



## Who treats laryngeal and hypopharyngeal cancers?

Based on your treatment options, you might have different types of doctors on your treatment team. These doctors can include:

- An **otolaryngologist** (also known as an *ear, nose, and throat*, or *ENT* doctor): a surgeon who treats certain diseases of the head and neck.
- A **radiation oncologist**: a doctor who treats cancer with radiation therapy.
- A **medical oncologist**: a doctor who treats cancer with medicines such as chemotherapy, targeted therapy, or immunotherapy.
- A **plastic surgeon**: a doctor who specializes in reconstructing or repairing parts of the body
- An **oral and maxillofacial surgeon**: a dental surgeon who treats diseases of the mouth, teeth, and jaws.

A **speech therapist**, an **audiologist**, and a **dietician** are also key players on your cancer care team. You'll meet with them before treatment starts so they can see how well you can swallow and make a nutrition plan for you to follow during treatment. Many other specialists could be involved in your care as well, including physician assistants, nurse practitioners, nurses, nutrition specialists, speech therapists, social workers, and other health professionals.

- [Health Professionals Associated with Cancer Care](#)

## Making treatment decisions

It's important to discuss all treatment options, including their goals and possible side effects, with your doctors to help make the decision that best fits your needs. For instance, if the cancer is too advanced to be cured, the goal may be to remove or destroy as much of the cancer as possible to keep the tumor from growing, spreading, or returning for as long as possible. Some of the treatments can also be used as palliative treatment if all the cancer cannot be removed. Palliative treatment is meant to relieve symptoms, such as pain or trouble swallowing, but it's not expected to cure the cancer.

It is often a good idea to seek a second opinion. A second opinion can give you more

## Thinking about taking part in a clinical trial

Clinical trials are carefully controlled research studies that are done to get a closer look at promising new treatments or procedures. Clinical trials are one way to get state-of-the-art cancer treatment. In some cases they may be the only way to get access to newer treatments. They are also the best way for doctors to learn better methods to treat cancer. Still, they're not right for everyone.

If you would like to learn more about clinical trials that might be right for you, start by asking your doctor if your clinic or hospital conducts clinical trials.

- [Clinical Trials](#)

## Considering complementary and alternative methods

You may hear about alternative or complementary methods that your doctor hasn't mentioned to treat your cancer or relieve symptoms. These methods can include vitamins, herbs, and special diets, or other methods such as acupuncture or massage, to name a few.

Complementary methods refer to treatments that are used along with your regular medical care. Alternative treatments are used instead of a doctor's medical treatment. Although some of these methods might be helpful in relieving symptoms or helping you feel better, many have not been proven to work. Some might even be harmful.

Be sure to talk to your cancer care team about any method you are thinking about using. They can help you learn what is known (or not known) about the method, which can help you make an informed decision.

- [Complementary and Integrative Medicine](#)

## Help getting through cancer treatment

People with cancer need support and information, no matter what stage of illness they may be in. Knowing all of your options and finding the resources you need will help you make informed decisions about your care.

Whether you are thinking about treatment, getting treatment, or not being treated at all, you can still get supportive care to help with pain or other symptoms. Communicating with your cancer care team is important so you understand your diagnosis, what

treatment is recommended, and ways to maintain or improve your quality of life.

Different types of programs and support services may be helpful, and can be an important part of your care. These might include nursing or social work services, financial aid, nutritional advice, rehab, or spiritual help.

The American Cancer Society also has programs and services – including rides to treatment, lodging, and more – to help you get through treatment. Call our National Cancer Information Center at 1-800-227-2345 and speak with one of our trained specialists.

- [Palliative Care](#)
- [Programs & Services](#)

### **Choosing to stop treatment or choosing no treatment at all**

For some people, when treatments have been tried and are no longer controlling the cancer, it could be time to weigh the benefits and risks of continuing to try new treatments. Whether or not you continue treatment, there are still things you can do to help maintain or improve your quality of life.

Some people, especially if the cancer is advanced, might not want to be treated at all. There are many reasons you might decide not to get cancer treatment, but it's important to talk to your doctors and you make that decision. Remember that even if you choose not to treat the cancer, you can still get supportive care to help with pain or other symptoms.

