



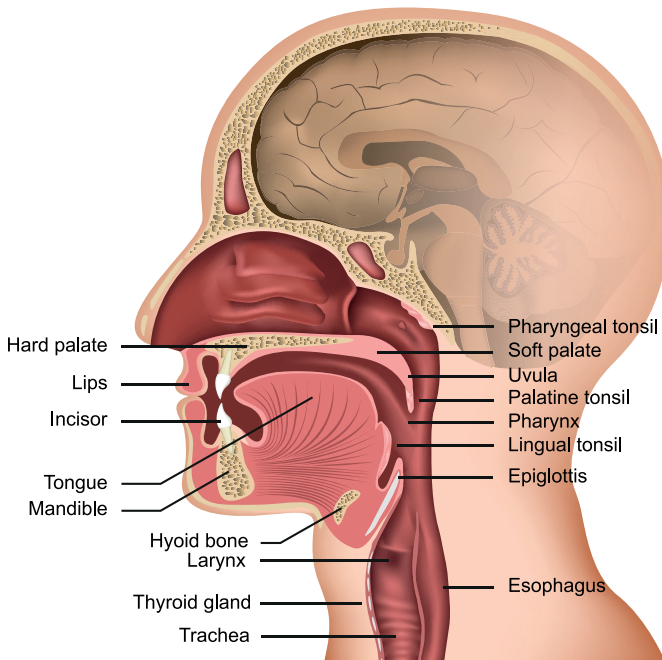
## Oropharyngeal Cancer

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CANCER CENTER

## What Is Oropharyngeal Cancer?

Oropharyngeal cancer is a disease in which malignant (cancer) cells form in the tissues of the oropharynx.

The oropharynx is the middle part of the pharynx (throat), behind the mouth. The pharynx is a hollow tube about 5 inches long that starts behind the nose and ends where the trachea (windpipe) and esophagus (tube from the throat to the stomach) begin. Air and food pass through the pharynx on the way to the trachea or the esophagus.



The oropharynx includes the following:

- Soft palate
- Side and back walls of the throat
- Tonsils
- Back one-third of the tongue

Oropharyngeal cancer is a type of head and neck cancer. Sometimes more than one cancer can occur in the oropharynx and in other parts of the oral cavity, nose, pharynx, larynx (voice box), trachea, or esophagus at the same time.

## **What Are Risk Factors for Oropharyngeal Cancer?**

Anything that increases your risk of getting a disease is called a risk factor. Having a risk factor does not mean that you will get cancer; not having risk factors does not mean that you will not get cancer. The most common risk factors for oropharyngeal cancer include the following:

- A history of smoking cigarettes for more than 10 pack years and other tobacco use
- Personal history of head and neck cancer
- Heavy alcohol use
- Being infected with human papillomavirus (HPV), especially HPV type 16. The number of cases of oropharyngeal cancers linked to HPV infection is increasing
- Chewing betel quid, a stimulant commonly used in parts of Asia

Signs and symptoms of oropharyngeal cancer include a lump in the neck and a sore throat.

## What Are Signs of Oropharyngeal Cancer?

These and other signs and symptoms may be caused by oropharyngeal cancer or by other conditions:

- A sore throat that does not go away
- Trouble swallowing
- Problems opening the mouth fully
- Trouble moving the tongue
- Weight loss for no known reason
- Ear pain
- A lump in the back of the mouth, throat, or neck
- A white patch on the tongue or lining of the mouth that does not go away
- Coughing up blood

## People With Oropharyngeal Cancer Should Have Their Treatment Planned by a Team of Doctors Who Are Expert in Treating Head and Neck Cancer

Depending on the stage of the cancer and treatment needs, a number of health professionals may provide care:

- Head and neck surgeon
- Medical Oncologist
- Radiation oncologist
- Dentist
- Speech therapist
- Dietitian
- Psychologist
- Rehabilitation specialist
- Plastic surgeon

## Tests Used To Detect (Find) And Diagnose Oropharyngeal Cancer

The following tests and procedures may be used:

### **Physical exam and history**

**PET-CT scan:** A procedure that combines the pictures from a positron emission tomography (PET) scan and a computed tomography (CT) scan. The PET and CT scans are done at the same time with the same machine. The combined scans give more detailed pictures of areas inside the body than either scan gives by itself. A PET-CT scan may be used to help diagnose disease, such as cancer, plan treatment, or find out how well treatment is working.

