NCCN GUIDELINES FOR PATIENTS®

2025

Throat Cancer



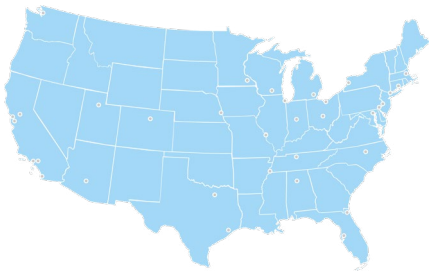
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About the NCCN Guidelines for Patients®

National Comprehensive Cancer Network®



Did you know that top cancer centers across the United States work together to improve cancer care? This alliance of leading cancer centers is called the National Comprehensive Cancer Network® (NCCN®).

Cancer care is always changing. NCCN develops evidence-based cancer care recommendations used by health care providers worldwide. These frequently updated recommendations are the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®). The NCCN Guidelines for Patients plainly explain these expert recommendations for people with cancer and caregivers.

These NCCN Guidelines for Patients are based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Head and Neck Cancers, Version 1.2026 – December 8, 2025.

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About throat cancer

5 What is throat cancer?

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Throat cancer is a type of head and neck cancer that starts in the part of the throat called the oropharynx. The oropharynx includes the back of the roof of the mouth (soft palate), the tonsils, the side and back walls of the throat, and the base of the tongue. This chapter reviews the basics of throat cancer.

What is throat cancer?

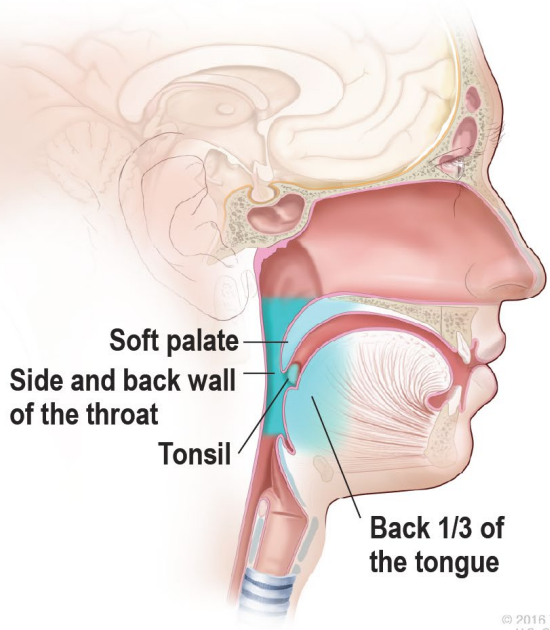
Throat cancer or oropharyngeal cancer is a type of head and neck cancer that affects the part of the throat called the oropharynx. The oropharynx includes the back of the roof of the mouth (soft palate), the tonsils, the side and back walls of the throat, and the base of the tongue found in the throat.

The throat is a hollow, muscular tube inside the neck that starts behind the nose and ends at the top of the trachea (windpipe) and esophagus (the tube that goes to the stomach). The throat acts as a passageway for air to enter the lungs and food and liquid to enter the esophagus. It contains many structures, including the tonsils, pharynx, and larynx.

The oropharynx

The oropharynx includes the back of the roof of the mouth (soft palate), the tonsils, the side and back walls of the throat, and the back (base) of the tongue. This guide will refer to the oropharynx as the throat.

Parts of the Oropharynx



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Throat cancer often starts in squamous cells that form the thin, flat cells of the mucus membranes of the oropharynx. Squamous cell carcinoma is the most common type of throat cancer and is the focus of this guide.

What is the oropharynx?

The oropharynx is part of the pharynx. The pharynx starts behind the nose (nasal cavity) and opens into the voice box (larynx) and esophagus.

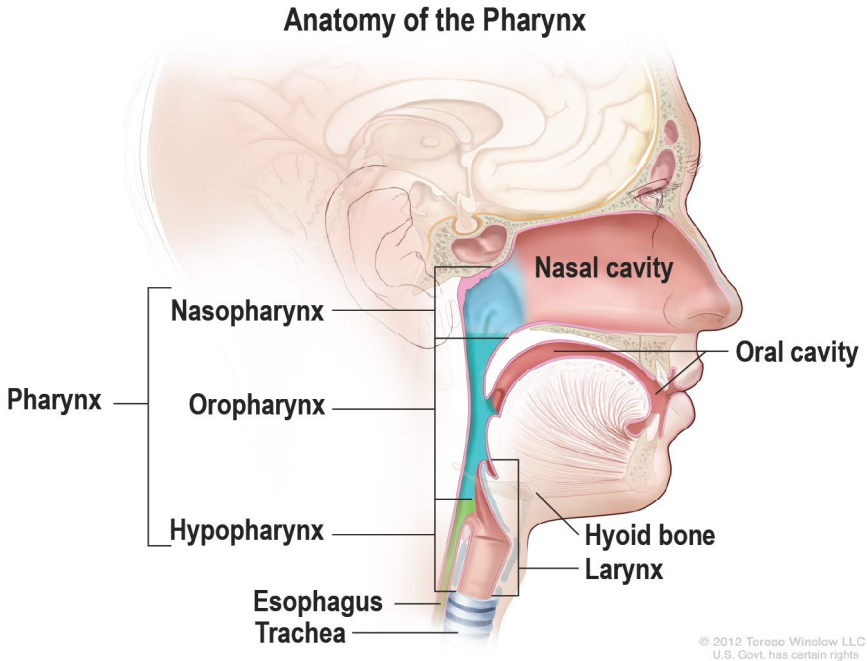
The pharynx (pronounced "fair-inks") has 3 parts:

- **Nasopharynx** – the upper part behind the nasal cavity
- **Oropharynx** – the middle part that includes the tonsils, the side and back walls of the throat, and the base of the tongue
- **Hypopharynx** – the lower part behind the voice box

Cancer can be found in any part of the pharynx. This guide will focus on cancer of the oropharynx and will refer to the oropharynx as the throat. Tumors can grow into nearby tissue and organs, such as the larynx. Cancer cells often spread to lymph nodes in the neck, and less frequently, to the lungs, liver, or spine.

The pharynx

The pharynx is a hollow, muscular tube inside the neck that starts behind the nose and opens into the larynx and esophagus. The pharynx has 3 parts: the nasopharynx, oropharynx, and hypopharynx.



What is head and neck cancer?

Throat cancer or oropharyngeal cancer is a type of head and neck cancer. Head and neck cancers are a group of cancers that arise in the head or neck area of the body. The cancer is named and treated based on the location of the tumor or where the cancer started.

Cancer can occur in the:

- Mouth (oral cavity),
- Middle part of the pharynx near the mouth (oropharynx),
- Space behind the nose (nasal cavity and paranasal sinuses),
- Upper part of the pharynx near the nasal cavity (nasopharynx),
- Voice box (larynx), or
- Lower part of the pharynx near the larynx (hypopharynx).

More information on mouth (oral cavity) cancer and nasopharyngeal cancer can be found at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.





How is throat cancer treated?

Many throat cancers are caused by human papillomavirus or HPV. These cancers are different than cancers that aren't caused by HPV, but treatment may be similar.

Treatment for HPV-related cancers is based on tumor location and if the cancer has spread to nearby lymph nodes or distant sites in the body. Treatment may include surgery by itself or surgery followed by radiation therapy sometimes in combination with drug (systemic) therapy. Other times, surgery is replaced by treatment with radiation therapy or a combination of chemotherapy and radiation therapy, known as chemoradiation. A clinical trial is also an option in many cases.

This guide will discuss in greater detail how throat cancer is diagnosed and treated. It will provide an overview of the types of tests and treatments and what to expect during testing and treatment.

How can I get the best care?

Advocate for yourself. You have an important role to play in your care. Many people feel more satisfied when they actively take part in planning their cancer care.

The NCCN Guidelines for Patients will help you play a larger role in your care. Discuss the recommendations in this guide with your care team. Ask questions about your options and share your goals and concerns.

Don't know what to ask? You're not alone. That's why we include suggested questions to ask at the end of chapters.

Keep reading to find the best care for you.

How this guide can help you

Making decisions about cancer care is stressful. There's a lot to learn, and you don't know what the future holds.

Use this guide to get the information and support you need.

Patients, doctors, and other health care professionals trust the NCCN Guidelines for Patients. This guide uses clear, everyday language to explain current cancer care recommendations made by respected experts in the field. Their recommendations are based on the latest research and practices at leading cancer centers.

Your health is unique to you, so your cancer care should be, too. As you read this guide, you'll learn which treatments are likely to provide the best results for you. And you'll be better prepared to talk with your care team.

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Testing for throat cancer

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21 Questions to ask

Treatment planning starts with testing. Your care team will want to gather as much information as they can about your throat cancer. This chapter presents an overview of the possible tests you might receive and what to expect.

Tests are used to find cancer, plan treatment, and see how your cancer is responding to treatment. Results from a biopsy, blood tests, and imaging studies will be used to determine what treatments are best for your throat cancer. This chapter provides a general overview of some of the tests you might have. Tests to plan treatment can be found in **Guide 1**.

General health tests

Some general health tests are described next.

Medical history

A medical history is a record of all health issues and treatments you've had in your life. It includes past surgeries and current health conditions. Bring a list of old and new medicines and any over-the-counter

Guide 1
Tests for treatment planning

Biopsy of main tumor and any involved lymph nodes
Tumor HPV testing by p16
Medical history, tobacco and alcohol use history, and physical exam, including complete head and neck exam. Mirror and fiberoptic exam if needed. Screening for distress.
CT scan with contrast and/or MRI with or without contrast of main tumor and neck
As needed: • Endoscopy • Other imaging tests such as PET scan • Dental exam • Nutrition, speech, and swallowing evaluation, and hearing test (audiogram) • Help to quit smoking • Fertility counseling • Screening for hepatitis • PD-L1 tumor testing

medicines, herbals, or supplements you take. Some supplements interact with and affect medicines that your care team may prescribe. Also, tell your care team about any symptoms you have.

Tobacco and alcohol use history

Tobacco and alcohol use are known risk factors for developing head and neck cancer and can limit how well treatment works. It can also affect survival.

You'll be asked about your tobacco and alcohol use history and asked to avoid tobacco and limit alcohol use during treatment. Speak to your care team if you have any questions or concerns.

Family history

Head and neck cancers are generally not inherited from your biological (birth) parents. However, some risk factors and other diseases can run in families. Your doctor will ask about the health history of family members who are blood relatives. This information is called a family history.

Ask family members on both sides of your family about their health issues like heart disease, cancer, and diabetes, and at what age they were diagnosed. It's important to know the specific type of cancer, where the cancer started, if it's in multiple locations, and if they had genetic testing.



If you smoke or vape, seek help to quit

Smoking or vaping nicotine greatly increases your chances of having side effects during and after surgery. Smoking and vaping can limit how well cancer treatment works and prevent wound healing. They also increase your chances of developing other cancers. Cannabis use might also affect the amount of anesthesia used during surgery.

Nicotine is the chemical in tobacco that makes you want to keep smoking and vaping. Nicotine withdrawal is challenging for most people who smoke or vape. The stress of having cancer may make it even harder to quit. If you smoke or vape, ask your care team about counseling and medicines to help you quit.

More information can be found in the *NCCN Guidelines for Patients: Quitting Smoking* at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

For online support, try these websites:

- SmokeFree.gov
- CDC.gov/tobacco

Physical exam

During a physical exam, your health care team may:

- Check your temperature, blood pressure, pulse, and breathing rate
- Check your height and weight
- Listen to your lungs and heart
- Look in your eyes, ears, nose, and throat
- Feel and apply pressure to parts of your body to see if organs are of normal size, are soft or hard, or cause pain when touched.
- Feel for enlarged lymph nodes in your neck.

Complete head and neck exam

A physical exam will include the head and neck. Since some parts of the mouth and throat aren't easy to see when you open your mouth, a health care provider might feel inside your mouth and use a special mirror or fiberoptic scope to look inside the mouth and throat.