- [If Cancer Treatments Stop Working](#)

*The treatment information given here is not official policy of the American Cancer Society and is not intended as medical advice to replace the expertise and judgment of your cancer care team. It is intended to help you and your family make informed decisions, together with your doctor. Your doctor may have reasons for suggesting a treatment plan different from these general treatment options. Don't hesitate to ask your cancer care team any questions you may have about your treatment options.*

# **Surgery for Laryngeal and Hypopharyngeal Cancers**

larynx or hypopharynx. In almost all surgeries, the plan is to take out all of the cancer along with a rim (margin) of healthy tissue around it.

Surgery might be the only treatment needed for some early-stage cancers. It also might be used along with other treatments, like [chemotherapy](#) or [radiation](#), for later stage cancers.

After the cancer is removed, reconstructive surgery might be done to help make the changed areas look and work better.

## Endoscopic surgery

For this surgery, an [endoscope](#)<sup>3</sup> is passed down your throat to find the tumor. The endoscope is a long thin tube with a light and camera on the end of it. Using the camera, the doctor can see the tumor and pass long surgical instruments through the endoscope to find, biopsy, and treat some early-stage cancers of the larynx. For early-stage laryngeal cancer, studies have shown that endoscopic surgery can be as effective as radiation therapy.

## Vocal cord stripping

If the cancer or pre-cancer is confined to the surface of the vocal cords, this type of surgery can strip away the cancer and the superficial layers of tissue on the vocal cords. Most people can speak normally again after this operation.

## Laser surgery

Lasers can also be used through the endoscope. They can be used to excise (cut out) the tumor. This is sometimes called **transoral laser microsurgery (TLM)**.

## Laryngectomy

Laryngectomy is the removal of part or all of the larynx (voice box). It involves making an incision (cut) on the outside of the neck over the area of the Adam's apple.

**Partial laryngectomy:** Smaller cancers of the larynx often can be treated by removing only part of the voice box. There are different types of partial laryngectomies, but they all have the same goal: to take out all of the cancer while leaving behind as much of the larynx as possible.

In a **supraglottic laryngectomy**, only the part of your larynx above the vocal cords is removed. This procedure can be used to treat some supraglottic cancers, and will allow you to speak normally afterward.

For small cancers of the vocal cords, the surgeon might be able to remove the cancer by taking out only one side of the larynx (one vocal cord) and leaving the other behind. This is called a **hemilaryngectomy**. Some ability to speak remains after this surgery.

**Total laryngectomy:** This procedure removes your entire larynx. The trachea (windpipe) is then brought up through the skin of the front of your neck as a [stoma](#)<sup>4</sup> (or hole) that you breathe through (see the picture below). This is called a **tracheostomy**. If

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the size and location of the tumor and whether or not the lymph nodes look enlarged or abnormal on an [imaging test](#)<sup>7</sup>.

The two most common forms of neck dissection are the comprehensive neck dissection and the less extensive selective neck dissection. They differ in the amount of tissue removed from the neck.

- **Comprehensive neck dissection:** Some nerves, veins, and muscles might be removed, while still removing all of the lymph nodes in the neck.
- **Selective neck dissection:** No nerves, veins, or muscles are affected during this type of neck dissection and only lymph nodes in **selected** parts of the neck are removed. This type of surgery removes fewer normal structures to try to keep your shoulder and neck working normally.

## Thyroidectomy

Sometimes the cancer spreads into the thyroid gland and all or part of it must be removed. The thyroid sits in the front of your neck and wraps around to the sides of the trachea (windpipe). It makes hormones that control your metabolism and how your body uses calcium.

If all of the thyroid gland is removed, your body can no longer make the thyroid hormone it needs. In this case, you must take thyroid hormone (levothyroxine) pills to replace the loss of the natural hormone.

## Reconstructive surgery

These operations might be done to help restore the structure or function in areas affected by surgery to remove the cancer.

