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# Oral Cavity and Oropharyngeal Cancer Early Detection, Diagnosis, and Staging

## Detection and Diagnosis

Finding cancer early, when it's small and hasn't spread, often allows for more successful treatment options. Some early cancers might have signs and symptoms that can be noticed, but that's not always the case.

- [Can Oral Cavity and Oropharyngeal Cancers Be Found Early?](#)
- [Signs and Symptoms of Oral Cavity and Oropharyngeal Cancer](#)
- [Tests for Oral Cavity and Oropharyngeal Cancers](#)

## Stages and Outlook (Prognosis)

After a cancer diagnosis, staging provides important information about the extent of cancer in the body and probable response to treatment.

- [Oral Cavity and Oropharyngeal Cancer Stages](#)
- [Survival Rates for Oral Cavity and Oropharyngeal Cancer](#)

## Questions to Ask Your Cancer Care Team

Here are some questions you can ask your cancer care team to help you better understand your cancer diagnosis and treatment options.

- [What Should You Ask Your Doctor About Oral Cavity and Oropharyngeal Cancers?](#)
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# Can Oral Cavity and Oropharyngeal Cancers Be Found Early?

## Exams of the mouth and finding oral cancer early

There's no routine screening test or program for oral cavity and oropharyngeal cancers. Still, many pre-cancers and cancers in these areas can be found early (when they're small) during routine oral exams by a dentist, doctor, dental hygienist, or by self-exam.

Some dentists and doctors recommend that you look at your mouth in a mirror every month to check for any changes, like white patches ([leukoplakia](#))<sup>1</sup>, sores, or lumps. This is very important if you use or have used tobacco, and/or if you routinely drink alcohol, as these put you at much higher [risk for these cancers](#)<sup>2</sup>.

Regular dental check-ups that include an exam of the entire mouth are important in finding oral and oropharyngeal cancers (and pre-cancers) early.

Along with a clinical exam of the mouth and throat, some dentists and doctors may use special dyes and/or lights to look for abnormal areas, especially if you are at higher risk for these cancers. If an abnormal area is spotted, tests might also be used to help decide if they might be cancer (and need to be biopsied) or to choose the best spot to take tissue from for a biopsy. (See [Tests for Oral Cavity and Oropharyngeal Cancers](#)) Here are some of the tests used most often:

- One method uses a dye called **toluidine blue**. If the dye is spread over an abnormal area, it will turn a darker blue than the areas around it.
- Another method uses fluorescent light. When the light is reflected off abnormal tissue, it looks different from the light reflected off normal tissue.
- If an abnormal area is found, sometimes it can be tested by exfoliative cytology. To do this, the abnormal area is scraped with a stiff brush (brush biopsy). The cells from the scraping are sent to a lab where they are checked to see if there are pre-cancer or cancer cells.

And even though [HPV](#)<sup>3</sup> is a risk factor for oropharyngeal cancers, there is no approved test to screen for HPV in the throat like there is for cervical cancer.

## Hyperlinks

1. [www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/about/what-is-oral-cavity-cancer.html](http://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/about/what-is-oral-cavity-cancer.html)
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# Signs and Symptoms of Oral Cavity and Oropharyngeal Cancer

Oral cavity (mouth) and oropharyngeal (throat) cancers might cause one or more of these signs or symptoms:

- A sore on the lip or in the mouth that doesn't heal
- Pain in the mouth that doesn't go away
- A lump or thickening in the lips, mouth, or cheek
- A white or red patch on the gums, tongue, tonsil, or lining of the mouth
- A sore throat or a feeling that something is caught in your throat that doesn't go

away

- Trouble chewing or swallowing
- Trouble moving the jaw or tongue
- Numbness of the tongue, lip, or other area of the mouth
- Swelling or pain in the jaw
- Dentures that start to fit poorly or become uncomfortable
- Loosening of the teeth or pain around the teeth
- Voice changes
- A lump or mass in the neck or back of the throat
- Weight loss
- Pain in the ear

Many of these signs and symptoms can also be caused by diseases other than cancer, or even by other cancers. Still, it's very important to see a doctor or dentist if any of these conditions last more than 2 weeks so that the cause can be found and treated, if needed.

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# Tests for Oral Cavity and Oropharyngeal Cancers

A doctor or dentist may find some oral cavity and oropharyngeal cancers or pre-cancers during a routine exam, but many of these cancers are found because the person has noticed a [sign or symptom](#) and brought it to their attention. Then, if cancer is suspected, other tests will be needed.

## Tests to find oral cavity or oropharyngeal cancer

The doctor will ask you about symptoms, [possible risk factors](#)<sup>1</sup>, and any other medical problems you may have.