Dental exam

Head and neck cancer and its treatment can affect the health of your jaw, teeth, and gums. It's important to tell your dentist about your head and neck cancer and to have more frequent dental cleanings and checkups. If you need any dental work or procedures, you might be asked to have it done before starting certain treatments.

Specialized dentists, such as dental oncologists and maxillofacial prosthodontists, focus on people with cancer. Ask your oncologist if they can recommend a dental expert who's associated with a comprehensive cancer center.

Distress screening

Dealing with a cancer diagnosis can be stressful and may cause further distress. Distress is an unpleasant experience of a mental, physical, social, or spiritual nature. It can affect how you feel, think, and act. Distress might include feelings of sadness, fear, helplessness, worry, anger, and guilt. You may also experience depression, anxiety, and sleep disorder issues. Your treatment team will screen your level of distress. This is part of your cancer care.

Endocrine tests

Radiation therapy to the head and neck can affect endocrine (hormone) glands found in the head and neck, such as thyroid and pituitary glands. Therefore, blood tests to look at thyroid endocrine levels might be done before and/or after treatment.

Hearing test

Tumors in the head and neck can affect hearing. Treatment of these tumors can also affect hearing. A hearing test shows if there's any hearing loss, and if so, the type of hearing loss, how severe it is, and what might have caused it.

Hepatitis virus screening

Hepatitis virus infections can affect the liver. A hepatitis blood test will show if you had hepatitis in the past or if you have it today. Some cancer treatments can wake up (or reactivate) the virus. If this happens, it can harm the liver.

Nutrition assessment

You might meet with a nutrition expert before starting treatment. A nutritionist or dietitian can suggest the best foods and fluids for your situation. You might be asked to see a nutrition expert before starting treatment to help prevent severe weight loss and nutrition imbalance.

Performance status

Performance status is a rating of a person's general level of fitness and ability to perform daily self-care tasks. It's one factor taken into consideration when choosing a treatment plan.

Pre-anesthesia exam

Anesthesia keeps you from feeling pain and remembering what happened during surgery or other procedures. A pre-anesthesia assessment will be done by the anesthesiologist, a doctor who specializes in giving anesthesia. The assessment will include a physical exam of your throat and airway. You'll be asked questions about your medical history, past surgery experiences, if you've had any allergies to drugs or medicines, your understanding of the procedure, and how your appearance and function might change after surgery.

Head and neck cancer surgery is complex. It's further complicated by other health conditions, airway and swallowing issues, tobacco and alcohol use, and tumor location. Being prepared and knowing what to expect after surgery will help prevent severe complications.

Speech and swallowing assessment

You might visit with a speech therapist who will test your ability to swallow and/or speak before and after treatment.

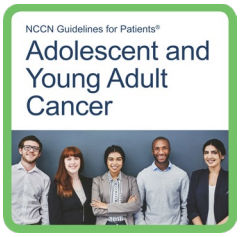
"Rely on your instincts. If you have a concern—big or small—act on it! Even though I was scared of the unknown, I got checked and did it as quickly as possible."

Fertility (all genders)

Treatment with systemic drug therapy can affect fertility, or the ability to have children. If you think you want children in the future, ask your care team how cancer and cancer treatment might affect your fertility.

Fertility preservation is all about keeping your options open, whether you know you want to have children later in life or aren't sure at the moment. Fertility and reproductive specialists can help you sort through what may be best for your situation.

More information on fertility preservation can be found at *NCCN Guidelines for Patients: Adolescent and Young Adult Cancer* at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Preventing pregnancy during treatment

Preventing pregnancy during treatment is important. Cancer treatment can affect the ovaries, damage sperm, and hurt a developing baby. Therefore, becoming pregnant or having one's partner become pregnant during treatment should be avoided. If you're pregnant or breastfeeding at the time of your cancer diagnosis, treatments may need to be adjusted.

p16 (HPV) testing

For throat cancer, tumor samples are tested for the p16 protein to see if HPV (human papillomavirus) infection is present. This is a key part of diagnosis and treatment planning. Cancers that are linked to HPV tend to respond better to treatment. p16 testing is different than HPV testing. p16 is used as a surrogate (substitute) marker for HPV infection because p16 usually increases in cancer cells when HPV is present.

HPV

HPV (human papillomavirus) is a group of viruses that infect the cells on the surface of the skin or on the moist surfaces or inner linings of some organs and body cavities, such as the cervix, vagina, vulva, penis, anus, mouth, and throat. HPV is generally passed by sexual contact. The body typically clears HPV infections in about 9 out of 10 people. However, HPV infections can cause abnormal tissue growth (non-cancerous warts) and cancer. Cancer caused by HPV is called HPV-related cancer.

HPV is the main cause of squamous cell carcinomas of the throat (oropharynx), particularly cancers of the tonsils and base of the tongue. There are many different types of HPV. HPV type 16 is responsible for 9 out of 10 throat cancers. The remaining cancers are caused by HPV18, 33, and 35. HPV-positive (HPV+) throat cancer is a distinct disease with specific tumor features that can be targeted during treatment.

p16

HPV16 is detected using a test to look for p16. p16 is a protein that slows cell division. It's produced by a gene located on chromosome 9 (shown as 9p21.3). Human cells have 23 pairs of chromosomes or 46 chromosomes in total.

Testing to look for the presence (expression) of p16 is called biomarker testing. p16 can be found in cancers such as throat, cervical, vulvar, melanoma, and esophageal. When too much (overexpression) p16 is found in throat cancer, it means that the cancer is usually caused by HPV.

HPV testing by p16 is recommended for everyone diagnosed with throat (oropharyngeal) cancer.

Cancer of unknown primary

If squamous cell cancer is detected in a lymph node(s) in your neck, but no primary (main) tumor is initially found in your throat (base of tongue or tonsil), then you might have a cancer of unknown primary location. The cancer from a lymph node biopsy will be tested for p16.

- If the cancer tests positive for p16 (p16+), then your tumor will be tested for HPV.
- If positive for HPV (p16+/HPV+), then you will be treated the same as those who have HPV+ primary cancers that arise in the tonsils or base of the tongue. Most of the cancers found here are too small to be seen on imaging scans. Usually, surgery is needed to confirm cancer.
- If negative for HPV (p16+/HPV-), then you likely have cancer in your throat or voice box region. Tests will be done to confirm.
- In rare cases, p16+ or p16- cancer can show up as skin cancer. Squamous cell skin cancers are most often p16+ but not caused by HPV.

Imaging tests

Imaging tests take pictures of the inside of your body. They show the primary tumor, or where the cancer started, and look for cancer in other parts of the body. A radiologist, a doctor who's an expert at interpreting imaging tests, will send a report of the imaging test results to your care team.

The following information isn't in order of importance. You'll likely have a combination of imaging tests.

Contrast material

Contrast material is a substance used to improve the quality of imaging tests such as CT and MRI scans. It's used to make the pictures clearer. Not all imaging tests require contrast, but many do.

Contrast might be taken by mouth (oral) or given through a vein (intravenously or IV). Oral contrast will be passed with your next bowel movement. IV contrast will leave the body in the urine immediately after the test. The types of contrast vary and are different for CT and MRI.

Tell your care team if you've had allergic reactions to contrast in the past. This is important. You might be given medicines to avoid the effects of those allergies. Contrast might not be used if you have a serious allergy or if your kidneys aren't working well.

CT scan

A CT or CAT scan uses x-rays and computer technology to take pictures of the inside of the body. It takes many x-rays of the same body part from different angles. You may have a CT scan of your head, neck, and chest to look for cancer. In most cases, contrast will be used.

CT machine

A CT machine is large and has a tunnel in the middle. During the test, you will lie on the table that moves slowly through the tunnel.



MRI scan

An MRI scan uses radio waves and powerful magnets to take pictures of the inside of the body. It doesn't use x-rays, which means there's no radiation delivered to your body during the test. Because of the very strong magnets used in the MRI machine, tell the technologist if you have any metal or a pacemaker in your body. During the test, you'll likely be asked to hold your breath for 10 to 20 seconds as the technician collects the images.

MRI scans take longer to perform than CT scans. A closed MRI has a capsule-like design where the magnet surrounds you. The space is small and enclosed. An open MRI has a magnetic top and bottom, which allows for an opening on each end. Closed MRIs are more common than open MRIs, so if you have claustrophobia (a dread or fear of enclosed spaces), be sure to tell your care team about it.

PET scan

A PET scan uses a radioactive substance called a tracer that's injected into a vein. On the scan, the tracer shows where cancer cells are in the body and how much sugar is being taken up by the cancer cells. This gives an idea about how fast the cancer cells are growing.

Cancer cells show up as bright spots on PET scans. However, not all tumors will appear on a PET scan. Also, not all bright spots are cancer. It's normal for the brain, base of the tongue or tonsil lymphoid tissue, heart, kidneys, and bladder to be bright on PET. Inflammation or infection can also show up as a bright spot.

"Cancer treatment is a process. If you have to go through the process, stay positive, go easy on yourself, and take things a day at a time. It's remarkable what a treatment course can do, and the weeks, months, and even years go by very quickly if taken in small pieces."



When a PET scan is combined with CT, It's called a PET/CT scan.

- **An FDG-PET** uses a radiotracer called fluorodeoxyglucose (FDG). This scan is most helpful when other imaging results are unclear.

Ultrasound

Ultrasound uses high-energy sound waves to form pictures of the inside of the body. This is similar to the sonogram used for pregnancy. A wand-like probe (transducer) will be held on your neck and moved using gel. Ultrasound doesn't use x-rays, so it can be repeated as needed.

Panoramic dental x-ray

A panoramic dental x-ray (Panorex) uses a very small dose of radiation to capture the entire mouth in one image, including the teeth, upper and lower jaws, and surrounding structures and tissues. It's commonly performed by dentists and oral surgeons in everyday practice and may be used to plan treatment for dentures, braces, extractions, and implants. If a particular tooth shows more concern, the dentist may order a different x-ray called a periapical radiograph that can better and more closely assess the tooth.

Scoping procedures

Some imaging tests use a thin, tube-shaped tool called an endoscope that's inserted into the mouth or nose to examine the oropharynx and take pictures. One end of the scope has a small light and camera lens to see inside your body. The image is sent to a television or computer monitor. This will also help guide your doctor in performing a biopsy.

More than one type of scope may be used for imaging tests. Endoscopy might be used to determine the size and spread of tumor and to take a tumor sample. Before an endoscopy, you'll be given a topical spray to numb the throat.

Some possible endoscopies are described next. You might not have an endoscopy.

Fiberoptic nasopharyngolaryngoscopy

Fiberoptic nasopharyngolaryngoscopy is used to examine the larynx (voice box) and nearby structures. It is done while you are awake with a topical spray to make you more comfortable.

Laryngoscopy and nasolaryngoscopy

Laryngoscopy is an exam of the back of your throat, including your voice box (larynx) or behind your voice box (hypopharynx). It uses a laryngoscope, which is a thin, long tube fitted with a fiberoptic light. Your voice box contains your vocal cords and allows you to speak. A laryngoscope is used to look for tumors in the throat and voice box (larynx) and hypopharynx.

Laryngoscopy may be done in different ways:

- **Indirect laryngoscopy** uses a small mirror held at the back of your throat. The doctor shines a light on the mirror to view the throat area. Medicine to numb the back of your throat may be used.
- **Fiberoptic laryngoscopy (nasolaryngoscopy)** uses a small flexible scope passed through your nose and into your throat. Numbing medicine will be sprayed in your nose. This procedure typically takes less than 1 minute.
- **Direct laryngoscopy** is a more detailed exam performed under general anesthesia in an operating room. It uses a scope called a laryngoscope placed in the back of your throat. This procedure allows the doctor to see deeper in the throat and take a tissue sample for a biopsy. The purpose of direct laryngoscopy is to identify the primary (main) tumor and determine if it's resectable (can be removed with surgery).

Biopsy

A biopsy is the removal of a sample of tumor tissue or group of cells for testing. It's an important part of an accurate diagnosis. A pathologist, a doctor who identifies diseases by studying cells and tissues, will examine the biopsy sample and note the overall appearance and the size, shape, and type of cells. This is called histology or histopathology. Lab tests are done on the tumor after it's removed.

