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Head and Neck Cancer

Squamous Cell Carcinoma of the Larynx

Definitions

Squamous cell: A thin, flat cell of the surfaces of the skin and linings of various organs.

Carcinoma: A type of cancerous tumor originating in the lining layer (epithelial cells) of an organ. About 80 percent of all cancers are carcinomas.

Malignant: Cancerous and capable of spreading.

Pathologist: A physician who examines tissues and fluids to diagnose disease in order to assist in making treatment decisions.

Lymphatic: Relating to lymph glands, especially those near the head and neck.

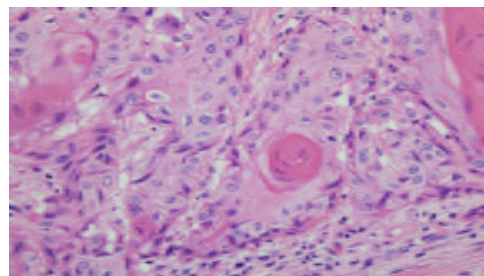
What is squamous cell carcinoma of the larynx?

Squamous cell carcinoma represents more than 90 percent of all head and neck cancers. In the United States, squamous cell carcinoma of the head and neck comprises about 4 percent of all malignancies. This type of cancer is formed from **reserve cells**—cells that replaced injured or damaged cells in the epithelial cells. Five-year survival rates average about 60 percent. If the tumor is treated at an early stage before it has grown or spread significantly, survival rates are better—as high as 80 percent.

Who is most likely to have squamous cell carcinoma?

Males have this type of cancer about twice as often as females. Tobacco products, especially smokeless tobacco, are a primary cause. Females are more commonly experiencing this type of cancer as they use tobacco products. Squamous cell carcinoma is more common among individuals in their 50s, 60s, and older.

Excessive alcohol use also is considered a risk factor in the development of squamous cell carcinoma, especially when coupled with tobacco products. In addition, Epstein-Barr virus; human papillomavirus (HPV) infection; gastroesophageal reflux disease (GERD); and exposure to paint fumes, plastic by-products, wood dust, asbestos, and gasoline fumes are considered possible risk factors.

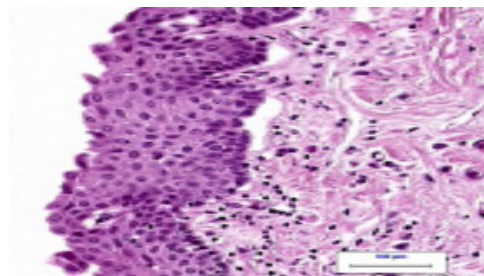


Squamous cell carcinoma symptoms are sore throat, ear pain, and trouble swallowing.

What characterizes squamous cell carcinoma?

The primary symptoms of squamous cell carcinoma of the larynx are sore throat, ear pain, and trouble swallowing. This type of cancer is located in one or all of these three areas:

- Supraglottis: the upper part of the larynx above the vocal cords, including the **epiglottis**.
- Glottis: the middle part of the larynx where the vocal cords are.
- Subglottis: the lower part of the larynx between the vocal cords and the **trachea** (windpipe).



Normal larynx cells.

How does the pathologist make a diagnosis?

Your primary care physician or specialist will physically examine your throat and neck, checking for swollen lymph nodes and looking down your throat with a small, long-handled mirror or a **laryngoscope** (a long tube with a light at the end). In addition, a physician may gather a **biopsy specimen** (cell samples taken from the suspicious area) for the pathologist to examine.

What else does the pathologist look for?

If the pathologist finds malignant cells, your primary care physician or specialist may complete a thorough examination of your head and neck and do additional biopsies with an **endoscope**, a thin instrument inserted through an incision that allows a physician to view inside the body. In addition, a **complete blood count**, a **chest x-ray**, and other tests measuring organ function will help the pathologist assess whether or not the cancer has spread to other parts of the body.

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What kinds of questions should I ask my doctors?

Ask any question you want. There are no questions you should be reluctant to ask. Here are a few to consider:

- Please describe the type of cancer I have and what treatment options are available.
- What stage is the cancer in?
- What are the chances for full remission?
- What treatment options do you recommend? Why do you believe these are the best treatments?
- What are the pros and cons of these treatment options?
- What are the side effects?
- Should I receive a second opinion?
- Is your medical team experienced in treating the type of cancer I have?
- Can you provide me with information about the physicians and others on the medical team?

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A **CT (computed tomography)** and/or **PET (positron emission tomography) scan** also can help the pathologist to see the nature and extent of the primary tumor and whether or not it has spread to the lymph nodes, lungs, or liver.

These tests help the pathologist assess the location, spread, and **stage** of the cancer. Stage 1 squamous cell tumors of the larynx are confined to the location of the original tumor. Stage 2 tumors are confined to the larynx but may have begun to affect the vocal cords or may be present in two different parts of the larynx. Stage 3 and 4 have spread beyond the larynx into other parts of the body.

How do doctors determine what surgery or treatment will be necessary?

The pathologist consults with your primary care physician after reviewing the test results and determining the stage of the cancer. Together, using their combined experience and knowledge, they determine treatment options most appropriate for your condition.

What kinds of treatments are available for squamous cell carcinoma?

Squamous cell carcinoma can be treated through one or more of the following: **radiation therapy**, **surgery**, and **chemotherapy**. It's important to learn as much as you can about the nature of your cancer and your treatment options and to make the decision that's right for you.

Radiation therapy uses high-energy, pinpointed x-rays to kill cancer cells. This type of treatment is directed at specific areas. It can be used to treat small tumors, minimizing the damage to normal cells or tissue surrounding the tumor, or can be used to destroy cancer cells that remain after surgery.

Surgical procedures used to treat cancer of the larynx include **cordectomy** (vocal cords removal), **supraglottic laryngectomy** (supraglottis removal), **hemilaryngectomy** (removal of half the voice box, saving the voice), **partial laryngectomy** (partial voice box removal, saving the ability to talk), **total laryngectomy** (removal of whole larynx), **thyroidectomy** (removal of thyroid gland), and **laser surgery** to remove a surface tumor through a bloodless cut in the tissue.

In addition, a surgeon may perform **neck dissection** to remove malignancies in the lymph nodes. This kind of surgery can significantly improve your chances of survival. In any type of surgery, surgeons take special care to preserve as much nerve, circulatory and muscular function in the neck and spine as possible. **Reconstructive surgery** accompanied by rehabilitation is used to retain or recover speech and swallowing function after the cancer is removed.

Chemotherapy treatments deliver drugs or hormones throughout the body and reduce the risk of the cancer spreading further or coming back. Physicians focus chemotherapy on specific areas as much as possible to improve effectiveness and reduce toxicity to normal parts of the body. Photodynamic and photothermal therapies activate chemotherapy drugs with light or heat to cause cancer cell death.

Clinical trials of new treatments for squamous cell carcinoma of the larynx may be found at www.cancer.gov/clinicaltrials. These treatments are highly experimental in nature but may be a potential option for advanced cancers.

For more information, go to www.cancer.gov (National Cancer Institute) or www.emedicine.com (of WebMD). Type the keywords **squamous cell carcinoma of the larynx** into the search box.