The doctor will look for possible signs of mouth or throat cancer or pre-cancer. These could be bumps or other changed areas on your head, face or neck, or problems with the nerves of the face and mouth. The doctor will look at the entire inside of your mouth, and might feel around in it with a gloved finger. Other tests might be used to look for abnormal areas in your mouth or throat. Some of these tests are described in [Can Oral Cavity and Oropharyngeal Cancers Be Found Early?](#)

### Complete head and neck exam

If there is a reason to think you might have cancer, your doctor will refer you to a specialist. These specialists are oral and maxillofacial surgeons or head and neck surgeons. They are also known as ear, nose, and throat (ENT) doctors or otolaryngologists. The specialist will most likely do a complete head and neck exam, as well as order other exams and tests.

The specialist will pay special attention to the head and neck area, being sure to look and feel for any abnormal areas. This exam will include the [lymph nodes](#)<sup>2</sup> in your neck, which will be felt carefully for any swelling.

Because the oropharynx is deep inside the neck, some parts are not easy to see. The doctor may use mirrors or special fiber-optic scopes to look at these areas. Both of these exams can be done in the doctor's office. The doctor may first spray the back of your throat with numbing medicine to help make the exam easier.

- **Indirect pharyngoscopy and laryngoscopy:** Small mirrors on long, thin handles are used to look at your throat, the base of your tongue, and part of the larynx (voice box).
- **Direct (flexible) pharyngoscopy and laryngoscopy:** A flexible fiber-optic scope (called an [endoscope](#)<sup>3</sup>) is put in through your mouth or nose to look at areas that can't easily be seen with mirrors. It can get a clearer look at areas of change that

were seen with the mirrors and also the part behind the nose (nasopharynx) and the larynx (voice box).

## Panendoscopy

Since tobacco and alcohol use are risk factors for oral cavity and oropharyngeal cancers, as well as cancers of the esophagus and lung, there is a chance (up to 10%) of finding more than one cancer at the same time. To make sure there are no other cancers in the esophagus or lung, a panendoscopy might be done. This procedure is also helpful if it is unclear where the cancer started or if the lymph nodes in the bottom part of the neck seem abnormal.

During a [panendoscopy](#)<sup>4</sup>, the doctor uses different types of endoscopes passed down the mouth or nose to do a laryngoscopy/pharyngoscopy, [esophagoscopy](#)<sup>5</sup>, and (at times) [bronchoscopy](#)<sup>6</sup>. This lets the doctor thoroughly examine the oral cavity, oropharynx, larynx (voice box), esophagus (tube leading to the stomach), and the trachea (windpipe) and bronchi (breathing passages in the lungs).

This exam is usually done in an operating room while you are asleep under general anesthesia. The doctor uses a laryngoscope to look for tumors in the throat and voice box. Other parts of your mouth, nose, and throat are examined, too. The doctor might also use an esophagoscope to look into the esophagus or a bronchoscope to look into the trachea (windpipe) and bronchi.

Your doctor will look at these areas through the scopes to find any tumors, see how big they are, and see how far they might have spread to nearby areas. A small piece of tissue from any tumors or other abnormal areas might be taken out to be looked at closely (biopsied) to see if they contain cancer. Biopsies can be done with special tools that are used through the scopes.

## Biopsy

In a biopsy, the doctor removes a small piece of tissue or a sample of cells, so it can be looked at closely in the lab for cancer cells. A biopsy is the only way to know for sure that oral cavity or oropharyngeal cancer is present. A sample of tissue or cells is always needed to confirm a cancer diagnosis before treatment is started. Several [types of biopsies](#)<sup>7</sup> may be used, depending on each case.

## Exfoliative cytology

For exfoliative cytology, the doctor scrapes the changed area and smears the collected tissue onto a glass slide. The sample is then stained with a dye so the cells can be seen clearly. If any of the cells look abnormal, the area can then be biopsied.

The advantage of this test is that it's easy to do and causes very little pain. This can lead to an earlier diagnosis and a greater chance of treatment being successful if cancer is found. But this method doesn't show all cancers. And sometimes it's not possible to tell the difference between cancer cells and abnormal cells that aren't cancer (such as dysplasia), so a different type of biopsy would still be needed.

### **Incisional biopsy**

For an incisional biopsy, a small piece of tissue is cut from the area that looks abnormal. This is the most common type of biopsy used to check changes in the mouth or throat.

The biopsy can be done either in the doctor's office or in the operating room, depending on where the tumor is and how easy it is to get a good tissue sample. If it can be done in the doctor's office, the area around the tumor will be numbed before the biopsy is done. If the tumor is deep inside the mouth or throat, the biopsy might be done in the operating room while you are in a deep sleep under general anesthesia.

### **Fine needle aspiration (FNA) biopsy**

For a fine needle aspiration (FNA) biopsy, a very thin, hollow needle attached to a syringe pulls out (aspirates) some cells from a tumor or lump. These cells are then looked at closely in the lab to see if cancer is present.