**Myocutaneous flaps:** Sometimes a muscle and attached piece of skin, from an area close to your throat, such as the chest (pectoralis major flap), may be partly removed and turned upward to reconstruct or rebuild part of your throat.

**Free flaps:** With the advances in microvascular surgery (sewing together small blood vessels under a microscope), surgeons now have many more reconstruction options. Tissues from other parts of your body such as a piece of intestine or a piece of arm muscle can be used to replace parts of your throat.

## Tracheostomy

A tracheostomy is made when the trachea (windpipe) is connected to a hole (stoma) in the front of the neck to help a person breathe by letting air in and out of the lungs through that hole. It may be used in certain cases.

For instance, after a partial laryngectomy or pharyngectomy, a temporary (short-term) tracheostomy may be needed to help protect your airway while you recover from surgery. To do this, a small plastic tube (a **trach tube** ;short for tracheostomy tube) is put into your trachea through a hole in the front of your neck. The tube stays in place for a short time, and is removed when it's no longer needed. You then breathe through your mouth and nose like you did before.

As described above, a permanent tracheostomy is needed after a total laryngectomy. In this case, the opening in the trachea is attached to a hole in the skin in the front of your neck. A trach tube or stoma cover may be needed to help keep the tracheostomy hole open. You will breathe through this opening instead of through your mouth and nose.

If a laryngeal or hypopharyngeal cancer is blocking the windpipe and is too big to remove completely, an opening may be made to connect the lower part of your windpipe to a stoma (hole) in the front of your neck to bypass the tumor and allow you to breathe more comfortably.

## Gastrostomy tube

Cancers in the larynx and hypopharynx might make it hard for you to swallow enough food to maintain good nutrition and a healthy weight. This can make you weak and make it harder to finish treatment.

Some people with laryngeal or hypopharyngeal cancer may need to have a feeding tube (usually called a **gastrostomy tube** or **G-tube**), put in place before treatment. A G-tube is put through the skin and muscle of your abdomen (belly) right into your stomach. The tube is often put in place with the help of a flexible, lighted instrument (endoscope) passed down your mouth and into the stomach. This is done while you are sedated (asleep). When it's placed through an [upper endoscopy](#)<sup>8</sup>, it's called a **percutaneous endoscopic gastrostomy**, or **PEG tube**. Another option is to put the tube in during an operation. Once in place, liquid nutrition and medicines can be put right into the stomach through the tube.

Often, the gastrostomy tube is only needed for a short time to help you get enough

nutrition during cancer treatment. The tube is often removed once you can swallow again after treatment. It's important to keep swallowing even when you're getting most of your nutrition through a G tube. This helps keep those muscles active and gives you a better chance of going back to swallowing normally after treatment is complete.

## Possible risks and side effects of surgery

All surgery carries some risks, including [blood clots](#)<sup>9</sup>, [infections](#)<sup>10</sup>, complications from anesthesia, and pneumonia. These risks are generally low but are higher with more complicated operations. Rarely, some people do not survive the surgery.

Patients who have a laryngectomy or pharyngectomy typically lose the ability to speak normally. Some people will need a tracheostomy after surgery. Less extensive operations can also affect speech in some cases. (See [Living as a Laryngeal or Hypopharyngeal Cancer Survivor](#)<sup>11</sup> for more about speech after surgery.)

Surgeries that involve the throat or voice box can lead to a gradual narrowing (stenosis) of the throat or larynx. Sometimes this can make it hard to breathe. If this happens, you might need a tracheostomy.

Throat or larynx surgeries might also sometimes make it hard to swallow well. This can affect how you eat, and might be severe enough to require a permanent feeding tube.

Laryngectomy and pharyngectomy can also lead to the development of a fistula (an abnormal opening between 2 areas that are not normally connected). Surgery may be needed to fix it.

A very rare but serious complication of neck surgery is rupture of a carotid artery (the large artery on either side of the neck).

## More information about Surgery

For more general information about surgery as a treatment for cancer, see [Cancer Surgery](#)<sup>12</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>13</sup>.