There are different types of biopsies used for throat cancer. A fine-needle aspiration, fine-needle biopsy, and core needle biopsy use needles of different sizes to remove a sample of tumor or lymph node. An ultrasound or CT scan might be used to guide a lymph node biopsy.

Biopsy of metastasis

Metastasis is the spread of throat cancer to an area of the body outside of the neck such as the lung or distant lymph nodes. A biopsy of the metastasis may be needed to confirm the presence of cancer. If there's more than one metastasis, each site may be biopsied. The type of biopsy used depends on the location of the suspected metastases and other factors.

Biomarker testing

A sample from a biopsy of your tumor or lymph node may be tested to look for gene mutations, protein levels, or other molecular features. It's sometimes called molecular testing or tumor profiling, tumor sequencing, gene expression profiling, or genomic testing. These tests are generally used in advanced or widely spread (metastatic) head and neck cancers.

MSI-H/dMMR mutation

Microsatellites are short, repeated strings of DNA. When errors or defects occur, they are fixed by mismatch repair (MMR) proteins. Some cancers have DNA mutations or changes that prevent these errors from being fixed. This is called microsatellite instability (MSI) or mismatch repair deficiency (dMMR). When cancer cells have more than a normal number of microsatellites, it's called MSI-H (microsatellite instability-high). This is often due to dMMR genes.

PD-L1 testing/CPS score

PD-L1 is an immune protein that activates your immune system to better fight off the cancer cells. If this protein is found (expressed) on the surface of cancer cells, it can cause your immune cells to ignore the cancer and suppress the anti-tumor immune response. PD-L1 expression is measured using a combined positive score (CPS), which measures the immune proteins in your tumor and your immune system.

Tumor p16 (HPV) testing

HPV testing by p16 is recommended for everyone diagnosed with throat (oropharyngeal) cancer. It's used to learn more information about your cancer. Testing will be done on a biopsy of your tumor from either your throat, a lymph node, or other sites in your body if needed.

Tumor mutational burden

When there are 10 or more mutations per million base pairs of tumor DNA, it's called tumor mutational burden-high (TMB-H). Metastatic or unresectable TMB cancers are often treated using immunotherapy such as pembrolizumab that targets the proteins called PD-1 and PD-L1.

Tumor mutation testing

A sample of your tumor or blood may be used to see if the cancer cells have any specific DNA mutations (somatic mutations). This is a different type of DNA testing than the genetic testing for mutations you may have inherited from your birth parents (germline mutations). In tumor mutation testing, only the tumor is tested and not the rest of your body.

Key points

- Results from a biopsy, blood tests, and imaging studies will be used to determine what treatments are best for your throat cancer.
- Head and neck cancer and its treatment can affect the health of your jaw, teeth, and gums. Tell your dentist about your head and neck cancer as soon as you learn about it and keep up with regular dental cleanings and checkups.
- Treatment can affect fertility. Talk to your care team about your concerns and if you're planning a pregnancy now or in the near future.
- Imaging tests take pictures of the inside of your body and are used to learn more about the type, size, and location of your tumor.
- A biopsy is the removal of a sample of tissue or group of cells for testing. Lab tests will be done on the biopsied cells.
- Smoking or heavy alcohol use will affect your treatment outcomes and increase treatment toxicity. It's strongly recommended you seek help to stop smoking or vaping.

Questions to ask

- What tests will I have?
- Will my insurance pay for these tests?
- What tests will be done on the tumor and lymph nodes?
- Who will explain the test results to me?
- What other information do you need to gather before I start treatment?

What's next?

Now that you've learned about the different types of tests you might receive, the next chapter will discuss how throat cancer is staged. Staging is part of treatment planning.

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Throat cancer staging

23 How is throat cancer staged?

23 TNM scores

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27 p16+ (HPV+) throat cancer stages

28 Key points

28 Questions to ask

Cancer staging is used to guide treatment decisions. It describes the size and location of the tumor and if cancer has spread to lymph nodes or other parts of the body. Testing for p16 (HPV) is an important part of staging. This chapter explains throat cancer stages.

How is throat cancer staged?

A cancer stage is a way to describe the cancer at the time you're first diagnosed. Based on testing, your cancer will be assigned a stage. Staging helps to predict prognosis and is needed to make treatment decisions. A prognosis is the course your cancer will likely take.

Throat cancer staging is often done twice, before and after a biopsy or surgery to remove the tumor and lymph nodes.

Information gathered during staging:

- **Size and location of the tumor (T):** Where's the tumor located? How large is the tumor? Has it grown into nearby areas?
- **Spread to nearby lymph nodes (N):** Has cancer spread to nearby lymph nodes? If so, how many? Where?
- **Spread (metastasis) to distant sites (M):** Has cancer spread to distant organs such as the lungs or liver?
- **Grade of cancer (G):** How much do the cancer cells look like normal cells?
- **Biomarker testing:** Does the cancer have any genes, proteins such as p16, or mutations that might suggest treatment?

Staging is based on a combination of information to reach a final numbered stage. Often, not all information is available at the initial evaluation. More information can be gathered as treatment begins.

TNM scores

The tumor, node, and metastasis (TNM) system is used to stage throat cancer. In this system, the letters T, N, and M describe different areas of cancer growth. Based on test results, a score or number is assigned to each letter. The higher the number, the larger the tumor or the more the cancer has spread. These scores will be combined to assign the cancer a stage. A TNM example might look like this: T1N0M0 or T1, N0, M0.

T = Tumor

T describes the size of the main (primary) tumor and if the tumor has grown into nearby tissue (tumor extension). Tumor size is measured in centimeters (cm) or millimeters. A golf ball is 4 cm and a pea is 1 cm.

N = Regional lymph node

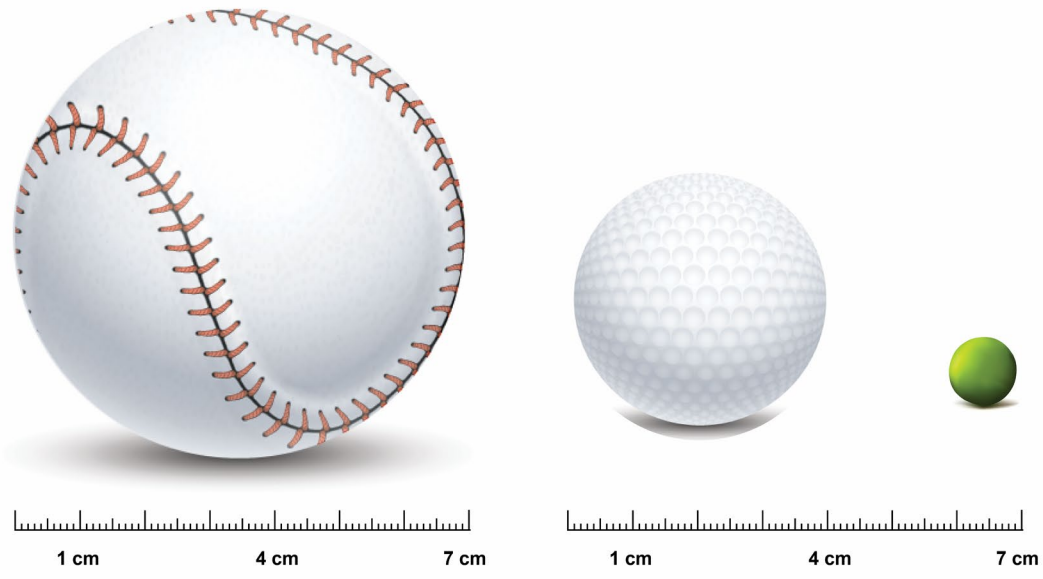
There are hundreds of lymph nodes throughout your body. They work as filters to help fight infection and remove harmful things from your body. The head and neck contain a network of more than 300 nodes. They are bound together with muscles, nerves, blood vessels, and lymph vessels. Throat cancer can spread to nearby lymph nodes in the head and neck.

Regional lymph nodes are found near the tumor. Cancer found in a regional lymph node is a lymph node metastasis. This is different than a distant metastasis, which is found outside the neck (in the lungs, for example). When cancer has grown through and spreads outside of the lymph node, it's referred to as extranodal extension (ENE) or extranodal extension-positive (ENE+). When cancer hasn't spread outside the lymph node it is extranodal extension-negative (ENE-).

M = Metastasis

A metastasis is cancer that has spread to distant parts of the body. The most common site for metastasis is the lymph nodes outside the head and neck. Other common areas are the lungs and bones. Biopsy of a metastasis depends on the location and size.

Head and neck tumors are measured in centimeters: For comparison, a baseball is 7 cm, a golf ball is 4 cm, and a pea is 1 cm.



Tumor grade

Another factor used in staging is the tumor grade. Grade describes how abnormal the tumor cells look under a microscope (called histology). Higher-grade cancers tend to grow and spread faster than lower-grade cancers. GX means the grade can't be determined, followed by G1, G2, G3, and G4.

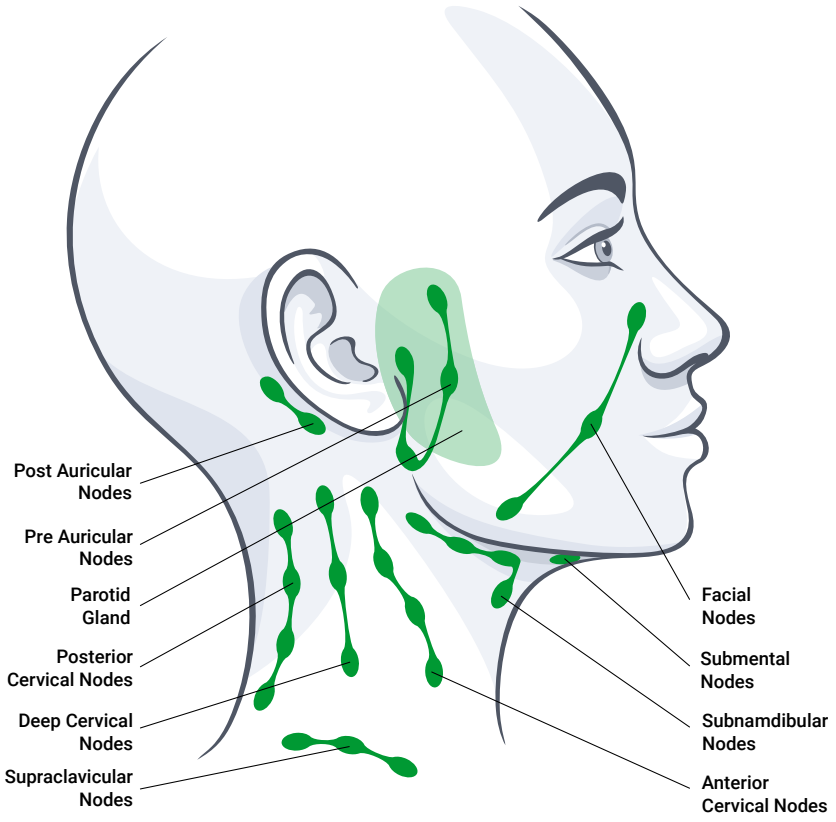
- G4 is the highest grade for p16- (HPV-) throat cancer.
- No grading system exists for p16+ (HPV+) throat cancer.

Numbered cancer stages

Numbered cancer stages are based on TNM scores. Stages range from stage 0 to stage 4, with 4 being the most advanced. They might also be written as stage 0, stage I, stage II, stage III, and stage IV.