FNA biopsy is not used to sample abnormal areas in the mouth or throat, but it's sometimes used for a neck lump (mass) that can be felt or seen on a [CT scan](#)<sup>8</sup>. FNA can be helpful in some situations, such as:

**Finding the cause of a new neck mass:** An FNA biopsy is sometimes used as the first test for someone with a newly found lump in the neck. It may show that the lump is a benign (not cancer) [lymph node](#)<sup>9</sup> that has grown because of a nearby infection, such as a sinus or tooth infection. In this case, treatment of the infection is all that's needed. Or the FNA may find a benign, fluid-filled cyst that can be cured by surgery. But even when the FNA results are benign, if other symptoms suggest cancer, more tests (such as pharyngoscopy and panendoscopy) are needed.

If the FNA sample has cancer cells, the doctor looking at the biopsy sample can usually tell what type of cancer it is. If the cells look like a squamous cell cancer, more exams

will be done to search for the source of the cancer in the mouth and throat. If the FNA shows a different type of cancer, such as [lymphoma](#)<sup>10</sup> or a cancer that has spread to a lymph node in the neck from another organ (like the [thyroid](#)<sup>11</sup> or [lungs](#)<sup>12</sup>) more tests will be done to find it, and treatment for that type of cancer will be given.

**Learning how far a diagnosed cancer has spread:** FNA also might be done after oral or oropharyngeal cancer has been diagnosed to find out if the cancer has [spread](#) to lymph nodes in the neck. This information will help the doctor decide the best treatment for the cancer.

**Seeing if cancer has come back after treatment:** FNA might be used for people whose cancer has been treated by [surgery](#)<sup>13</sup> and/or [radiation therapy](#)<sup>14</sup>, to find out if a new neck mass in the treated area is scar tissue or cancer that has come back.

### Lab tests of biopsy samples

All biopsy samples are sent to a lab to be checked closely by a pathologist, a doctor who is specially trained to diagnose cancer from a biopsy. The doctor can usually tell cancer cells from normal cells, as well as what type of cancer it is, by the way the cells look. In some cases, the doctor may need to test the cells with special stains to help find out what type of cancer it is.

### *HPV (p16) testing*

For cancers of the throat, the biopsy samples are often tested (for the p16 protein) to see if [HPV](#)<sup>15</sup> infection is present. This is a key part of [staging](#) (finding out if and how much the cancer has spread) and is considered when making [treatment](#)<sup>16</sup> decisions for oropharyngeal cancer. This information can also help the doctor predict the probable course of the cancer, because people whose cancers are linked to HPV tend to do better than those whose cancers are not.

### Imaging tests

Imaging tests are not used to diagnose oral cavity or oropharyngeal cancers, but they may be done for a number of reasons **before** and **after** a cancer diagnosis, including:

- To look at a suspicious area that might be cancer
- To learn how far cancer might have spread
- To help find out if treatment is working
- To look for signs that the cancer has come back (recurred) after treatment

### ***Chest x-ray***

An [x-ray](#)<sup>17</sup> of your chest might be done after oral cavity or oropharyngeal cancer has been diagnosed to see if the cancer has spread to the lungs. More often though, a CT scan or PET/CT scan of the lungs is done since they tend to give more detailed pictures.

### ***Computed tomography (CT or CAT scan)***

A [CT scan](#)<sup>18</sup> uses x-rays to make detailed, cross-sectional images of your body. It can help your doctor see the size and location of a tumor, if it's growing into nearby tissues, if it has spread to lymph nodes in the neck, or to the lungs or other distant organs.

CT-guided needle biopsy: If a lung biopsy is needed to check for cancer spread, this test can also be used to guide a biopsy needle into the mass (lump) to get a tissue sample to check for cancer.

### ***Magnetic resonance imaging (MRI)***

Like CT scans, [MRI scans](#)<sup>19</sup> show detailed images of soft tissues in the body. But MRI scans use radio waves and strong magnets instead of x-rays. A contrast material called gadolinium may be injected into a vein before the scan to get clear pictures. An MRI scan may be done for oral cavity cancer if there are a lot of dental fillings that might distort the CT pictures or to look closely if the cancer is growing into the bone marrow.

### ***Positron emission tomography (PET)***

For a [PET scan](#)<sup>20</sup>, a slightly radioactive form of sugar (known as FDG) is injected into the blood and collects mainly in cancer cells.

PET/CT scan: Often a PET scan is combined with a CT scan using a special machine that can do both scans at the same time. This lets the doctor compare areas of higher radioactivity on the PET with the more detailed picture on the CT scan.

PET/CT scans can be useful:

- If your doctor thinks the cancer might have spread but doesn't know where. They can show spread of cancer to the liver, bones, and some other organs.
- In follow up of patients after oral cavity or oropharyngeal cancer treatment.

### ***Bone scan***

For a [bone scan](#)<sup>21</sup>, a small amount of low-level radioactive material is injected into the blood and collects mainly in abnormal areas of bone. A bone scan can help show if a cancer has spread to the bones. But this test isn't needed very often because PET scans can usually show if cancer has spread to the bones.