## Hyperlinks

1. [www.cancer.org/cancer/risk-prevention/tobacco/guide-quitting-smoking.html](http://www.cancer.org/cancer/risk-prevention/tobacco/guide-quitting-smoking.html)
2. [www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/detection-diagnosis-staging/staging.html](http://www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/detection-diagnosis-staging/staging.html)
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5. [www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/after-treatment.html](http://www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/after-treatment.html)
6. [www.cancer.org/cancer/diagnosis-staging/lymph-nodes-and-cancer.html](http://www.cancer.org/cancer/diagnosis-staging/lymph-nodes-and-cancer.html)
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10. [www.cancer.org/cancer/managing-cancer/side-effects/low-blood-counts/infections.html](http://www.cancer.org/cancer/managing-cancer/side-effects/low-blood-counts/infections.html)
11. [www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/after-treatment.html](http://www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/after-treatment.html)
12. [www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html](http://www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html)
13. [www.cancer.org/cancer/managing-cancer/side-effects.html](http://www.cancer.org/cancer/managing-cancer/side-effects.html)

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## Radiation Therapy for Laryngeal and Hypopharyngeal Cancers

- [Quit smoking before laryngeal and hypopharyngeal cancer treatment](#)
- [Types of radiation therapy for laryngeal and hypopharyngeal cancer](#)
- [Side effects of radiation therapy for laryngeal or hypopharyngeal cancer](#)

*Studies have shown that people who are treated at centers that treat a lot of head and neck cancers with radiation, tend to live longer. And because of the complicated types of surgeries, along with the need for coordination between cancer specialists to make a complete treatment plan, it's very important to have a cancer center and radiation oncologist who has experience treating these cancers.*

Radiation therapy uses high-energy x-rays or particles to kill cancer cells. It can be used in many ways to treat laryngeal and hypopharyngeal cancers:

- As the **main (primary) treatment** for some early-[stage](#)<sup>1</sup> laryngeal and hypopharyngeal cancers. If the cancer is small, it can often be destroyed by radiation and [surgery](#) isn't needed. This can help to preserve better voice quality.
- For people who are **too sick to have surgery**.  
**After surgery (adjuvant treatment)**, to try to kill any small areas of cancer (too small to be seen by the naked eye) that might be left behind and help lower the

see [How To Quit Using Tobacco](#)<sup>5</sup>.

## **Types of radiation therapy for laryngeal and hypopharyngeal cancer**

The types of radiation therapy that might be used to treat laryngeal and hypopharyngeal cancer are:

- External beam radiation therapy
- Brachytherapy

### **External beam radiation therapy**

The main type of radiation therapy used to treat laryngeal and hypopharyngeal cancer is [external beam radiation therapy](#)<sup>6</sup>. External beam radiation therapy (EBRT) focuses radiation from a source outside the body on the cancer.

Before your treatments start, the radiation team will use a \_\_\_\_\_

- **Hypofractionation radiation:** a slightly higher radiation dose is given each day to lessen the number of treatments (for example, a higher radiation dose is given each day for 6 weeks, not the standard 7 weeks)

There are also more advanced EBRT techniques that help doctors focus the radiation more precisely:

- **Three-dimensional conformal radiation therapy (3D-CRT):** 3D-CRT uses special computers to map the location of the tumor precisely. Several radiation beams are then shaped and aimed at the tumor from different directions, which makes it less likely to damage normal tissues.
- **Intensity modulated radiation therapy (IMRT):** IMRT is a form of 3D-CRT. It uses a computer-driven machine that actually moves around the patient as it delivers radiation. Along with shaping the beams and aiming them at the tumor from several angles, the intensity (strength) of the beams can be adjusted to limit the dose reaching nearby normal tissues. This helps the doctor deliver a higher dose to the tumor.

## Brachytherapy

Internal radiation therapy, also known as brachytherapy, puts radioactive material right into or near the cancer. It's rarely used to treat laryngeal and hypopharyngeal cancer as first treatment, but might be used if the cancer recurs (comes back).

## Side effects of radiation therapy for laryngeal or hypopharyngeal cancer

If you are going to get radiation therapy, it's important to ask your doctor about the possible side effects, so you know what to expect.

