Nasopharyngeal Cancer - Diagnosis [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 03/2015

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 cancer and find out if it has spread to another part of the body, called metastasis. 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 of cancer. 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 whether the cancer has spread.

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 diagnose NPC:

- **Physical examination and blood test.** During a physical examination, the doctor feels for any lumps on the neck, lips, gums, and cheeks. Also, the doctor will look for any abnormalities in the nose, mouth, throat, and tongue, often using a light and/or mirror to get a clearer view. A blood test to check for antibodies against the EBV virus may be done at the same time. See the Risk Factors [3] section for more information about EBV.

- **Endoscopy [4].** This test allows the doctor to see inside the body with a thin, lighted, flexible tube called an endoscope. The person may be sedated as the tube is inserted through the mouth or nose to examine the head and neck areas. Sedation is giving medication to become more relaxed, calm, or sleepy. When an endoscopy is done to look into the nasopharynx, it is called a nasopharyngoscopy.

- **Biopsy [5].** A biopsy is the removal of a small amount of tissue for examination under a microscope. Other tests can suggest that cancer is present, but only a biopsy can make a definite diagnosis. 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. The type of biopsy performed will depend on the location of the cancer.

  During a fine needle aspiration, cells are withdrawn using a thin needle inserted directly into the tumor. The cells are examined under a microscope during cytologic examination for signs of cancer. The biopsy may be performed using local anesthesia or general anesthesia. Local anesthesia is an injection that numbs the area where a procedure is being done, while general anesthesia makes a person unconscious during a major procedure, such as surgery.

- **X-ray.** An x-ray is a way to create a picture of the structures inside of the body, using a small amount of radiation. Sometimes, a barium swallow may be required before having an x-ray. The barium coats the mouth and throat to enhance the image on the x-ray. An x-ray of the skull and chest may be needed to learn more about the extent of NPC.

- **Computed tomography (CT or CAT) scan [6].** A CT scan creates a three-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 or tumors. A CT scan can also be used to measure the tumor's size. Sometimes, a special dye called a contrast medium is given before the scan to provide better detail on the image. This dye can be injected into a patient's vein or given as a liquid to swallow.

- **Magnetic resonance imaging (MRI) [7].** An MRI uses magnetic fields, not x-rays, to produce detailed images of the body, especially images of soft tissue such as the tonsils

and base of the tongue. An MRI is more sensitive than a CT scan in detecting a tumor of the nasopharynx and any possible spread to nearby tissues or lymph nodes. MRI can also be used to measure a tumor's size. 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.

- **Ultrasound [8].** An ultrasound uses sound waves to create a picture of the internal organs.

- **Bone scan [9].** A bone scan uses a radioactive tracer to look at the inside of the bones. The tracer is injected into a patient's vein. It collects in areas of the bone and is detected by a special camera. Healthy bone appears gray to the camera, and areas of injury, such as those caused by cancer, appear dark.

- **Neurological tests.** During these examinations, the doctor tests a person's nerve function, especially the tactile sensation of their face and the motor function of certain nerves in the head and neck area.

- **Hearing test. T**he doctor may perform a hearing test if he or she suspects there is fluid in the middle ear.

- **Positron emission tomography (PET) scan** [10]**.** 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 body. 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.

After diagnostic tests are done, your doctor will review all of the results with you. If the diagnosis is cancer, these results also help the doctor describe the cancer; this is called staging.

The next section in this guide is Stages and Grades [11], 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/nasopharyngeal-cancer/diagnosis
[2] http://www.cancer.net/about-us

[3] http://www.cancer.net/node/19412
[4] http://www.cancer.net/node/24511
[5] http://www.cancer.net/node/24406
[6] http://www.cancer.net/node/24486
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