### ***Barium swallow***

A [barium swallow](#)<sup>22</sup> can be used to see the lining of the upper part of the digestive system, especially the esophagus (the tube that connects the throat to the stomach). In this test, you drink a chalky liquid called **barium** which coats the walls of your throat and esophagus. A series of x-rays is taken as you swallow. Your doctor may order this test because people with oral and oropharyngeal cancers are at risk for [cancer of the esophagus](#)<sup>23</sup>. It's also useful to see if the cancer is causing problems with swallowing.

### ***Ultrasound***

An ultrasound uses sound waves and their echoes to create images of the inside of the body. A small microphone-like instrument called a transducer gives off sound waves and picks up the echoes as they bounce off organs. The echoes are converted by a computer into an image on a screen.

Neck ultrasound: For this exam, a technician moves the transducer along the skin over your neck. This type of ultrasound can be used to look for lymph nodes in the neck to see if they are swollen or if they look abnormal inside which could be signs of cancer. The ultrasound can help guide a needle into the abnormal lymph node for an FNA biopsy. It might also be used after treatment to look for signs of cancer coming back (recurrence).

## **Quit smoking before oral cavity or oropharyngeal treatment**

It is **very important** to quit smoking before any treatment for oral cavity and oropharyngeal cancer. If you used to smoke cigarettes before being diagnosed, it is important to not start during treatment. Smoking during treatment can cause:

- Poor wound healing, especially after surgery
- More side effects from chemo

- Radiation to not work as well
- A higher chance of getting an infection
- Longer stays in the hospital
- A greater chance of dying.

## Pre-treatment tests for oral cavity or oropharyngeal cancer

Other [tests](#)<sup>24</sup> might be done as part of a work-up if a patient has been diagnosed with oral cavity or oropharyngeal cancer. These tests are not used to diagnose the cancer, but they may be done for other reasons, such as to see if a person is healthy enough for treatments such as [surgery](#)<sup>25</sup>, [radiation therapy](#)<sup>26</sup>, or [chemotherapy](#)<sup>27</sup>.

### Blood tests

No blood test can diagnose cancer in the oral cavity or oropharynx. Still, your doctor may order routine blood tests to get an idea of your overall health, especially before treatment. Such tests can help diagnose poor nutrition and low blood cell counts. A **complete blood count (CBC)** looks at whether your blood has normal amounts of different types of blood cells. For example, it can show if you are anemic (have a low number of red blood cells). **Blood chemistry tests** can help determine how well your liver or kidneys are working.

### Function tests before surgery

If surgery is planned, you might also have an electrocardiogram (EKG) to make sure your heart is working well. Some people having surgery also may need breathing tests, called pulmonary (lung) function tests.

### Dental exam before radiation treatment

If radiation therapy will be part of the treatment, you'll be asked to see a dentist before starting. The dentist will help with routine dental care and may remove any bad teeth, if needed, before radiation treatment is started. Radiation can damage the saliva (spit) glands and cause dry mouth. This can increase the chance of cavities, infection, and breakdown of the jawbone.

If the cancer is in your jaw or the roof of your mouth, a dentist with special training (called a prosthodontist) might be asked to evaluate you. This dentist can make replacements for missing teeth or other structures of the oral cavity to help restore your

appearance; comfort; and ability to chew, swallow, and speak after treatment. If part of the jaw or roof of the mouth (palate) will be removed with the tumor, the prosthodontist will work to ensure that the replacement artificial teeth and the remaining natural teeth fit together correctly. This can be done with dentures, other types of prostheses, or dental implants.

## Hearing tests

Cisplatin, the main chemotherapy drug used in treating oral cavity and oropharyngeal cancer can cause hearing loss. Your care team will most likely have your hearing checked (with an audiogram) before starting treatment to compare to later if you happen to have hearing problems from chemo.

## Nutrition and speech tests

Often, you will have a nutritionist who will evaluate your nutrition status before, during, and after your treatment to try and keep your weight and protein stores as normal as possible. You might also visit a speech therapist who will test your ability to swallow and speak. They might give you exercises to do during treatment to help strengthen the muscles in the head and neck area so you can eat and talk easily after treatment.

## Hyperlinks

1. [www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/causes-risks-prevention/risk-factors.html](http://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/causes-risks-prevention/risk-factors.html)
2. [www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html)
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# Oral Cavity and Oropharyngeal Cancer Stages

After someone is diagnosed with oral cavity or oropharyngeal cancer, doctors will try to figure out if it has spread, and if so, how far. This process is called **staging**. The stage of a cancer describes how much cancer is in the body. It helps determine how serious the cancer is and [how best to treat it](#)<sup>1</sup>. Doctors also use a cancer's stage when talking about survival statistics.

The earliest stage oral cavity or oropharyngeal cancers are called stage 0 (carcinoma in situ). Stages then range from I (1) through IV (4). As a rule, the lower the number, the less the cancer has spread. A higher number, such as stage IV, means cancer has spread more. And within a stage, an earlier letter means a lower stage. Although each person's cancer experience is unique, cancers with similar stages tend to have a similar outlook and are often treated in much the same way.