Common [side effects](#)<sup>8</sup> depend on where the radiation is aimed and can include:

- Skin problems in the area being treated, ranging from redness to blistering and peeling
- [Mouth sores](#)<sup>9</sup>
- Dry mouth
- Worsening of hoarseness





therapy, or massage therapy might be helpful.

### **Damage to the carotid artery**

A person who has had radiation to the neck area might have an increased risk of stroke many years after treatment. This might be because of health problems that were already present before radiation such as narrowing of the artery or an increase in plaque both of which can decrease blood flow . People who smoke are also at risk. Because of this some doctors might schedule regular ultrasounds for you after treatment, to keep an eye on your arteries.

### **More information about radiation therapy**

To learn more about how radiation is used to treat cancer, see [Radiation Therapy](#)<sup>12</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>13</sup>.

### **Hyperlinks**

1. [www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/detection-diagnosis-staging/staging.html](http://www.cancer.org/cancer/types/laryngeal-and-hypopharyngeal-cancer/detection-diagnosis-staging/staging.html)
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# Chemotherapy for Laryngeal and Hypopharyngeal Cancers

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- [How is chemotherapy used to treat laryngeal or hypopharyngeal cancer?](#)
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- [How is chemotherapy given?](#)
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- [Possible side effects of chemo for laryngeal and hypopharyngeal cancers](#)
- [More information about chemotherapy](#)

## Quit smoking before laryngeal and hypopharyngeal cancer treatment

**If you smoke, you should quit.** Smoking during chemotherapy treatment can cause more side effects and can cause the chemo drugs to not work as well. It can give you a higher chance of getting an infection and is linked to worse outcomes. Smoking after treatment can also increase the risk of the cancer coming back and of getting another new cancer. **Quitting smoking (before treatment starts, if possible) is the best way to improve your chances of survival.** It is never too late to quit. For help, see [How to Quit Using Tobacco](#)<sup>1</sup>.

## How is chemotherapy used to treat laryngeal or hypopharyngeal cancer?

Chemotherapy (chemo) is treatment with anti-cancer drugs that are injected into a vein or taken by mouth. These drugs enter the bloodstream and reach most parts of the body. Chemo may be used at different times during treatment for laryngeal and hypopharyngeal cancers:

- **As the primary (main) treatment:** For more advanced cancers of the larynx, chemo is given along with [radiation](#). This treatment, called **chemoradiation**, is commonly used for laryngeal and hypopharyngeal cancers. It can allow some patients to avoid having a [laryngectomy](#) which means they won't have trouble speaking after treatment. It can also be used as the main treatment for people who



be given either as an infusion over a certain period of time. This can be done in a doctor's office, infusion center, or in a hospital setting.

Often, a [slightly larger and sturdier IV<sup>5</sup>](#) has to be put in the vein system to give chemo. These are known as central venous catheters (CVCs), central venous access devices (CVADs), or central lines. They are used to put medicines, blood products, nutrients, or fluids right into your blood. They can also be used to take blood for testing. There are many different kinds of CVCs. The most common types are the port and the PICC line.

Chemo is given in cycles, followed by a rest period to give you time to recover from the effects of the drugs. Cycles can be weekly or every 3 weeks long. The schedule varies depending on the drugs used. For example, with some drugs, the chemo is given only on the first day of the cycle. With others, it is given for a few days in a row, or once a week. Then, at the end of the cycle, the chemo schedule repeats to start the next cycle.

Adjuvant or neoadjuvant chemo can be given over weeks or months, depending on the drugs used. The length of treatment depends on how well it is working and what side effects you might have.

## **Chemotherapy drugs used to treat laryngeal and hypopharyngeal cancers**

Chemo drugs work by attacking cells that are dividing quickly, this includes cancer cells. Some of the chemo drugs commonly used for cancers of the larynx and hypopharynx include:

- Cisplatin
- Carboplatin
- 5-fluorouracil (5-FU)
- Docetaxel (Taxotere)
- Paclitaxel (Taxol)
- Methotrexate
- Capecitabine (Xeloda), a pill that is changed into 5-FU once it gets to the tumor.