Lymph nodes in the head and neck

There are over 300 lymph nodes in the head and neck. If head and neck tumors spread, they most commonly spread to nearby lymph nodes.



p16- (HPV-) throat cancer stages

Here are the general stages for p16- (HPV-) throat cancer:

- **Stage 0** – This is carcinoma in situ, meaning that cancerous cells are found only in the epithelium (squamous cell layer) of the throat.
- **Stage 1 (early-stage throat cancer)** – Tumor is 2 centimeters (cm) or less. Cancer isn't in any lymph nodes.
- **Stage 2 (early-stage throat cancer)** – Tumor is between 2 and 4 cm. Cancer isn't in any lymph nodes.
- **Stage 3 (locally advanced throat cancer)** – Tumor is larger than 4 cm or has grown into the epiglottis flap that closes the airway to the windpipe (trachea). Cancer might be in 1 lymph node on the same side of the neck as the tumor. Cancer in the lymph node is smaller than 3 cm.
- **Stage 4A (locally advanced throat cancer)** – Tumor has spread to areas such as the larynx, muscles of the tongue and jaw, roof of the mouth (hard palate), or jawbone. Cancer is in more than 1 lymph node and is smaller than 6 cm. Cancer hasn't grown outside of the lymph nodes.
- **Stage 4B (very advanced throat cancer)** – Tumor has spread to areas such as the muscles and bones that control chewing, the nasopharynx, the base of the skull, or the carotid artery. Cancer in lymph nodes is larger than 6 cm or may have grown outside of the lymph nodes, called extranodal extension (ENE).
- **Stage 4C (metastatic throat cancer)** – Cancer has spread outside of the head and neck to other parts of the body, such as the lungs or distant lymph nodes.

p16+ (HPV+) throat cancer stages

Here are the general stages for p16+ (HPV+) throat cancer:

- **Stage 1 (early-stage throat cancer)** – Tumor is 2 centimeters (cm) or less. Cancer might be in lymph nodes on the same side of the neck. Cancer in lymph node is 3 cm or less.
- **Stage 2 (early-stage throat cancer)** – Tumor is between 2 and 4 cm. Cancer might be in lymph nodes on any side of the neck. Cancer in lymph nodes is smaller than 6 cm.
- **Stage 3 (locally advanced throat cancer)** – Tumor is larger than 4 cm or has grown into the epiglottis flap that closes the airway to the windpipe (trachea) or other nearby structures. Cancer might be in multiple lymph nodes on any side of the neck or larger than 6 cm.
- **Stage 4 (metastatic throat cancer)** – Cancer has spread outside of the head and neck to other parts of the body, such as the lungs or distant lymph nodes.

Throat cancer staging

An important part of throat cancer staging includes tumor testing for the p16 protein. When too much (overexpression) p16 is found in throat cancer, it means that the cancer is usually caused by HPV (human papillomavirus).

HPV type 16 (HPV16) is responsible for most types of throat cancer. HPV16 is detected using a test to look for p16.

- **p16-negative (p16-)** throat cancer isn't caused by HPV. It's HPV-negative (HPV-).
- **p16-positive (p16+)** throat cancer is usually caused by HPV. This is called HPV-related or HPV-mediated cancer. p16+ throat cancer can be HPV-.
- **HPV-positive (p16-)** throat cancer that is p16- is very rare and not related to HPV. These cancers are treated like p16- cancers.

Key points

- A cancer stage is used to guide treatment decisions.
- Staging describes the size and location of the tumor and if cancer has spread to lymph nodes, organs, or other parts of the body.
- In throat cancer, tumor testing for p16 (HPV) is an important part of staging. When too much (overexpression) p16 is found in throat cancer, it means that the cancer is usually caused by human papillomavirus (HPV).
- Tumors that test positive for p16 (p16+) are staged and treated differently than tumors that test negative for p16 (p16-).
- Head and neck cancers often spread to nearby neck (cervical) lymph nodes. Throat cancer can spread to lymph nodes on both sides of the neck.
- Throat cancer can spread outside of the head and neck to other parts of the body, such as the lungs or distant lymph nodes.

Questions to ask

- What stage is my cancer?
- Is my cancer early stage, locally advanced, very advanced, or metastatic?
- Is cancer in any other areas like my lymph nodes or lungs?
- Did the tumor test positive for p16 and/or HPV?
- What does the cancer stage mean in terms of length of survival and quality of life?

What's next?

The next chapter provides an overview of treatment options and what to expect.

4
Types of treatment

30 Your care team

31 Surgery

33 Systemic therapy

35 Radiation therapy

36 Clinical trials

38 Key points

38 Questions to ask

This chapter describes an overview of treatment options and what to expect. Together, you and your care team will choose a treatment plan that's best for you.

Results from imaging studies, biopsy, and tumor p16 (HPV) testing will be used to determine a treatment plan for your cancer stage.

Your care team

Those with head and neck cancer should seek treatment at experienced cancer centers.

Treating cancer takes a team approach. Treatment decisions should involve a multidisciplinary team of health care and psychosocial care professionals from different backgrounds who have knowledge and experience in your type of cancer. This team is united in the planning and implementation of your treatment. Ask who will coordinate your care.

Some members of your care team will be with you throughout cancer treatment, while others will only be there for parts of it. Get to know your care team and help them get to know you.



Your care team

Treatment for head and neck cancers is complex. Depending on the type and location of the tumor, your care team might include some of the following specialists.

- **Otolaryngologist** is a doctor who diagnoses and treats disorders of the ear, nose, and throat (ENT).
- **Oncologist** is a doctor who diagnoses and treats cancer. Types of oncologists include dental, medical, radiation, and surgical oncologists.
- **Head and neck surgeon, otolaryngologist, or surgical oncologist** can perform operations to remove cancer in the throat.
- **Physical medicine and rehabilitation** help to improve function and quality of life for those with throat cancer. It might include physical therapy, speech-language and swallowing therapy, pain management, or treatment for swelling of the neck.
- **Nutritionists and dietitians** can suggest foods to support recovery and to manage side effects of treatment.

Surgery

Surgery is an operation or procedure to remove cancer from the body. When preparing for surgery, you should seek the opinion of an experienced head and neck surgeon, otolaryngologist, or surgical oncologist with expertise in head and neck cancer. The surgeon should be an expert in performing your type of surgery. Hospitals that perform many surgeries often have better results. You can ask for a referral to a hospital or cancer center that has experience in treating your type of cancer.

The removal of the cancer through surgery can be accomplished in different ways depending on the specific circumstances, such as the size and location of the tumor, whether there's cancer in any surrounding organs and tissues, and your unique anatomy. Surgery is based on the safest and best way to remove cancer.

When planning for surgery, you should ask how your breathing, swallowing, speaking, chewing, and appearance might be affected. Sometimes nerves might need to be cut and sewn back together or removed as part of cancer surgery. Lymph nodes are often removed. This is the time to ask how your neck and face might look after surgery.

Goal of surgery

The goal of surgery is to remove all of the cancer and maximize your ability to function, such as chew, swallow, breathe, and speak.

During surgery, the tumor is removed along with a rim of normal-looking tissue around its edge called the surgical margin. The surgical margin may look normal but cancerous cells may still be present.

Standard of care is the best-known way to treat a particular disease based on past clinical trials. There may be more than one treatment that's considered standard of care. Ask your care team what treatment options are available and if a clinical trial might be right for you.



A clear or negative margin is when no cancer cells are found in the tissue around the edge of the tumor. In a positive margin, cancer cells are found in normal-looking tissue around the tumor. Your surgeon will look carefully for cancer not only along the surgical margin, but in other nearby areas. Despite best efforts, it's not always possible to find all of the cancer. Sometimes, surgeons can't safely remove the tumor with a cancer-free margin. Surgery often includes removal of lymph nodes.

You may have more than one surgery. Surgery may also include rebuilding or reconstructing any tissues that may have been removed.

After surgery, you may receive treatment such as radiation or systemic (drug) therapy to kill any remaining cancer cells. Treatment after surgery is called adjuvant treatment or adjuvant therapy.

Tumor resection

Surgery to remove the entire tumor is called tumor resection. Sometimes, the whole tumor can't be removed. It depends on the tumor location, what structures are involved, how close the tumor is to vital organs, and how function (such as swallowing and speaking) will be affected. The removal of lymph nodes is often part of cancer surgery.

Everyone with head and neck cancer should meet with a surgeon who's an expert in head and neck cancer before starting treatment.

Lymph node surgery

The head and neck contain a network of more than 300 lymph nodes. They are bound together with muscles, nerves, blood vessels, and lymph vessels. Throat cancer often spreads to these areas and nearby lymph nodes, or lymph node groups called chains.

The removal of lymph nodes or groups of lymph nodes in the neck is called lymph node dissection or neck dissection and is often part of tumor resection surgery. Lymph nodes may be removed on the side of the neck where the main (primary) tumor is found. When the tumor is near the center of the neck (midline), then lymph nodes from both sides may be removed. The type of lymph node dissection is based on tumor location and information gathered before surgery.

There are different types of lymph node dissections:

- **Selective neck dissection** removes some of the regional lymph nodes where the cancer is likely to travel.

- **Comprehensive neck dissection** removes all lymph nodes in a group or level.
- **Radical neck dissection** removes all lymph nodes, and may require removing veins, arteries, nerves, or muscle next to the nodes.

Systemic therapy

Systemic therapy is drug therapy that works throughout the body. Types include chemotherapy, targeted therapy, and immunotherapy.

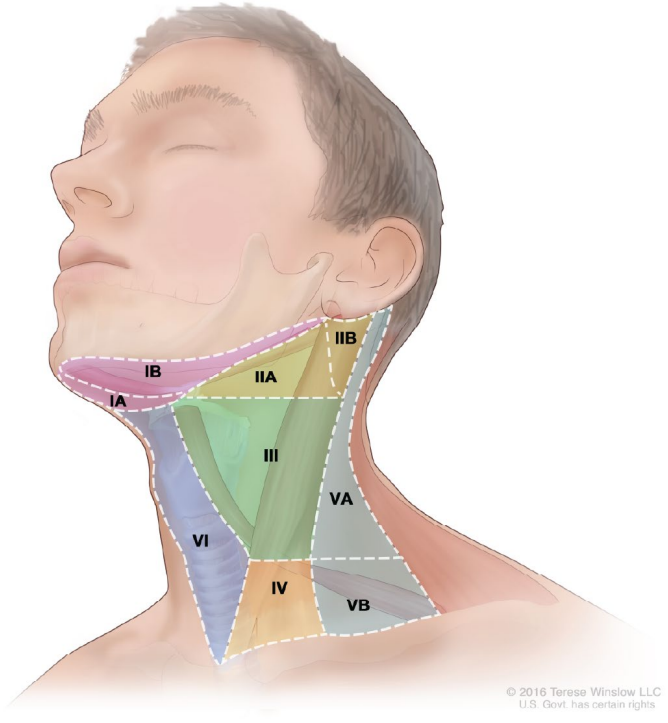
All systemic treatments listed in this guide are recommended and appropriate. When helpful, NCCN experts also assign a level of preference to their recommendations for systemic therapies:

- **Preferred therapies** have the most evidence they may work better and may be safer than other therapies.
- **Other recommended therapies** can provide effective results but may have less evidence, more side effects, or may not work quite as well as preferred therapies.
- **Therapies used in certain cases** work best for individuals with specific cancer features or health circumstances.

Neck lymph node groups or levels

Cervical lymph nodes are found only in the neck. The 6 (VI) levels for neck lymph node groups are shown here. Lymph nodes from levels 2, 3, and 5 are at the greatest risk for throat cancer metastasis.

Lymph Node Groups of the Neck



For examples of systemic therapies, see **Guide 2**.

Chemotherapy

Chemotherapy kills fast-dividing cells throughout the body, including cancer cells and some normal cells. Sometimes, chemotherapies are combined or used with other systemic therapies. This is called multiagent chemotherapy. Chemotherapy might be followed by radiation therapy.

Chemoradiation

In chemoradiation, chemotherapy and radiation therapy are given at the same time. This is called concurrent chemoradiation. For locally advanced throat cancer, cisplatin is often the preferred chemotherapy drug given with radiation therapy.

Other systemic therapies that aren't chemotherapy might be given at the same time as radiation therapy (concurrent treatment) or one after the other (sequential treatment). But these aren't called chemoradiation.