## How is the stage determined?

The staging system most often used for oral cavity or oropharyngeal cancers is the American Joint Committee on Cancer (AJCC) **TNM** system, which is based on 3 key pieces of information:

- The extent of the **tumor (T)**: How large is the main (primary) **tumor** and which, if any, tissues of the oral cavity or oropharynx it has spread to?
- The spread to nearby lymph **nodes (N)**: Has the cancer spread to nearby [lymph nodes](#)<sup>2</sup>? If so, how many, are they on the same side where the cancer started, and how large are they?
- The spread (**metastasis**) to distant sites (**M**): Has the cancer spread to distant organs such as the lungs?

Numbers or letters after T, N, and M provide more details about each of these factors. Higher numbers mean the cancer is more advanced. Once a person's T, N, and M

categories have been determined, this information is combined in a process called **stage grouping** to assign an overall stage. For more information see [Cancer Staging](#)<sup>3</sup>.

The staging system in the table below is based on the most recent AJCC system, effective January 2018. It uses the **pathologic** stage (also called the **surgical** stage). It's determined by examining the tissue removed during an operation. Sometimes, if surgery isn't possible right away or at all, the cancer will be given a **clinical** stage instead (which is not shown below). This is based on the results of a physical exam, endoscopy exam, biopsy, and imaging tests. The clinical stage will be used to help plan treatment. Sometimes, though, the cancer has spread further than the clinical stage estimates, and it may not predict the patient's outlook as accurately as a pathologic stage.

Oropharyngeal cancers that contain HPV DNA (called p16-positive) tend to have a better outlook than those without HPV (p16-negative). Because p16-positive cancers have a better prognosis than p16-negative oropharyngeal cancers, separate staging systems are used. Both systems are described below.

Cancer staging can be complex, so ask your doctor to explain it to you in a way you understand. **Explore the 3D interactive model here to learn more.**

### Lip, oral cavity, and p16 (HPV)-negative oropharynx cancer stages

| AJCC stage | Stage grouping | Lip, oral cavity and p16 (HPV)-negative oropharynx cancer stage description*<br>(2 cm = about ¾ inch; 3 cm = about 1¼ ; 4 cm = about 1½)   |
|------------|----------------|--|
| 0          | Tis            | The cancer is still within the epithelium (the top layer of cells lining the oral cavity and oropharynx) and has not yet grown into deeper layers.<br><br>It has not spread to nearby lymph nodes (N0) or distant sites (M0). This stage is also known as carcinoma in situ (Tis). |
|            | N0             |  |
|            | M0             |  |
| I          | T1             | The cancer is 2 cm or smaller. It's not growing into nearby tissues (T1). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).   |
|            | N0             |  |
|            | M0             |  |
| II         | T2             | The cancer is larger than 2 cm but no larger than 4 cm . It's not growing into nearby tissues (T2). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).   |
|            | N0             |  |

|            |   |  |
|------------|---|--|
|            | <b>M0</b>                                   |  |
| <b>III</b> | <b>T3</b><br><b>N0</b><br><b>M0</b>         | The cancer is larger than 4 cm (T3). For cancers of the oropharynx, T3 also includes tumors that are growing into the epiglottis (the base of the tongue). It has not spread to nearby lymph nodes (N0) or to distant sites (M0).  |
|            | OR  |  |
|            | <b>T1, T2, T3</b><br><b>N1</b><br><b>M0</b> | The cancer is any size and may have grown into nearby structures if oropharynx cancer(T1-T3) <b>AND</b> has spread to 1 lymph node on the same side as the primary tumor. The cancer has not grown outside of the lymph node and the lymph node is no larger than 3 cm (N1). It has not spread to distant sites (M0).  |
| <b>IVA</b> | <b>T4a</b><br><b>N0 or N1</b><br><b>M0</b>  | <p>The cancer is any size and is growing into nearby structures such as:</p> <ul style="list-style-type: none"> <li>• For lip cancers: nearby bone, the inferior alveolar nerve (the nerve to the jawbone), the floor of the mouth, or the skin of the chin or nose (T4a)</li> <li>• For oral cavity cancers: the bones of the jaw or face, deep muscle of the tongue, skin of the face, or the maxillary sinus (T4a)</li> <li>• For oropharyngeal cancers: the larynx (voice box), the tongue muscle, or bones such as the medial pterygoid, the hard palate, or the jaw (T4a).</li> </ul> <p>This is known as moderately advanced local disease (T4a).</p> <p><b>AND</b> either of the following:</p> <ul style="list-style-type: none"> <li>• It has not spread to nearby lymph nodes (N0)</li> <li>• It has spread to 1 lymph node on the same side as the primary tumor, but has not grown outside of the lymph node and the lymph node is no larger than 3 cm (N1).</li> </ul> <p>It has not spread to distant sites (M0).</p> |
|            | OR  |  |
|            | <b>T1, T2, T3</b>                           | The cancer is any size and may have grown into nearby  |