**CT scan (CAT scan):** A procedure that makes a series of detailed pictures of areas inside the body, such as the head and neck, taken from different angles. The pictures are made by a computer linked to an x-ray machine. A dye is injected into a vein or swallowed to help the organs or tissues show up more clearly. This procedure is also called computed tomography, computerized tomography, or computerized axial tomography.

### **PET scan (positron emission tomography scan):**

A procedure to find malignant tumor cells in the body. A small amount of radioactive glucose (sugar) is injected into a vein. The PET scanner rotates around the body and makes a picture of where glucose is being used in the body. Malignant tumor cells show up brighter in the picture because they are more active and take up more glucose than normal cells do.

**MRI (magnetic resonance imaging):** A procedure that uses a magnet, radio waves, and a computer to make a series of detailed pictures of areas inside the body. This procedure is also called nuclear magnetic resonance imaging (NMRI).

**Biopsy:** The removal of cells or tissues so they can be viewed under a microscope by a pathologist to check for signs of cancer. A fine-needle biopsy is usually done to remove a sample of tissue using a thin needle. Certain factors affect prognosis (chance of recovery) and treatment options.

## **The Following Procedures May Be Used To Remove Samples of Cells or Tissue:**

**Endoscopy:** A procedure to look at organs and tissues inside the body to check for abnormal areas. An endoscope is inserted through an incision (cut) in the skin or opening in the body, such as the mouth or nose. An endoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove abnormal tissue or lymph node samples, which are checked under a microscope for signs of disease. The nose, throat, back of the tongue, esophagus, stomach, larynx, windpipe, and large airways will be checked. The type of endoscopy is named for the part of the body that is being examined. For example, pharyngoscopy is an exam to check the pharynx.

**Laryngoscopy:** A procedure in which the doctor checks the larynx with a mirror or with a laryngoscope. A laryngoscope is a thin, tube-like instrument with a light and a lens for viewing. It may also have a tool to remove abnormal tissue or lymph node samples, which are checked under a microscope for signs of disease.

If cancer is found, the following test may be done to study the cancer cells:

**HPV test (human papillomavirus test):** A laboratory test used to check the sample of tissue for certain types of HPV infection. Oropharyngeal cancer can be caused by HPV.

## What Is Staging and How Are Treatment Decisions Made?

The process used to find out if cancer has spread within the oropharynx or to other parts of the body is called staging. The information gathered from the staging process determines the stage of the disease. It is important to know the stage in order to plan treatment. The results of some of the tests used to diagnose oropharyngeal cancer are often used to stage the disease.

When cancer spreads to another part of the body, it is called metastasis. Cancer cells break away from where they began (the primary tumor) and travel through the lymph system or blood. The metastatic tumor is the same type of cancer as the primary tumor. For example, if oropharyngeal cancer spreads to the lung, the cancer cells in the lung are actually oropharyngeal cancer cells. The disease is metastatic oropharyngeal cancer, not lung cancer.

## The Following Stages Are Used for Oropharyngeal Cancer

### Stage I (1) – Stage IV (4)

Hypopharyngeal cancer can be staged either Stage I (1) through Stage IV (4), Stage I being the least advanced and Stage IV the most advanced.

# Treatment for Oropharyngeal Cancer

## Surgery

Surgery (removing the cancer in an operation) is a common treatment of all stages of oropharyngeal cancer. A surgeon may remove the cancer and some of the healthy tissue around the cancer. After the surgeon removes all the cancer that can be seen at the time of the surgery, some patients may be given chemotherapy or radiation therapy after surgery to kill any cancer cells that are left. Treatment given after the surgery, to lower the risk that the cancer will come back, is called adjuvant therapy.