Targeted therapy

Targeted therapy focuses on specific or unique features of cancer cells. Targeted therapies seek out how cancer cells grow, divide, and move in the body. These drugs stop or inhibit the action of molecules that help cancer cells grow and/or survive. If your tumor has certain mutations, targeted therapy might be used.

Guide 2
Systemic therapies

Chemotherapy examples	• Capecitabine (Xeloda) • Carboplatin (Kyxata) • Cisplatin • Docetaxel (Taxotere, Docivyx, Beizray) • Gemcitabine (Gemzar)	• Hydroxyurea (Hydrea) • Infusional Fluorouracil • Methotrexate • Paclitaxel • Pemetrexed (Alimta)
Targeted therapy examples	• Afatinib (Gilotrif) • Cetuximab (Erbitux) • Enfortumab vedotin-ejfv (Padcev) • Erdafitinib (Balversa)	
Immunotherapy examples	• Ipilimumab (Yervoy) • Nivolumab (Opdivo) • Pembrolizumab (Keytruda)	

Immunotherapy

The immune system has many on and off switches. Tumors take advantage of off switches. Immunotherapy can block these off switches, which helps turn the immune system back on.

If your tumor has a high number of mutations or a combined positive score (CPS) score of at least 1 percent (1%) or higher, immunotherapy might be given. Immunotherapy can be given alone or with chemotherapy or targeted therapy.

For more information, see *NCCN Guidelines for Patients: Immunotherapy Side Effects*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

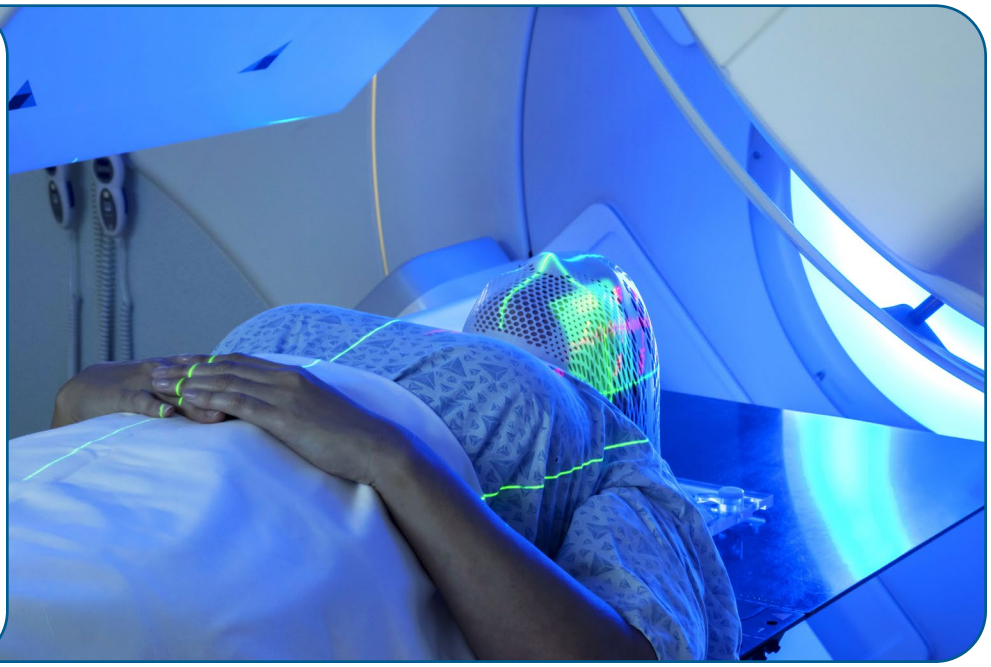


Radiation therapy

Radiation therapy uses high-energy x-rays, photons, electrons, and other sources to kill cancer cells and shrink tumors. It's typically delivered from outside the body by a computerized machine, which can shape the treatment to closely fit the location and size of the tumor. Treatment is given in small daily doses, typically over 6 to 7 weeks on weekdays (Monday through Friday), with weekends off. A body-fitting device resembling a hockey goalie mask may be used to keep your head and shoulders still during treatment. If you're uncomfortable in tight spaces, please talk to your radiation oncologist for ways to help keep you comfortable and calm during radiation therapy.

At least once a week, you'll see your radiation oncologist to review your progress and check for side effects, such as sunburn-like rash,

"I'm not claustrophobic, but the immobilization mask is tight. Getting radiation therapy only takes about 6 to 8 minutes on the table each day. Keeping my eyes closed and listening to some good music allowed me to withstand being immobilized."



mouth soreness, lack of taste, dry mouth, thick saliva, and throat pain.

Before starting radiation therapy, you should

- Try to see a specialized dentist or dental oncologist for a clearance exam. Radiation therapy has many long-term and life-changing side effects that are best addressed ahead of time.

Panoramic dental x-ray is part of a pre-radiation therapy dental evaluation. It's needed to check the health of your jaw and teeth and to see if you need any dental work before starting radiation therapy.

It's important to tell your dentist about your head and neck cancer. You'll need to see your dentist every 3 to 4 months for routine care to counteract the side effects of radiation therapy to the head and neck.

Intensity-modulated radiation therapy (IMRT) uses small beams of different strengths to match the shape of the tumor. This limits the amount of radiation to normal tissue. IMRT is recommended for throat cancer to minimize radiation dose to critical structures.



Finding a clinical trial

In the United States

NCCN Cancer Centers
NCCN.org/cancercenters

The National Cancer Institute (NCI)
cancer.gov/about-cancer/treatment/clinical-trials/search

Worldwide

The U.S. National Library of Medicine (NLM)
clinicaltrials.gov

Need help finding a clinical trial?

NCI's Cancer Information Service (CIS)
1.800.4.CANCER (1.800.422.6237)
cancer.gov/contact

Clinical trials

You may also be able to receive treatment through a clinical trial. A clinical trial is a type of medical research study. After being developed and tested in a lab, potential new ways of treating cancer need to be studied in people. If found to be safe and effective in a clinical trial, a drug, device, or treatment approach may be approved by the U.S. Food and Drug Administration (FDA).

Everyone with cancer should carefully consider all of the treatment options available for their cancer type, including standard treatments and clinical trials. Talk to your doctor about whether a clinical trial may make sense for you.

Phases

Most cancer clinical trials focus on treatment and are done in phases.

- **Phase 1** trials study the safety and side effects of an investigational drug or treatment approach.
- **Phase 2** trials study how well the drug or approach works against a specific type of cancer.
- **Phase 3** trials test the drug or approach against a standard treatment. If the results are good, it may be approved by the FDA.
- **Phase 4** trials study the safety and benefit of an FDA-approved treatment.

Who can enroll?

It depends on the clinical trial's rules, called eligibility criteria. The rules may be about age, cancer type and stage, treatment history, or general health. They ensure that participants are alike in specific ways and that the trial is as safe as possible for the participants.

Informed consent

Clinical trials are managed by a research team. This group of experts will review the study with you in detail, including its purpose and the risks and benefits of joining. All of this information is also provided in an informed consent form. Read the form carefully and ask questions before signing it. Take time to discuss it with people you trust. Keep in mind that you can leave and seek treatment outside of the clinical trial at any time.

Will I get a placebo?

Placebos (inactive versions of real medicines) are almost never used alone in cancer clinical trials. It's common to receive either a placebo with a standard treatment, or a new drug with a standard treatment. You will be informed, verbally and in writing, if a placebo is part of a clinical trial before you enroll.

Are clinical trials free?

There's no fee to enroll in a clinical trial. The study sponsor pays for research-related costs, including the study drug. But you may need to pay for other services, like transportation or childcare, due to extra appointments. During the trial, you will continue to receive standard cancer care. This care is often covered by insurance.

Key points

- Systemic therapy works throughout the body. It includes chemotherapy, targeted therapy, and immunotherapy.
- Targeted therapies can block the ways cancer cells grow, divide, and move in the body.
- Immunotherapy uses your body's natural defenses to find and destroy cancer cells.
- Radiation therapy uses high-energy x-rays, protons, photons, and other sources to kill cancer cells and shrink tumors.
- Systemic therapy might be combined with radiation therapy.
- A clinical trial is a type of research that studies a treatment to see how safe it is and how well it works.

Questions to ask

- What is your experience treating head and neck cancer?
- What treatment do you recommend and why?
- How long will treatment last?
- What can I expect from treatment?
- Is a clinical trial an option for me?

What's next?

Now that you've read about the different types of treatment and what to expect, the next chapter talks about some of the common side effects of treatment and what might be done to manage those effects.

5
Supportive care

40 What is supportive care?

41 Side effects

44 Late effects

44 Survivorship

45 Key points

45 Questions to ask

Supportive care helps manage the symptoms of throat cancer and the side effects of treatment. This chapter discusses possible side effects.

What is supportive care?

Supportive care is an important part of cancer care. The goal is to improve your quality of life during and after cancer treatment. Supportive care is for everyone with cancer and their families, not just for those at the end of life. It's also known as palliative care.

Supportive care includes a wide range of services. Supportive care prevents or manages the symptoms of cancer and the side effects of cancer treatment, like pain and cancer-related fatigue. It also addresses the mental, social, emotional, and spiritual concerns faced by people with cancer.

Supportive care provides help with additional needs, such as:

- Making treatment decisions
- Coordinating your care
- Paying for care
- Planning for advanced care and end of life

Read more about the types of support you may receive in *NCCN Guidelines for Patients: Palliative Care*, available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.

Head and neck tumors often impact a person's ability to function, such as chew, swallow, speak, and breathe. It can also impact taste, smell, hearing, and how your voice sounds or how you look. You'll want to be well-prepared and understand how treatment might cause changes to these functions and your appearance.



Side effects

Cancer treatment can cause unwanted health issues called side effects. Some side effects may be unpleasant. Others may be harmful to one's health. Side effects depend on many factors. These factors include the drug type and dose, length of treatment, and the person.

Some possible side effects of throat cancer treatment are described next. They are listed in alphabetical order and not in order of importance.

It's important to tell your care team about all side effects, including new or worsening symptoms, so they can be managed.

Cranial neuropathies

Cranial neuropathies are a common symptom of head and neck cancer. Cranial neuropathy affects the nerves in the head and neck and might cause:

- Pain
- Dizziness (vertigo)
- Muscle weakness, numbness, or tingling in the face, neck, or shoulders
- Changes in vision, hearing, taste, and smell

Cranial neuropathies can affect speech, swallowing, and hearing, making it difficult to communicate. This might cause distress and impact your ability to function and complete certain tasks at home and at work.

Your treatment may not completely reverse these symptoms. Treatment may also worsen or cause new cranial neuropathies if your cancer is located close to sensitive nerve or brain structures.

Ask your doctor about these risks, and what can be done to minimize them. You can also ask to see an occupational therapist or speech-language pathologist who might be able to help you recover from these symptoms.

Diarrhea or constipation

Diarrhea is frequent and watery bowel movements. Your care team will tell you how to manage diarrhea. It's important to drink lots of fluids.

Constipation is also common, especially if taking certain pain medicines, including narcotic pain medication and some anti-nausea medications. Constipation means having less frequent and more difficult bowel movements. Drinking fluids, staying active, and taking medicines for constipation are often recommended.

Difficulty eating, swallowing, or speaking

Because of the location of throat cancer, difficulty eating, swallowing, or speaking are common side effects of treatment. Difficulty swallowing (dysphagia) or painful swallowing (odynophagia) can be caused by cancer or its treatment and might be long term (chronic).

Speech-language pathologists can help people who have trouble swallowing or speaking.

Difficulty with smell, nose bleeds, and congestion

Your sense of smell might be affected by cancer or its treatment. The lining of your nasal cavity and sinuses might become inflamed or irritated causing your nose to feel stuffed-up or congested. Your nose might bleed. You might have headaches. Your care team might recommend using a humidifier or other ways to help with sinus or nasal irritation.

Distress

Depression, anxiety, and sleeping issues are common during a cancer diagnosis. Talk to your care team and those with whom you feel most comfortable about how you're feeling. There are services, people, and medicine that can help relieve your distress.