|     |   |  |
|-----|---|--|
|     | <p>or T4a</p> <p>N2</p> <p>M0</p>           | <p>structures (T0-T4a). It has not spread to distant organs (M0). It has spread to one of the following:</p> <ul style="list-style-type: none"> <li>• One lymph node on the same side as the primary tumor, but it has not grown outside of the lymph node and the lymph node is larger than 3 cm but not larger than 6 cm (about 2½ inches) (N2a) <b>OR</b></li> <li>• It has spread to more than 1 lymph node on the same side as the primary tumor, but it has not grown outside any of the lymph nodes and none are larger than 6 cm (N2b) <b>OR</b></li> <li>• It has spread to 1 or more lymph nodes either on the opposite side of the primary tumor or on both sides of the neck, but has not grown outside any of the lymph nodes and none are larger than 6 cm (N2c).</li> </ul>   |
| IVB | <p>Any T</p> <p>N3</p> <p>M0</p>            | <p>The cancer is any size and may have grown into nearby soft tissues or structures (Any T) <b>AND</b> any of the following:</p> <ul style="list-style-type: none"> <li>• It has spread to 1 lymph node that's larger than 6 cm but has not grown outside of the lymph node (N3a) <b>OR</b></li> <li>• It has spread to 1 lymph node that's larger than 3 cm and has clearly grown outside the lymph node (N3b) <b>OR</b></li> <li>• It has spread to more than 1 lymph node on the same side, the opposite side, or both sides of the primary cancer with growth outside of the lymph node(s) (N3b) <b>OR</b></li> <li>• It has spread to 1 lymph node on the opposite side of the primary cancer that's 3 cm or smaller and has grown outside of the lymph node (N3b).</li> </ul> <p>It has not spread to distant organs (M0).</p> |
|     | <p>OR</p> <p>T4b</p> <p>Any N</p> <p>M0</p> | <p>The cancer is any size and is growing into nearby structures such as the base of the skull or other bones nearby, or it surrounds the carotid artery. This is known as <b>very advanced local disease</b>(T4b). It might or might not have spread to nearby lymph nodes (Any N). It has not spread to distant organs (M0).</p>  |
| IVC | <p>Any T</p> <p>Any N</p>                   | <p>The cancer is any size and may have grown into nearby soft tissues or structures (Any T) <b>AND</b> it might or might not have spread to nearby lymph nodes (Any N). It has spread to distant</p>   |

|  |           |                               |
|--|-----------|-------------------------------|
|  | <b>M1</b> | sites such as the lungs (M1). |
|--|-----------|-------------------------------|

\* The following additional categories are not described in the table above:

- **TX:** Main tumor cannot be assessed due to lack of information.
- **T0:** No evidence of a primary tumor.
- **NX:** Regional lymph nodes cannot be assessed due to lack of information.

### p16 (HPV)-positive oropharynx cancer stages

| AJCC stage | Stage grouping                 | p16 (HPV)-positive oropharynx cancer stage description*   |
|------------|--------------------------------|---|
| I          | T0, T1 or T2<br>N0 or N1<br>M0 | The cancer is no larger than 4 cm (T0 to T2) <b>AND</b> any of the following: <ul style="list-style-type: none"> <li>• It has not spread to nearby lymph nodes (N0) <b>OR</b></li> <li>• It has spread to 1 or more lymph nodes on the same side as the primary cancer, and none are larger than 6 cm (N1).</li> </ul> <p>It has not spread to distant sites (M0).</p>  |
|            | T0, T1 or T2<br>N2<br>M0       | The cancer is no larger than 4 cm (T0 to T2) <b>AND</b> it has spread to 1 or more lymph nodes on the opposite side of the primary cancer or both sides of the neck, and none are larger than 6 cm (N2). It has not spread to distant sites (M0).   |
| II         | OR                             |   |
|            | T3 or T4<br>N0 or N1<br>M0     | The cancer is larger than 4 cm (T3) <b>OR</b> is growing into the epiglottis (the base of the tongue) (T3) <b>OR</b> is growing into the larynx (voice box), the tongue muscle, or bones such as the medial pterygoid plate, the hard palate, or the jaw (T4) <b>AND</b> any of the following: <ul style="list-style-type: none"> <li>• It has not spread to nearby lymph nodes (N0) <b>OR</b></li> <li>• It has spread to 1 or more lymph nodes on the same side as the primary cancer, and none are larger than 6 cm (N1).</li> </ul> |

|            |   |  |
|------------|---|--|
|            |   | It has not spread to distant sites (M0).   |
| <b>III</b> | <b>T3 or T4</b><br><b>N2</b><br><b>M0</b> | The cancer is larger than 4 cm (T3) <b>OR</b> is growing into the epiglottis (the base of the tongue) (T3) <b>OR</b> is growing into the larynx (voice box), the tongue muscle, or bones such as the medial pterygoid plate, the hard palate, or the jaw (T4) <b>AND</b> it has spread to 1 or more lymph nodes on the opposite side of the primary cancer or both sides of the neck, and none are larger than 6 cm (N2). It has not spread to distant sites (M0). |
| <b>IV</b>  | <b>Any T</b><br><b>Any N</b><br><b>M1</b> | The cancer is any size and may have grown into nearby structures (Any T) <b>AND</b> it might or might not have spread to nearby lymph nodes (Any N). It has spread to distant sites such as the lungs or bones (M1).   |

