Salivary Gland Cancer - Diagnosis [1]

This section has been reviewed and approved by the Cancer.Net Editorial Board [2], 08/2015

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.

For a salivary gland tumor, a needle biopsy (see below) is the preferred test for making a diagnosis. A surgical (incisional) biopsy should be avoided in almost every case with rare exceptions. 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

- Results of previous tests

Tests and Procedures

To diagnose salivary gland cancer, the doctor will ask about your medical history and potential risk factors. Then he or she will do a careful physical examination. A thorough examination of the skin is particularly important if the patient has ever had a skin tumor. If there is facial nerve paralysis, specific tests will be necessary, and an examination of the oral cavity (mouth), hypopharynx (lower throat), and larynx (voice box) will also be done.

There are no specific blood or urine tests that can detect a salivary gland tumor because there are no known tumor markers for salivary gland cancer at this time. Tumor markers are substances found in higher than normal amounts in the blood, urine, or body tissues of people with certain kinds of cancer.

In addition to a physical examination, the following tests may be used to diagnose salivary gland cancer:

- **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. A pathologist then analyzes the sample(s). A pathologist is a doctor who specializes in interpreting laboratory tests and evaluating cells, tissues, and organs to diagnose disease.

- **Ultrasound-guided needle biopsy.** During this type of biopsy, the doctor uses the images produced by an ultrasound to guide a needle into the tumor. An ultrasound [4] uses sound waves to create a picture of the internal organs. A pathologist then analyzes the sample(s).

- **Endoscopy [5].** This test allows the doctor to see inside the body with a thin, lighted, flexible tube called an endoscope. The person may be sedated while the tube is inserted through the mouth, down the esophagus, and into the stomach and small bowel. The examination has different names depending on the area of the body that is examined, such as laryngoscopy (larynx), pharyngoscopy (pharynx), or a nasopharyngoscopy (nasopharynx). Sedation is giving medication to become more relaxed, calm, or sleepy.

- **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. MRI can also be used to measure the 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.

- **Positron emission tomography (PET) scan** [8]**.** 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.

- **Panorex.** This is a rotating, or panoramic, x-ray of the upper and lower jawbones to detect cancer or evaluate teeth before cancer treatment.

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 figure out the tumor’s subtype.

The next section in this guide is Subtypes [9], and it lists the types of salivary gland tumors that may be diagnosed. 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/salivary-gland-cancer/diagnosis
[2] http://www.cancer.net/about-us
[3] http://www.cancer.net/node/24406
[4] http://www.cancer.net/node/24714
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