Dry mouth

Xerostomia is the medical term for dry mouth. Treatment for throat cancer can affect your salivary glands. This means you may not make as much spit (saliva) as before and so your mouth may become dry. It's a very common side effect after radiation and might be long term. Drinking plenty of water and avoiding beverages with caffeine, alcohol, or sugar can help. Special mouth rinses and sugar-free lozenges are available.

Fatigue

Fatigue is extreme tiredness and inability to function due to lack of energy. Fatigue may be caused by cancer or it may be a side effect of treatment. Let your care team know how you're feeling and if fatigue is getting in the way of doing the things you enjoy. Eating a balanced diet, exercise, yoga, acupuncture, and massage therapy can help. You might be referred to a nutritionist or dietitian to help with fatigue.

Loss of appetite

The side effects from throat cancer or its treatment, and the stress of having cancer might cause you to feel not hungry or sick to your stomach (nauseated). You might have a sore mouth or difficulty swallowing.

Healthy eating is important during treatment. It includes eating a balanced diet, eating the right amount of food, and drinking enough fluids. A registered dietitian who's an expert in nutrition and food can help. Weight loss is common in those with head and neck cancer. You might be asked to see a nutrition expert before starting treatment to help prevent severe weight loss.

Low blood cell counts

Some cancer treatments can cause low blood cell counts.

- **Anemia** is a condition where your body doesn't have enough healthy blood cells, resulting in less oxygen being carried to your cells. You might tire easily if you're anemic.

- **Neutropenia** is a decrease in neutrophils, a type of white blood cell. This puts you at risk for infection.
- **Thrombocytopenia** is a condition where there aren't enough platelets found in the blood. This puts you at risk for bleeding.

Lymphedema

Lymphedema is a condition in which lymph fluid builds up in tissues and causes swelling. It may be caused when part of the lymph system is damaged or blocked, such as during surgery to remove lymph nodes, or by radiation therapy. Cancers that block lymph vessels can also cause lymphedema.

Swelling usually develops slowly over time. It may develop during treatment, or it may start years after treatment. If you have lymphedema, you may be referred to an expert in lymphedema management. The swelling may be reduced by exercise, massage, compression devices, and other means.

Nausea and vomiting

Nausea and vomiting are common side effects of treatment. You'll be given medicine to prevent nausea and vomiting.

Pain

Tell your care team about any pain or discomfort. You might meet with a palliative care specialist or with a pain specialist to manage pain. Some people may benefit from palliative radiation therapy to help relieve pain caused by the tumor. During this treatment, a radiation beam is focused on the tumor.

"

The effects of radiation therapy are cumulative, so while you may look and feel okay by the end of your cycle, the side effects will continue for weeks afterward. My skin was red and burned at the end of radiation, but it got much worse in the weeks after I was done. Same with the mouth ulcers."

Radiation burn

Radiation dermatitis or radiation burn is a common side effect of radiation therapy. It can cause the skin to change color or cause dry and itchy skin, pain, peeling, blistering, or swelling. Your health care provider can help you find the best treatment for radiation burn.

Stiff neck

Cancer or its treatment can cause stiff neck and shoulders and long-term (chronic) neck pain. The stress of having cancer can also cause tightness in the neck, shoulders, jaw, and head. Movement such as tai chi, walking, or stretching, and massage might help a stiff neck and shoulders to feel better. Speak to your care team about how to manage chronic neck pain.

Late effects

Late effects are side effects that occur months or years after a disease is diagnosed or after treatment has ended. Late effects may be caused by cancer or cancer treatment. They may include physical, mental, and social health issues, and second cancers. The sooner late effects are treated the better. Ask your care team about what late effects could occur. This will help you know what to look for.

Survivorship

A person is a cancer survivor from the time of diagnosis until the end of life. After treatment, your health will be monitored for side effects and the return of cancer. This is part of your survivorship care plan. It's important to keep any follow-up care and imaging test appointments. Seek routine medical care, including regular doctor visits for preventive care and cancer screening.

A personalized survivorship care plan will contain a summary of possible long-term effects of treatment called late effects and a list of follow-up tests. Find out how your primary care provider will coordinate with specialists for your follow-up care.

Supportive care resources

More information on supportive care is available at NCCN.org/patientguidelines and on the NCCN Patient Guides for Cancer app.



Key points

- Supportive care is health care that relieves symptoms caused by cancer or its treatment and improves quality of life. Supportive care is always given.
- All cancer treatments can cause unwanted health issues called side effects. Side effects depend on many factors. These factors include the drug type and dose, length of treatment, and the person.
- Some side effects are very rare. Ask your care team what to expect.
- Tell your care team about any new or worsening symptoms.

Questions to ask

- What are the side effects of this treatment?
- How are these side effects treated?
- What should I do if I notice changes in my condition?
- What should I do if I notice side effects on weekends and other non-office hours?
- Will my care team be able to communicate with the emergency department or urgent care team?

What's next?

The next chapter discusses treatment options for early-stage and locally advanced throat cancer that tested negative for p16.

6
p16- (HPV-) throat cancer

47 Early-stage p16- throat cancer

48 Locally advanced p16- throat cancer

49 Follow-up care

50 Key points

50 Questions to ask

A p16-negative (p16-) throat cancer isn't caused by HPV16. Treatment is based on tumor location and if any lymph nodes have cancer.

For throat cancer, tumor samples are tested for the p16 protein to see if HPV infection is present. This is a key part of staging that is considered when making treatment decisions. A p16-negative (p16-) throat cancer has tested negative for HPV16. This information and other factors such as your overall health are considered when making treatment decisions. Your preferences about treatment are always important. Talk to your care team and make your wishes known.

Early-stage p16- throat cancer

In early-stage throat cancer the tumor is 4 cm or less and cancer may be in 1 lymph node.

Treatment options include:

- Surgery to remove the tumor and any lymph nodes that might have cancer (called tumor resection and neck dissection). Radiation therapy or systemic therapy with radiation therapy might follow surgery.
- Radiation therapy
- Systemic therapy given at the same time as radiation therapy (concurrent treatment).
- Clinical trial

The preferred time between surgery and radiation therapy is 6 weeks or less.

If your cancer expresses the PD-L1 protein and has a combined positive score (CPS) of at least 1 percent (1%) or higher, you might have pembrolizumab (Keytruda) before and after surgery, or treatment that combines pembrolizumab, and cisplatin with radiation therapy (chemoradiation).

For systemic therapies given with radiation therapy, see **Guide 3**.

“I had to attempt to re-learn simple things like talking, eating, and breathing. I wanted to rush it. I wanted to be able to eat and talk and do the things I normally would do. My advice is be patient and try to accept things might not be the same as they were before treatment.”

Locally advanced p16- throat cancer

In locally advanced p16- (HPV-) throat cancer, the tumor is larger than 4 cm and cancer is in 1 or more lymph nodes. The tumor might have grown into nearby areas such as the epiglottis flap that closes the airway to the windpipe (trachea), the larynx (voice box), the jaw, or other structures.

Treatment options include:

- Concurrent systemic therapy with radiation therapy
- Surgery to remove the tumor and lymph nodes. Radiation therapy or systemic therapy with radiation therapy might follow surgery.
- Clinical trial

If your cancer expresses the PD-L1 protein and has a CPS of at least 1 percent or higher, you might have pembrolizumab before and after surgery, or treatment that combines pembrolizumab, and cisplatin with radiation therapy (chemoradiation).

For systemic therapies given with radiation therapy, see **Guide 3**.

Guide 3
Systemic therapy options

	Given with radiation therapy after surgery	Given at same time as radiation therapy (concurrent)
Preferred therapies	• Cisplatin	• High-Dose Cisplatin • Carboplatin, Infusional Fluorouracil
Other recommended therapies	• None recommended	• Cisplatin • Carboplatin, Paclitaxel
Therapies used in certain cases	• Docetaxel (if can't have Cisplatin) • Docetaxel plus Cetuximab	• Docetaxel • Cetuximab • Cisplatin, Infusional Fluorouracil • Cisplatin, Paclitaxel • Fluorouracil, Hydroxyurea

Follow-up care

After treatment, you will be monitored for side effects and the return of cancer called recurrence. General follow-up care includes doctor visits, blood and imaging tests, and supportive care as needed. It's important to contact your doctor right away if you notice any changes in your head or neck. For general follow-up care, see **Guide 4**.

It's strongly recommended, when possible, to seek treatment at a high-volume cancer center or hospital that has experience in your type of head and neck cancer.

Guide 4
Follow-up care

Medical history and physical exam, including complete head and neck exam:

- Year 1, every 1 to 3 months
- Year 2, every 2 to 6 months
- Years 3 through 5, every 4 to 8 months
- Over 5 years, every 12 months

Blood tests to look for hormone levels made by glands in the head and neck. Other blood tests will be done as needed.

Imaging tests

Dental exam for areas exposed to radiation treatment

Supportive care, as needed:

- Speech, hearing, and swallowing evaluation and rehabilitation
- Nutrition evaluation and rehabilitation
- Ongoing screening for depression
- Help to quit smoking; tobacco use and alcohol use counseling
- Lymphedema evaluation and rehabilitation

Information on survivorship care and creation of a survivorship care plan within 1 year of completing treatment. During survivorship, you will continue to see a head and neck oncologist and your primary care doctor.

Key points

- A p16-negative (p16-) throat cancer isn't caused by HPV16. It's HPV-negative (HPV-).
- In early-stage p16- (HPV-) throat cancer, the tumor is 4 cm or less and cancer may be in 1 lymph node.
- Treatment options for early-stage p16- (HPV-) throat cancer include surgery to remove tumor and lymph nodes, radiation therapy, systemic therapy with radiation therapy, or clinical trial.
- In locally advanced p16- (HPV-) throat cancer, the tumor is larger than 4 cm and cancer may be in 1 or more lymph nodes. The tumor might have grown into the larynx (voice box) or other nearby structures.
- Treatment options for locally advanced p16- (HPV-) throat cancer include systemic therapy with radiation therapy, surgery to remove tumor and lymph nodes, or clinical trial.
- After completing treatment, you will have follow-up care to monitor for sides effects and changes in your health. Contact your doctor right away if you notice any changes in your head or neck.

Questions to ask

- What does it mean that the tumor is p16-negative (p16-)?
- What stage is my cancer and how does this affect my treatment options?
- What treatment(s) do you recommend and why?
- Is a clinical trial an option for me?
- Does the order of treatments matter?

What's next?

The next chapter discusses treatment options for early-stage and locally advanced throat cancer that tested positive for p16.

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p16+ (HPV+) throat cancer

52 Early-stage p16+ (HPV+) cancer

53 Locally advanced p16+ cancer

54 Follow-up care

55 Key points

55 Questions to ask

p16-positive (p16+) throat cancer is caused by HPV16. Throat cancer linked to HPV tends to respond better to treatment than cancers that aren't HPV-related.

For throat cancer, tumor samples are tested for the p16 protein to see if HPV infection is present. This is a key part of staging and is considered when making treatment decisions. This information and other factors such as your overall health are considered when making treatment decisions. Your preferences about treatment are always important. Talk to your care team and make your wishes known.

Early-stage p16+ (HPV+) cancer

In early-stage cancer, the tumor is 4 cm or less and isn't in the lymph nodes. However, if cancer is found in 1 lymph node and it's 3 cm or less, it might be treated with systemic therapy and radiation therapy given at the same time (concurrent).

Treatment options include:

- Surgery to remove the tumor and lymph nodes. Radiation therapy or systemic therapy with radiation therapy might follow surgery.
- Radiation therapy (with or without concurrent systemic therapy depending on the extent of the cancer)
- Clinical trial

Guide 5
Systemic therapy options

	Given with radiation therapy after surgery	Given at same time as radiation therapy (concurrent)
Preferred therapies	• Cisplatin	• High-Dose Cisplatin • Carboplatin, Infusional Fluorouracil
Other recommended therapies	• None recommended	• Cisplatin • Carboplatin, Paclitaxel
Therapies used in certain cases	• Docetaxel (if can't have Cisplatin) • Docetaxel plus Cetuximab	• Docetaxel • Cetuximab • Cisplatin, Infusional Fluorouracil • Cisplatin, Paclitaxel • Fluorouracil, Hydroxyurea

For systemic therapies given with radiation therapy, see **Guide 5**.

