

# Head and Neck Cancer

## Squamous Cell Carcinoma/Lip & Oral Cavity

### What is squamous cell carcinoma of the lip and oral cavity?

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.

### Definitions

**Squamous cell:** A thin, flat cell, which is part of the surface 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.

### 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. This type of cancer 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.

### What characterizes squamous cell carcinoma?

Squamous cell carcinoma most commonly occurs on the lip, floor or roof of the mouth, tongue, soft palate, gums, and other areas of the oral cavity. Symptoms include tender painful lesions, wounds or sores that won't heal, a lump or thickened skin, a white or red patch, loose teeth or dentures, trouble chewing or swallowing, swelling of the jaw, and sore throat.

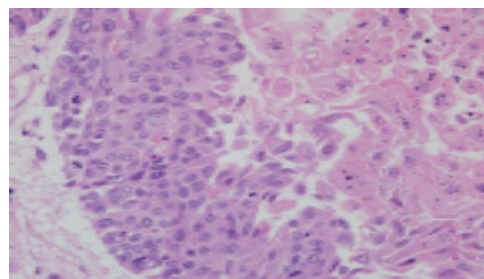
### How does the pathologist make a diagnosis?

The pathologist examines cells that have been treated with a dye called **toluidine blue**. The dye stains malignant cells blue. Normal cells are not stained by the dye. Also, the pathologist examines a **biopsy specimen** (cell samples obtained by your primary care physician or specialist).

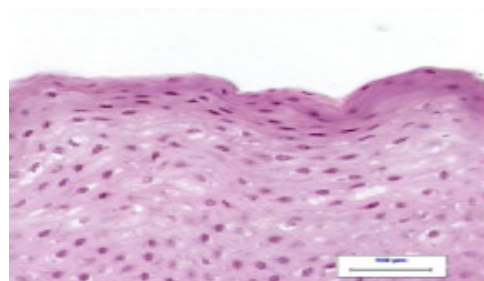
### What else does the pathologist look for?

If the pathologist finds malignant cells, your primary physician or specialist may complete a thorough head and neck examination and do additional biopsies with an **endoscope**, a thin instrument inserted through an incision that allows a physician to view inside the body. Also, **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. 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 head and neck tumor and whether or not it has spread to the lymph nodes, lungs or liver.

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Squamous cell carcinoma most commonly occurs on the lip and in the oral cavity.



Normal cells.

## 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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These tests help the pathologist assess the location, spread, and **stage** of the cancer. Stage 1 squamous cell tumors are confined to the head and neck, and stage 4 tumors have spread throughout the body. Stages between 1 and 4 describe conditions in between these two extremes.

## 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: **surgery, radiation therapy, chemotherapy**, as well as new investigative treatments such as immunotherapy and gene therapy. 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.

Surgery removes malignant tumors and is generally the first step of treatment. Particular types of surgery commonly performed include **wide local excision** (removal of cancer and some healthy tissue around it) and **neck dissection** to remove malignancies in the lymph nodes. These kinds of surgery can significantly improve your chances of survival. During neck dissection, surgeons take special care to preserve as much nerve, circulatory, and muscular function as possible. Reconstructive surgery accompanied by rehabilitation is used to retain or recover speech and swallowing function after the cancer is removed.

Radiation therapy can be used to shrink the tumor prior to surgery or to rid the body of any microscopic remnants of cancer in the area where the tumor was found and 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, some including immune therapy and gene therapy, may be found at [www.cancer.gov/clinicaltrials](http://www.cancer.gov/clinicaltrials). These treatments are highly experimental in nature but may be a potential option for advanced cancers. Immune therapy activates the body's immune response to fight cancer, while gene therapy delivers therapeutic genes to malignant cells.

**For more information**, go to [www.cancer.gov](http://www.cancer.gov) (National Cancer Institute) or [www.ahns.info](http://www.ahns.info) (American Head and Neck Society). Type the keywords **squamous cell carcinoma of the lip or oral cavity** into the search box.

Healing begins with the pathologist's diagnosis. Pathologists are the doctors who ensure you receive the right tests, the right diagnosis, and the right treatment.