## Radiation Therapy

Radiation therapy is a cancer treatment that uses high-energy x-rays or other types of radiation to kill cancer cells or keep them from growing. External radiation therapy uses a machine outside the body to send radiation toward the cancer. The way the radiation therapy is given depends on the type and stage of the cancer being treated.

Certain ways of giving radiation therapy can help keep radiation from damaging nearby healthy tissue. These types of radiation therapy include the following:

- **Intensity-modulated radiation therapy (IMRT):** IMRT is a type of 3-dimensional (3-D) radiation therapy that uses a computer to make pictures of the size and shape of the tumor. Thin beams of radiation of different intensities (strengths) are aimed at the tumor from many angles.
- **Stereotactic body radiation therapy:** Stereotactic body radiation therapy is a type of external radiation therapy. Special equipment is used to place the patient in the same position for each radiation treatment. Once a day



for several days, a radiation machine aims a larger than usual dose of radiation directly at the tumor. By having the patient in the same position for each treatment, there is less damage to nearby healthy tissue. This procedure is also called stereotactic external-beam radiation therapy and stereotaxic radiation therapy.

In advanced oropharyngeal cancer, dividing the daily dose of radiation into smaller-dose treatments improves the way the tumor responds to treatment. This is called hyperfractionated radiation therapy.

### **Radiation therapy may work better in patients who have stopped smoking before beginning treatment.**

If the thyroid or pituitary gland are part of the radiation treatment area, the patient has an increased risk of hypothyroidism (too little thyroid hormone). A blood test to check the thyroid hormone level in the body should be done before and after treatment.

## **Chemotherapy**

Chemotherapy is a cancer treatment that uses drugs to stop the growth of cancer cells, either by killing the cells or by stopping them from dividing. When chemotherapy is taken by mouth or injected into a vein or muscle, the drugs enter the bloodstream and can reach cancer cells throughout the body (systemic chemotherapy). The way the chemotherapy is given depends on the type and stage of the cancer being treated.

## **Immunotherapy**

Immunotherapy is treatment that uses your immune system to fight cancer. Substances are used to boost, direct, or restore

the body's natural defenses against cancer.

## Follow-up Tests May Be Needed

Some of the tests that were done to diagnose the cancer or to find out the stage of the cancer may be repeated. Some tests will be repeated in order to see how well the treatment is working. Decisions about whether to continue, change, or stop treatment may be based on the results of these tests.

Support is available for coping with changes that may have happened as a result of cancer treatment. Your healthcare team can offer ideas as well as a plan of care for long-term follow-up.

## Clinical Trials

Clinical trials are done to find out if new cancer treatments are safe and effective or better than the standard treatment.

People who take part in a clinical trial may receive:

- The standard drugs alone or
- The standard drugs plus the new treatment being studied

Taking part in a clinical trial helps improve the way cancer will be treated in the future. Even when clinical trials do not lead to effective new treatments, they often answer important questions and help move research forward.

Some clinical trials only include people who have not yet received treatment. Other trials test treatments for those whose cancer has not gotten better. There are also clinical trials that

Many of today's standard treatments for cancer are based on earlier clinical trials.

**Ask if there is a clinical trial right for you.**

test new ways to stop cancer from coming back or reduce the side effects of cancer treatment.

## **To Learn More About Oropharyngeal Cancer**

### **American Cancer Society**

<https://www.cancer.org/>

### **National Cancer Institute**

<https://www.cancer.gov/>

### **National Comprehensive Cancer Network Guidelines for Patients**

<https://www.nccn.org/patients/guidelines/cancers.aspx>

### **MedlinePlus**

<https://medlineplus.gov/>

## **Common Questions**

What does the pathology report say?

What is the stage of my cancer?

What are my goals for treatment?

What are my treatment choices?

What kind of support services are available for me about finances, emotions, spiritual questions, etc.?

My Health Care Team	Contact Information
Surgeon:	
Medical Oncologist:	
Radiation Oncologist:	
Primary Care Doctor:	
Navigator:	
Nurse:	
Registered Dietitian Nutritionist:	
Other	

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