Locally advanced p16+ cancer

In locally advanced throat cancer, the tumor is 4 cm or larger. The tumor might have grown into nearby areas such as the epiglottis flap that closes the airway to the windpipe (trachea). Cancer might be in more than 1 lymph node on any side of the neck or larger than 3 cm.

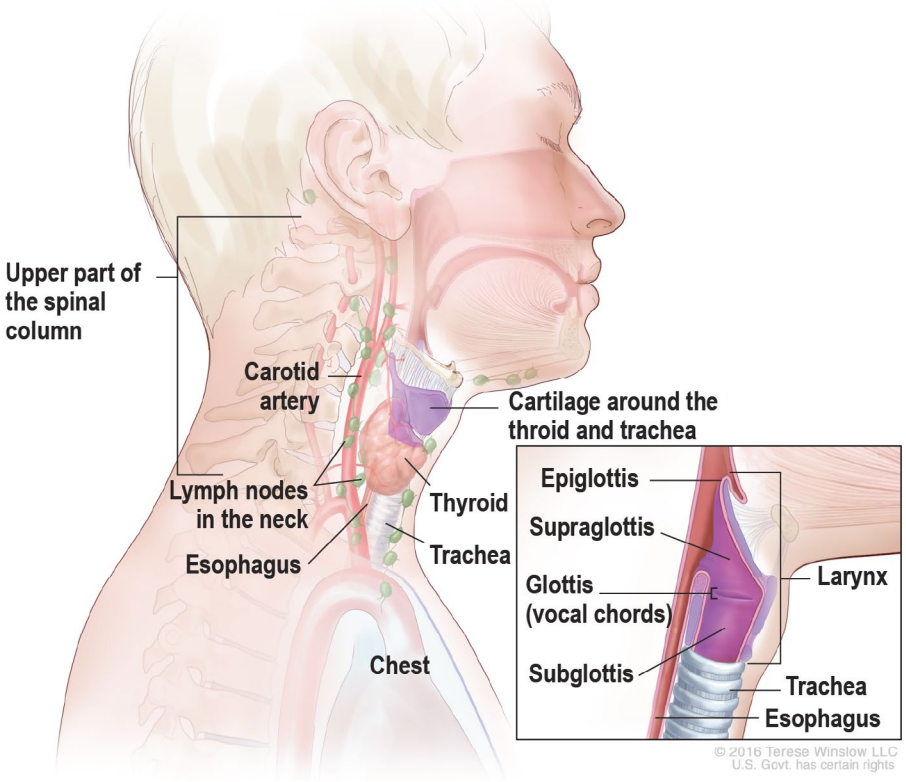
Treatment options include:

- Concurrent systemic therapy with radiation therapy (preferred in some cases)
- Surgery to remove the tumor and lymph nodes (called tumor resection and neck dissection). Radiation therapy or systemic therapy with radiation therapy might follow surgery.
- Clinical trial

For systemic therapies given with radiation therapy, see **Guide 5**.

How throat cancer can spread

Cancer can spread to lymph nodes and other parts of the neck such as the base of the skull, epiglottis, larynx, pharynx, bones and muscles behind the nasal cavity, jaw, and roof of the mouth.



Follow-up care

After treatment, you will be monitored for side effects and the return of cancer called recurrence. General follow-up care includes doctor visits, blood and imaging tests, and supportive care as needed. It's important to contact your doctor right away if you notice any changes in your head or neck. For general follow-up care, see **Guide 6**.

Contact your doctor right away if you notice any changes in your head or neck.

Guide 6
Follow-up care

Medical history and physical exam, including complete head and neck exam: • Year 1, every 1 to 3 months • Year 2, every 2 to 6 months • Years 3 through 5, every 4 to 8 months • Over 5 years, every 12 months
Blood tests to look for hormone levels made by glands in the head and neck. Other blood tests will be done as needed.
Imaging tests
Dental exam for areas exposed to radiation treatment
Supportive care, as needed: • Speech, hearing, and swallowing evaluation and rehabilitation • Nutrition evaluation and rehabilitation • Ongoing screening for depression • Help to quit smoking; tobacco use and alcohol use counseling • Lymphedema evaluation and rehabilitation
Information on survivorship care and creation of a survivorship care plan within 1 year of completing treatment. During survivorship, you will continue to see a head and neck oncologist and your primary care doctor.

Key points

- A p16-positive (p16+) throat cancer is caused by HPV16 and is usually HPV-positive (HPV+).
- In early-stage throat cancer, the tumor is 4 cm or less and isn't in any lymph nodes.
- Treatment options for early-stage p16+ (HPV+) throat cancer include surgery to remove tumor and lymph nodes, radiation therapy, or clinical trial.
- In locally advanced throat cancer, the tumor is 4 cm or larger and cancer may be in 1 or more lymph nodes. The tumor might have grown into the larynx (voice box) or other nearby structures.
- Treatment options for locally advanced p16+ (HPV+) throat cancer include systemic therapy with radiation therapy, surgery to remove tumor and lymph nodes, or clinical trial.
- After completing treatment, you will have follow-up care to monitor for sides effects and changes in your health. Contact your doctor right away if you notice any changes in your head or neck.

Questions to ask

- What does it mean that the tumor is p16-positive (p16+) and how does this affect my treatment options?
- What will be removed during surgery?
- Will I have a scar and where will it be located?
- How will treatment affect my ability to taste, smell, chew, breathe, talk, or swallow?
- Can I go to a hospital for surgery and a different center for radiation therapy?

What's next?

The next chapter discusses treatment options for very advanced throat cancer.

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Very advanced throat cancer

57 Unresectable tumors

59 Recurrent or persistent throat cancer

60 Metastatic throat cancer

62 Key points

62 Questions to ask

Very advanced throat cancer is cancer that remains after treatment (persistent cancer) or cancer that has returned after a disease-free period (recurrence). It also includes cancer that can't be removed with surgery (unresectable) or cancer that has spread to near (locoregional) or distant (metastatic) sites through the bloodstream.

This chapter covers treatment for throat cancer that:

- Can't be removed with surgery (unresectable)
- Remains after treatment or has spread or grown during treatment (persistent cancer)
- Has returned after a disease-free period (recurrence)
- Has spread to sites outside of the head and neck (metastatic)

Treatment planning starts with testing. Tumor mutation or biomarker testing might be done before starting treatment for some types of advanced throat cancer. Factors such as your overall health are considered when making treatment decisions. Ask how treatment will impact the quality of your life and if the goal is to cure or prevent the further spread of cancer.

Unresectable tumors

An unresectable tumor can't be removed with surgery. Sometimes, it's unsafe to remove the tumor with surgery because it's too close to vital organs. You may not want surgery. You may have other health conditions that prevent surgery.

Treatment options are based on your performance status or your general level of fitness and ability to perform daily self-care tasks. This information is taken into consideration by your care team when making a treatment recommendation. They might not mention performance status when speaking with you. The purpose of this guide is to share with you the standard of care and how doctors make treatment decisions. Your preferences about treatment are always important.

Treatments like systemic therapy and systemic therapy with radiation therapy can cause an unresectable tumor to become resectable. This means that in some cases surgery might be possible after initial treatment.

PS 0 and PS 1

A performance status (PS) score of 0 means you're fully active. A score of 1 means you can do all self-care activities but are unable to do hard physical work.

For PS 0 and PS 1, the options are:

- Systemic therapy at the same time as radiation therapy (concurrent treatment). Cisplatin is preferred.
- Induction systemic therapy followed by radiation therapy (sequential treatment). Induction systemic therapy is for people who are healthy enough to withstand intense treatment.
- Systemic therapy followed by radiation therapy (sequential treatment). Sequential treatment is given one after another and not at the same time.

PS 2

A score of 2 means you can do most self-care tasks and spend most of waking time out of bed but are unable to do any work.

For PS 2, the options are:

- Concurrent systemic therapy with radiation therapy (preferred)
- Radiation therapy

PS 3 and PS 4

A score of 3 means you need help with some self-care tasks and spend most of waking time in bed. A score of 4 means you're confined to a wheelchair or bed and are unable to care for yourself.

For PS 3 and PS 4, the options are:

- Palliative radiation therapy
- Single-agent systemic therapy (for PS 3 only)
- Best supportive care

Supportive care is health care given to prevent, reduce, and relieve suffering, and to improve quality of life. Best supportive care, supportive care, and palliative care often mean the same thing.

Systemic therapy options

See Guide 7 for

- Systemic therapy after surgery
- Induction systemic therapy
- Systemic therapy given at the same time as radiation therapy (called concurrent treatment or chemoradiation if a chemotherapy is used)
- Systemic therapy given before radiation therapy (called sequential treatment)

See Guide 8 when

- Surgery and radiation therapy aren't options

Recurrent or persistent throat cancer

Recurrent disease is cancer that has returned after a disease-free period. Persistent disease is cancer that remains after treatment. It might include cancer that has grown or spread during treatment or is resistant to the treatment.

Recurrent or persistent disease treatment options are based on:

- If you had radiation therapy before
- If the tumor can or can't be removed with surgery

If surgery is an option

A resectable tumor can be removed with surgery. Surgery might be followed by radiation therapy, systemic therapy with radiation therapy, or a clinical trial. A clinical trial is preferred in some cases. Surgery isn't the only option for a resectable tumor, particularly if surgery might affect swallowing or speaking. In these cases, other options include targeted therapy, immunotherapy, chemoradiation, or systemic therapy followed by radiation therapy.

For systemic therapies when surgery is an option, see **Guide 7**.

Guide 7
Systemic therapy options if surgery might be an option

	Given at same time as radiation therapy (concurrent)	Induction systemic therapy or radiation therapy given after systemic therapy (sequential)
Preferred therapies	• High-Dose Cisplatin • Carboplatin, Infusional Fluorouracil	• Cisplatin, Docetaxel, Infusional Fluorouracil
Other recommended therapies	• Cisplatin • Carboplatin, Paclitaxel	• Cisplatin, Fluorouracil, Paclitaxel • Carboplatin, Paclitaxel plus Cetuximab
Therapies used in certain cases	• Docetaxel • Cetuximab • Cisplatin, Infusional Fluorouracil • Cisplatin, Paclitaxel • Infusional Fluorouracil, Hydroxyurea	• Carboplatin, Paclitaxel • Carboplatin, Paclitaxel plus Cetuximab

If surgery isn't an option

An unresectable tumor can't be removed with surgery. Sometimes, an unresectable tumor can become resectable after treatment options outlined below.

Treatment options include:

- If you didn't have radiation therapy before, then see options listed under *Unresectable tumors* on pages 57–58.
- If you had radiation therapy before, then you might have more radiation therapy. Systemic therapy might be added. A clinical trial is preferred.

For systemic therapy options when surgery isn't an option, see **Guide 8**.

Metastatic throat cancer

Metastatic throat cancer has spread through the bloodstream to distant areas of the body. A clinical trial is preferred for metastatic cancer. Depending on your overall health, your ability to perform activities of daily living, your preferences about treatment, and the location and number of metastases, treatment options may also include systemic therapy, surgery, radiation therapy, or systemic therapy with radiation therapy. Palliative surgery and palliative radiation therapy along with other types of supportive care might be given to relieve pain, discomfort, swallowing difficulties, and side effects caused by cancer.

For systemic therapies when surgery is an option, see **Guide 7**.

For systemic therapy options when surgery isn't an option, see **Guide 8**.

