaluation.** A heart evaluation, including an [echocardiogram \(ECHO\)](#) [9] or a [multigated acquisition \(MUGA\) scan](#) [10], may be used to check the functioning of the heart if specific types of chemotherapy will be included in a person's treatment plan.
- **Bone marrow aspiration and biopsy.** These 2 procedures are similar and often done at the same time to examine the bone marrow. Bone marrow is the soft, spongy tissue found inside the center of bones. It has both a solid and a liquid part. A bone marrow aspiration removes a sample of the fluid with a needle. A bone marrow biopsy is the removal of a small amount of solid tissue using a needle. A pathologist then analyzes the sample(s). However, bone marrow biopsy is no longer necessary if a PET-CT scan has been performed as part of the staging evaluation. Learn more about [bone marrow aspiration and biopsy](#) [11].

After diagnostic tests are done, your doctor will review all of the results with you. If the diagnosis is Hodgkin lymphoma, these results also help the doctor describe the extent of cancer. This is

called staging.

The [next section in this guide is Stages](#) [12], and it explains the system doctors use to describe the extent of the disease. Or, use the menu on the side of your screen to choose another section to continue reading this guide.

Links

- [1] <http://www.cancer.net/cancer-types/lymphoma-hodgkin/diagnosis>
- [2] <http://www.cancer.net/about-us>
- [3] <http://www.cancer.net/node/24406>
- [4] <http://www.cancer.net/node/19178>
- [5] <http://www.cancer.net/node/24716>
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