

## Nasal Cavity and Paranasal Sinus Cancer - Diagnosis [1]

This section has been reviewed and approved by the [Cancer.Net Editorial Board](#) [2], 08/2014

**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 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. 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 these types 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

To make the diagnosis, a complete medical history and physical examination are necessary. Signs of nasal cavity and paranasal sinus cancer are often very similar to symptoms of chronic or allergic sinusitis. The physical examination is important, and doctors may perform one or more of the tests listed below to reach a diagnosis. There are no specific blood or urine tests that can be performed to help make an early diagnosis of either of these types of cancer

The following tests may be used to diagnose nasal cavity or paranasal sinus cancer:

**Physical examination.** The doctor feels for any lumps on the neck, lips, gums, and cheeks. Also, the doctor will inspect the nose, mouth, throat, and tongue for abnormalities, often using a light and/or mirror for a clearer view.

**Biopsy.** [3] 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. The sample removed during the biopsy is analyzed by a pathologist. A pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells,

tissues, and organs to diagnose disease.

**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 the use of medication to help a person become more relaxed, calm, or sleepy. The examination has different names depending on the area of the body that is examined, such as laryngoscopy, which examines the larynx; pharyngoscopy, which examines the pharynx; or nasopharyngoscopy, which examines the nasal cavity and nasopharynx.

In some cases, a diagnosis of paranasal sinus cancer will be made during an endoscopic surgery for what is believed to be benign chronic sinusitis. During the endoscopic sinus surgery, it is important for the surgeon to take a biopsy sample of normal-looking tissue and confirm the diagnosis in a procedure called a frozen section examination before completing the endoscopic surgery for benign chronic sinusitis. For more information about surgery, see the [Treatment Options](#) [5] section.

**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. An x-ray can show if the sinuses are filled with something other than air. If so, it is usually not cancer but, instead, an infection that is treatable. If treatment doesn't work to clear the sinuses, then other more specialized x-ray tests may be done to identify the blockage. Signs of cancer on an x-ray may be followed up with a computed tomography scan, also called a CT scan.

**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 create a clearer picture. This dye can be injected into a patient's vein or given as a pill to swallow. CT scans are very useful in identifying cancer of the nasal cavity or paranasal sinus.

**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 eye in its socket and the part of the brain near the sinuses. MRI can also be used to measure the tumor's size. A contrast medium may be injected into a patient's vein or given as a pill to swallow to create a clearer picture.

**Bone scan** [8]. This test may be done to see if cancer has spread to the bones. 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.

**Positron emission tomography (PET) scan** [9]. 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 helps explain the different stages for this type of cancer. Use the menu on the side of your screen to select Stages, or you can select another section, to continue reading this guide.*

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**Links:**

[1] <http://www.cancer.net/cancer-types/nasal-cavity-and-paranasal-sinus-cancer/diagnosis>

[2] <http://www.cancer.net/about-us>

[3] <http://www.cancer.net/node/24406>

[4] <http://www.cancer.net/node/24511>

[5] <http://www.cancer.net/node/19402>

[6] <http://www.cancer.net/node/24486>

[7] <http://www.cancer.net/node/24578>

[8] <http://www.cancer.net/node/24410>

[9] <http://www.cancer.net/node/24648>