Guide 8
Systemic therapy options: Recurrent, unresectable, or metastatic disease

Preferred therapies	First-line: • Carboplatin, Infusional Fluorouracil plus Pembrolizumab • Cisplatin, Infusional Fluorouracil plus Pembrolizumab • Pembrolizumab	Next-line (if not used before): • Nivolumab (if disease progresses on or after platinum-based chemotherapy) • Pembrolizumab (if disease progresses on or after platinum-based chemotherapy)
Other recommended therapies	Combined drugs: • Carboplatin, Infusional Fluorouracil plus Cetuximab • Cisplatin, Infusional Fluorouracil plus Cetuximab • Cisplatin plus Cetuximab • Platinum-based chemotherapy, Docetaxel or Paclitaxel • Cisplatin, Infusional Fluorouracil • Platinum-based chemotherapy, Docetaxel plus Cetuximab • Platinum-based chemotherapy, Paclitaxel plus Cetuximab • Cisplatin, Docetaxel plus Pembrolizumab • Cisplatin, Paclitaxel plus Pembrolizumab	Single drugs: • Capecitabine • Carboplatin • Cetuximab • Cisplatin • Docetaxel • Infusional Fluorouracil • Methotrexate • Paclitaxel • Afatinib (next-line only, if disease progresses on or after platinum-based chemotherapy)
Therapies used in certain cases	• Cetuximab plus Nivolumab • Cetuximab plus Pembrolizumab • Paclitaxel plus Cetuximab • Pembrolizumab • Cisplatin, Pemetrexed • Docetaxel plus Cetuximab	• Gemcitabine, Paclitaxel • Ipilimumab plus Nivolumab • Enfortumab vedotin-ejfv • Erdafitinib • Fam-trastuzumab deruxtecan-nxki

Note: A platinum-based chemotherapy is cisplatin or carboplatin.

Key points

- Very advanced throat cancer is cancer that remains after treatment (persistent cancer) or cancer that has returned after a cancer-free period (recurrence). It also includes cancer that can't be removed with surgery (unresectable) or cancer that has spread to nearby (locoregional) or distant (metastatic) sites through the bloodstream.
- Treatment for very advanced throat cancer is based on the size and location of the tumor(s), if there's cancer in the lymph nodes, and what treatment you had before. Your overall health and preferences about treatment are also important.
- A resectable tumor can be removed with surgery. An unresectable tumor can't be removed with surgery. Sometimes an unresectable tumor can become resectable after treatment with systemic therapy, radiation therapy, or both.
- Metastatic throat cancer has spread through the bloodstream to distant areas of the body. A clinical trial is preferred for metastatic throat cancer.

Questions to ask

- What treatments do you recommend and why?
- Does the order of treatments matter?
- How can I prepare for treatment?
- How will treatment affect my ability to taste, smell, chew, breathe, talk, or swallow?
- What will you do to manage side effects?

What's next?

The next chapter provides resources and where you can get more information.

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Other resources

64 What else to know

64 What else to do

64 Where to get help

65 Questions to ask

Want to learn more? Here's how you can get additional help.

What else to know

This guide helps you know your options so you can make informed decisions and improve your cancer care. But it’s not the only resource that you have.

Ask for as much information and help as you need. Many people are interested in learning more about:

- Finding an oncologist who’s an expert in head and neck cancer
- Making treatment decisions
- The details of treatment and possible side effects
- Getting financial help
- Coping with cancer treatment and other health challenges

What else to do

Your health care center can help you with next steps. It often has on-site resources to help meet your needs and find answers to your questions. Health care centers can also inform you of resources in your community.

In addition to help from your providers, the resources listed in the next section provide support for many people like yourself.

Where to get help

Look through the list below and visit the provided websites to learn more about these organizations.

Bag It
bagitcancer.org

Bone Marrow & Cancer Foundation
bonemarrow.org

CanCare
Cancare.org

Cancer*Care*
cancercare.org

Cancer Hope Network
Cancerhopenetwork.org

GRACE
Cancergrace.org

Head and Neck Cancer Alliance
Headandneck.org

HPV Cancers Alliance
hpvca.org

Imerman Angels
Imermanangels.org

Oral Cancer Foundation
Oralcancerfoundation.org

Support for People with Oral and Head and Neck Cancers
Spohnc.org

THANC Foundation
Thancfoundation.org

Triage Cancer
triagecancer.org



We want your feedback!

Our goal is to provide helpful and easy-to-understand information on cancer. Take our survey to let us know what we got right and what we could do better.
NCCN.org/patients/feedback

Questions to ask

- Who can I talk to about help with housing, food, and other basic needs?
- What help is available for transportation, childcare, and home care?
- What other services are available to me and my caregivers?
- How can I connect with others and build a support system?
- Who can I talk to if I don't feel safe at home, at work, or in my neighborhood?

"You'll get through this! It may take a long time to heal, so be patient and do one day at a time. There are many resources and survivors that are available, just reach out when you're ready. I was not a 'group' person, but I found the conversations, either as a group or as 'one-on-one' extremely beneficial."



Words to know

biomarker
A substance found in body tissue or fluid that may be a sign of cancer.

biopsy
A procedure that removes fluid or tissue samples to be tested for a disease.

cancer burden
The amount or extent of cancer in the body.

cancer stage
A rating of the growth and spread of cancer.

carcinoma
Cancer that starts in cells that form the lining of organs and structures in the body.

chemotherapy
Drugs that kill cancer cells by damaging or disrupting the making of the genetic code.

clinical trial
A type of research that assesses health tests or treatments.

computed tomography (CT)
A test that combines many x-rays to make pictures of the inside of the body.

contrast
A substance put into your body to make clearer pictures during imaging tests.

endoscope
A thin, long tube fitted with tools that is guided down the mouth.

epiglottis
A flap of tissue that closes when you eat or drink that prevents food and liquid from entering the windpipe (trachea).

gene
Coded instructions in cells for making new cells and controlling how cells behave.

histology
The structure of cells, tissue, and organs as viewed under a microscope.

HPV16
A type of HPV that is transmitted sexually and causes cancers of the cervix, anus, oropharynx (the middle part of the throat, behind the mouth), vagina, vulva, and penis.

human papillomavirus (HPV)
A group of more than 200 common viruses.

imaging
A test that makes pictures (images) of the insides of the body.

immune system
The body's natural defense against infection and disease.

immunotherapy
A treatment with drugs that help the body find and destroy cancer cells.

laryngoscope
A thin, long tube fitted with tools that is guided down the mouth to view the larynx (voice box).

lymph node
A small group of disease-fighting cells located throughout the body.

lymph node dissection
A type of surgery that removes some disease-fighting structures called lymph nodes.

lymph vessels
Tubes that carry lymph—a clear fluid containing white blood cells that fight disease and infection—throughout the body and connect lymph nodes to one another.

magnetic resonance imaging (MRI)
A test that uses radio waves and powerful magnets to make pictures of the insides of the body.

metastasis
The spread of cancer cells from the first tumor to another body part.

mutation
An abnormal change.

neck dissection
An operation that removes lymph nodes and other tissue in the neck area.

oropharynx
The middle part of the throat.

p16
A protein that slows cell division.

palliative care
Health care that includes symptom relief but not cancer treatment. Also sometimes called supportive care.

Panorex x-ray
A picture of the inside of the entire mouth, including the jaw.

performance status (PS)
A rating of a person's general level of fitness and ability to perform daily self-care tasks.

positron emission tomography (PET)
A test that uses radioactive material to see the shape and function of body parts.

primary treatment
The main treatment used to rid the body of cancer.

primary tumor
The first mass of cancer cells in the body.

prognosis
The likely course and outcome of a disease.

progression
The growth or spread of cancer after being tested or treated.

radiation therapy (RT)
A treatment that uses high-energy rays or related approaches to kill cancer cells.

radiotracer
A substance that releases small amounts of energy (radiation) that's put into the body to make pictures clearer.

recurrence
The return of cancer after a cancer-free period. Also called relapse.

resectable
Cancer that can be removed with surgery.

side effect
An unhealthy or unpleasant physical or emotional response to treatment.

soft palate
Muscular, soft portion of the back of the roof of the mouth. Behind the hard palate. Part of the oropharynx.

staging
The process of rating and describing the extent of cancer in the body.

standard of care
The best-known way to treat a particular disease based on past clinical trials. There may be more than one treatment regimen that is considered standard of care.

supportive care
Health care that includes symptom relief but not cancer treatment. Also called palliative.

surgery
An operation to remove or repair a part of the body.

surgical margin
The normal-looking tissue around the edge of a tumor that's removed during surgery.

targeted therapy
Treatment with drugs that target a specific or unique feature of cancer cells.

throat
A hollow, muscular tube inside the neck that starts behind the nose and ends at the top of the trachea (windpipe) and esophagus (the tube that goes to the stomach).

treatment plan
A written course of action through cancer treatment and beyond.

tumor
An abnormal mass of cells.

ultrasound
A test that uses sound waves to take pictures of the insides of the body.

unresectable
Cancer that can't be completely removed by surgery.



Let us know what you think!

Please take a moment to complete an online survey about the NCCN Guidelines for Patients.
NCCN.org/patients/response

NCCN Contributors

This patient guide is based on the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Head and Neck Cancers Version 1.2026. It was adapted, reviewed, and published with help from the following people:

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at the University of Pennsylvania
Philadelphia, Pennsylvania
800.789.7366 • pennmedicine.org/cancer

Case Comprehensive Cancer Center/
University Hospitals Seidman Cancer Center and
Cleveland Clinic Taussig Cancer Institute
Cleveland, Ohio
UH Seidman Cancer Center
800.641.2422 • uhhospitals.org/services/cancer-services
CC Taussig Cancer Institute
866.223.8100 • my.clevelandclinic.org/departments/cancer
Case CCC
216.844.8797 • case.edu/cancer

City of Hope National Medical Center
Duarte, California
800.826.4673 • cityofhope.org

Dana-Farber/Brigham and Women's Cancer Center |
Mass General Cancer Center
Boston, Massachusetts
877.442.3324 • youhaveus.org
617.726.5130 • massgeneral.org/cancer-center

Duke Cancer Institute
Durham, North Carolina
888.275.3853 • dukecancerinstitute.org

Fox Chase Cancer Center
Philadelphia, Pennsylvania
888.369.2427 • foxchase.org

Fred & Pamela Buffett Cancer Center
Omaha, Nebraska
402.559.5600 • unmc.edu/cancercenter

Fred Hutchinson Cancer Center
Seattle, Washington
206.667.5000 • fredhutch.org

Huntsman Cancer Institute at the University of Utah
Salt Lake City, Utah
800.824.2073 • healthcare.utah.edu/huntsmancancerinstitute

Indiana University Melvin and Bren Simon
Comprehensive Cancer Center
Indianapolis, Indiana
888.600.4822 • www.cancer.iu.edu

Johns Hopkins Kimmel Cancer Center
Baltimore, Maryland
410.955.8964
www.hopkinskimmelcancercenter.org

Mayo Clinic Comprehensive Cancer Center
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Jacksonville, Florida
Rochester, Minnesota
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904.953.0853 • Florida
507.538.3270 • Minnesota
mayoclinic.org/cancercenter

Memorial Sloan Kettering Cancer Center
New York, New York
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Moffitt Cancer Center
Tampa, Florida
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O'Neal Comprehensive Cancer Center at UAB
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866.587.4322 • cancer.northwestern.edu

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Siteman Cancer Center at Barnes-Jewish Hospital
and Washington University School of Medicine
St. Louis, Missouri
800.600.3606 • siteman.wustl.edu

St. Jude Children's Research Hospital/
The University of Tennessee Health Science Center
Memphis, Tennessee
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901.448.5500 • uthsc.edu

Stanford Cancer Institute
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health.ucdavis.edu/cancer

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858.822.6100 • cancer.ucsd.edu

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UCSF Helen Diller Family Comprehensive Cancer Center
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800.689.8273 • cancer.ucsf.edu

University of Colorado Cancer Center
Aurora, Colorado
720.848.0300 • coloradocancercenter.org

University of Michigan Rogel Cancer Center
Ann Arbor, Michigan
800.865.1125 • rogelcancercenter.org

University of Wisconsin Carbone Cancer Center
Madison, Wisconsin
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UT Southwestern Simmons Comprehensive Cancer Center
Dallas, Texas
214.648.3111 • utsouthwestern.edu/simmons

Vanderbilt-Ingram Cancer Center
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