\* The following additional categories are not described in the table above:

- **TX:** Main tumor cannot be assessed due to lack of information.
- **T0:** No evidence of a primary tumor.
- **NX:** Regional lymph nodes cannot be assessed due to lack of information.

## Recurrent (relapsed) cancer

This is not an actual stage in the TNM system. Recurrent (relapsed) cancer means that the cancer has [come back](#)<sup>4</sup> (recurred) after treatment. Recurrent oral cavity or oropharyngeal cancer may return in the mouth or throat (**local** recurrence), in nearby lymph nodes (**regional** recurrence), or in another part of the body, such as the lungs (**distant** recurrence).

Talk with your doctor if you have any questions about the stage of your cancer or how it affects your treatment.

## Hyperlinks

1. [www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/treating.html](http://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/treating.html)
2. [www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html](http://www.cancer.org/treatment/understanding-your-diagnosis/lymph-nodes-and-cancer.html)
3. [www.cancer.org/treatment/understanding-your-diagnosis/staging.html](http://www.cancer.org/treatment/understanding-your-diagnosis/staging.html)

4. [www.cancer.org/treatment/survivorship-during-and-after-treatment/long-term-health-concerns/recurrence.html](http://www.cancer.org/treatment/survivorship-during-and-after-treatment/long-term-health-concerns/recurrence.html)

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# Survival Rates for Oral Cavity and Oropharyngeal Cancer

Survival rates can give you an idea of what percentage of people with the same type and stage of cancer are still alive a certain amount of time (usually 5 years) after they were diagnosed. They can't tell you how long you will live, but they may help give you a better understanding of how likely it is that your treatment will be successful.

**Keep in mind that survival rates are estimates and are often based on previous outcomes of large numbers of people who had a specific cancer, but they can't predict what will happen in any particular person's case. These statistics can be confusing and may lead you to have more questions. Your doctor is familiar with your situation; ask how these numbers may apply to you.**

## What is a 5-year relative survival rate?

A **relative survival rate** compares people with the same type and stage of cancer to people in the overall population. For example, if the **5-year relative survival rate** for a

specific stage of cancer is 90%, it means that people who have that cancer are, on average, about 90% as likely as people who don't have that cancer to live for at least 5 years after being diagnosed.

### Where do these numbers come from?

The American Cancer Society relies on information from the Surveillance, Epidemiology, and End Results (SEER) database, maintained by the National Cancer Institute (NCI), to provide survival statistics for different types of cancer.

The SEER database tracks 5-year relative survival rates for oral cavity and oropharyngeal cancers in the United States, based on how far the cancer has spread. The SEER database, however, does not group cancers by [AJCC TNM stages](#) (stage 1, stage 2, stage 3, etc.). Instead, it groups cancers into localized, regional, and distant stages:

- **Localized:** There is no sign the cancer has spread outside the organ where it started (for example, the lip, tongue, or floor of mouth).
- **Regional:** The cancer has spread to nearby structures or lymph nodes.
- **Distant:** The cancer has spread to distant parts of the body such as the lungs.

### 5-year relative survival rates for oral cavity and oropharyngeal cancers

These numbers are based on people diagnosed with oral cavity or oropharyngeal cancer between 2011 and 2017.

#### Lip

| SEER Stage               | 5-Year Relative Survival Rate |
|--------------------------|-------------------------------|
| Localized                | 93%                           |
| Regional                 | 65%                           |
| Distant                  | 33%                           |
| All SEER stages combined | 91%                           |

## Tongue

| SEER Stage               | 5-Year Relative Survival Rate |
|--------------------------|-------------------------------|
| Localized                | 83%                           |
| Regional                 | 69%                           |
| Distant                  | 41%                           |
| All SEER stages combined | 68%                           |

## Floor of the mouth

| SEER Stage               | 5-Year Relative Survival Rate |
|--------------------------|-------------------------------|
| Localized                | 73%                           |
| Regional                 | 41%                           |
| Distant                  | 23%                           |
| All SEER stages combined | 52%                           |

## Oropharynx

| SEER Stage               | 5-year Relative Survival Rate |
|--------------------------|-------------------------------|
| Localized                | 59%                           |
| Regional                 | 59%                           |
| Distant                  | 28%                           |
| All SEER stages combined | 50%                           |

## Understanding the numbers

- **These numbers apply only to the stage of the cancer when it is first diagnosed.** They do not apply later on if the cancer grows, spreads, or comes back

after treatment.