You might be treated with a single drug or 2 or more together. Commonly used chemotherapy drugs include cisplatin or carboplatin alone, or in combination with 5-FU, but other combinations are also available.

## **Possible side effects of chemo for laryngeal and hypopharyngeal**

## cancers

Chemo drugs kill cells that are dividing quickly, which is why they work against cancer cells. But other cells, such as those in the lining of the mouth and intestines, and the hair follicles, are also dividing quickly. Chemo can affect these cells too, which can lead to [side effects](#)<sup>6</sup>.

The side effects of chemo depend on the type and dose of drugs used, their dose, and how long you take them. Side effects tend to be worse when chemo is given along with radiation. Common side effects of chemo can include:

- Nausea and vomiting
- Loss of appetite or weight loss
- Mouth sores
- Diarrhea
- Hair loss
- Nail changes
- Skin changes
- Ringing in the ears

Chemo can also affect the blood-forming cells in the bone marrow, which can lead to:

- An increased chance of [infection](#)<sup>7</sup> (from low white blood cell counts)
- Easy bleeding or bruising (from a low blood platelet counts)
- Fatigue or shortness of breath (from low red blood cell counts)

Other side effects are specific to certain drugs. Ask your cancer care team about the possible side effects of the specific drugs you are getting. For example:

**Neuropathy** (nerve damage) is a common side effect of cisplatin, docetaxel, and paclitaxel, which can lead to numbness, tingling, or even pain in the hands and feet. The nerve damage caused by cisplatin can also cause hearing loss. This often improves once treatment is stopped, but it can last a long time in some people. If you might be treated with any of the drugs mentioned here, talk with your doctor about the side effects beforehand, and let them know right away if you start having numbness or tingling feelings or other side effects.

**Hand-foot syndrome** can happen during treatment with capecitabine or 5-FU (when given as an infusion). It can start out as redness in your hands and feet, and then might progress to pain and sensitivity your palms and soles. If it worsens, the skin may blister

or peel, sometimes leading to painful sores. It's important to tell your doctor right away about any early symptoms, such as redness or sensitivity, so that steps can be taken to keep things from getting worse.

Although most side effects get better once treatment is stopped, some can last a long time or even last forever. If your doctor is planning treatment with chemo, be sure to discuss the drugs that will be used and their possible side effects. Once chemo is started, let your health care team know if you have side effects, so they can be treated. There are ways to prevent or treat many of the side effects of chemo. For instance, there are many drugs that can help prevent or treat nausea and vomiting. In some cases, the doses of the chemo drugs may need to be lowered or treatment may need to be delayed or stopped to help keep the problem from getting worse.

## More information about chemotherapy

For more general information about how chemotherapy is used to treat cancer, see [Chemotherapy](#)<sup>8</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>9</sup>.

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# Targeted Therapy for Laryngeal and Hypopharyngeal Cancers

- [What is targeted drug therapy?](#)
- [Drugs that target cancer cells with EGFR changes](#)
- [Possible side effects of drugs that target EGFR](#)
- [More information about targeted therapy](#)

## What is targeted drug therapy?

Targeted drug therapy is the use of medicines that target or are directed at proteins on cancer cells that help them grow, spread, and live longer. These drugs work to destroy cancer cells or slow their growth. Their side effects are different from [chemotherapy](#)<sup>1</sup> (sometimes less severe) and many are taken as a pill. Targeted drug therapy can be used to treat laryngeal and hypopharyngeal cancers.

Some targeted drugs, for example, monoclonal antibodies, work in more than one way to control cancer cells and may also be considered [immunotherapy](#)<sup>2</sup> because they boost the immune system.

## Drugs that target cancer cells with EGFR changes

Epidermal growth factor receptor (EGFR) is a protein that helps cancer cells grow. Drugs that target EGFR can be used to treat some advanced laryngeal and hypopharyngeal cancers.

### Cetuximab for laryngeal or hypopharyngeal cancers

Cetuximab (Erbix) is a [monoclonal antibody](#)<sup>3</sup>, which is a man-made version of an immune system protein that targets EGFR. Laryngeal and hypopharyngeal cancer cells often have more than normal amounts of EGFR. By blocking EGFR, cetuximab can slow or stop cancer cell growth.