- **These numbers don't take everything into account.** Survival rates are grouped based on how far the cancer has spread, but your age, overall health, how well the cancer responds to treatment, and other factors will also affect your outlook. Currently, these survival rates are not based on the [p16 \(HPV\) status](#) of the cancer.
- **People now being diagnosed with oral cavity or oropharyngeal cancer may have a better outlook than these numbers show.** Treatments improve over time, and these numbers are based on people who were diagnosed and treated at least five years earlier.

## References

SEER\*Explorer: An interactive website for SEER cancer statistics [Internet]. Surveillance Research Program, National Cancer Institute. [Cited 2021 September 27]. Available from <https://seer.cancer.gov/explorer/>.

Surveillance, Epidemiology, and End Results (SEER) Program ([www.seer.cancer.gov](http://www.seer.cancer.gov)) SEER\*Stat Database: Incidence - SEER Research Data, 18 Registries (2000-2018), National Cancer Institute, DCCPS, Surveillance Research Program, released April 2021, based on the November 2020 submission.

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# What Should You Ask Your Doctor About Oral Cavity and Oropharyngeal Cancers?

It's important to have honest, open discussions with your cancer care team. They want to answer all your questions, so that you can make informed treatment and life decisions.

Other health care professionals, such as nurses, dentists, nutritionists, and social workers, can also answer some of your questions. You can find out more in [The Doctor-Patient Relationship](#)<sup>1</sup>.

Not all of these questions may apply to you, but asking the ones that do may be helpful. Here are some questions to get you started.

### **When you're told you have oral cavity or oropharyngeal cancer**

- What [kind of oral cavity or oropharyngeal cancer](#)<sup>2</sup> do I have?
- Where is my cancer located?
- Has my cancer spread beyond where it started?
- What is the [stage](#) (extent) of my cancer and what does that mean?
- Will I need other [tests](#) before we can decide on treatment?
- Do I need to see other doctors or health professionals?
- Has my cancer been tested for the human papillomavirus (HPV)?
- If I'm concerned about the costs and insurance coverage for my diagnosis and treatment, who can help me?
- Is there a [clinical trial](#)<sup>3</sup> available you think I should know about?

### **When deciding on a treatment plan**

- How much experience do you have treating this type of cancer?
- What are my treatment options? Which do you recommend and why?
- What is the goal of the treatment?
- Will this treatment affect the way I look? If so, what are my options for reconstruction?
- Should I get a second opinion? How do I do that? Can you recommend someone?
- What if I have transportation problems getting to and from treatment?
- What are the chances I can be cured of this cancer with these treatment options?
- How quickly do I need to decide on treatment?
- What should I do to be ready for treatment?
- Will I need a feeding tube before starting treatment?
- How long will treatment last? What will it be like? Where will it be done?
- Will treatment affect my daily activities?
- Can I still work full time?
- What risks and side effects can I expect from the treatments you suggest? How long are they likely to last?

- What are my options if the treatment doesn't work or if the cancer comes back (recurs)?

### **During treatment**

- How will I know if the treatment is working?
- Is there anything I can do to help manage side effects?
- What symptoms or side effects should I tell you about right away?
- How can I reach you on nights, holidays, or weekends?
- Do I need to change what I eat during treatment?
- Are there any limits on what I can do or what I can eat?
- Can I exercise during treatment? If so, what kind should I do, and how often?
- Can you suggest a mental health professional I can see if I start to feel overwhelmed, depressed, or distressed?
- What if I need social support during treatment because my family lives far away?

### **After treatment**

- Will I need a special diet after treatment?
- Are there any limits on what I can do?
- What symptoms should I watch for?
- What kind of exercise should I do now?
- What type of follow-up will I need after treatment?
- How often will I need to have follow-up exams and imaging tests?
- When should my next endoscopy be done?
- Will I need any blood tests?
- How will we know if the cancer has come back? What should I watch for?
- What will my options be if the cancer comes back?
- How can I reach you in an emergency?

Along with these sample questions, be sure to write down some of your own. For instance, you might want more information about recovery times so you can plan your work or activity schedule.

## Hyperlinks

1. [www.cancer.org/treatment/treatments-and-side-effects/choosing-your-treatment-team/the-doctor-patient-relationship.html](http://www.cancer.org/treatment/treatments-and-side-effects/choosing-your-treatment-team/the-doctor-patient-relationship.html)
2. [www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/about/what-is-oral-cavity-cancer.html](http://www.cancer.org/cancer/oral-cavity-and-oropharyngeal-cancer/about/what-is-oral-cavity-cancer.html)
3. [www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html](http://www.cancer.org/treatment/treatments-and-side-effects/clinical-trials.html)

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