Cetuximab might be combined with [radiation therapy](#) for people with more advanced cancers, such as those that have spread locally but are not candidates for chemotherapy. Sometimes cetuximab might be combined with chemo drugs like cisplatin and 5FU in cases where the cancer has come back or has spread to distant parts of the body.

Cetuximab is given by infusion into a vein (IV), either once a week or every other week.

## Possible side effects of drugs that target EGFR

The most common side effects of cetuximab are skin problems such as an acne-like rash on the face and chest during treatment, which can sometimes lead to [infections](#)<sup>4</sup>. An antibiotic cream or ointment may be prescribed to help lessen the skin rash and related infections. Developing this rash might suggest the cancer is responding to treatment.

Other side effects can include headache, [tiredness](#)<sup>5</sup>, [fever](#)<sup>6</sup>, and [diarrhea](#)<sup>7</sup>. A rare but serious side effect of cetuximab is an allergic reaction during the first infusion, which could cause problems with breathing and low blood pressure. You will be given medicine before treatment to help prevent this.

Talk to your doctor about the side effects you should watch for and what can be done to help prevent or treat them.

## More information about targeted therapy

To learn more about how targeted drugs are used to treat cancer, see [Targeted Cancer Therapy](#)<sup>8</sup>.

To learn about some of the side effects listed here and how to manage them, see [Managing Cancer-related Side Effects](#)<sup>9</sup>.

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# Immunotherapy for Laryngeal and Hypopharyngeal Cancers

- [Immune checkpoint inhibitors](#)
- [More information about immunotherapy](#)

Immunotherapy is the use of medicines that help a person's own immune system find and destroy cancer cells more effectively.

## Immune checkpoint inhibitors

An important part of your immune system is its ability to keep itself from attacking normal cells. To do this, it turns “checkpoints” or proteins on immune cells on (or off) to start an immune response. Cancer cells sometimes use these checkpoints to avoid being attacked by the immune system.

Drugs that target these checkpoints (called **checkpoint inhibitors**) can be used to treat some people with laryngeal and hypopharyngeal cancer.

## PD-1 inhibitors

that has spread to other parts of the body, pembrolizumab can be used first, either alone or in combination with chemotherapy, unless the person is not a candidate for immunotherapy. Nivolumab and pembrolizumab can also be used by themselves if chemotherapy stops working.

These drugs are given as an intravenous (IV) infusion, typically every 3, 4, or 6 weeks.

### **Possible side effects of checkpoint inhibitors**

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## Hyperlinks

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## Treating Laryngeal and Hypopharyngeal Cancers by Stage

- [Laryngeal cancers](#)
- [Hypopharyngeal cancers](#)
- [Laryngeal and hypopharyngeal cancers that progress or recur after treatment](#)

Treatment of laryngeal or hypopharyngeal cancer is based largely on the [stage](#)<sup>1</sup> (extent) of the cancer, but other factors are also important, such as your overall health and your personal preferences.

Talk to your doctor if you have any [questions](#)<sup>2</sup> about the recommended treatment plan. Ask if the treatment will change how you look, talk, breathe, and eat.

**Smoking during cancer treatment is linked to more side effects, worse outcomes, and reduced benefit of treatment. It is best to stop smoking completely before starting treatment. Smoking also increases the risk of the cancer coming back after treatment as well as the risk of getting a new cancer. [Quitting smoking](#)<sup>3</sup> for good is the best way to improve your survival.**

### Laryngeal cancers



## Stage 0

These cancers are almost always glottic (vocal cord) cancers that are found early because of voice changes. They are nearly always curable with either [endoscopic surgery](#) or [radiation therapy](#). The patient is then watched closely to see if the cancer returns. If the cancer does come back, radiation can be used.

At this stage, almost all cancers can be cured without major surgery. But, it's important for people to know that if they continue to smoke, this makes treatment less likely to work and increases the chance that another tumor will develop.

## Stage I and II laryngeal cancers

Most stage I and II laryngeal cancers can be treated successfully without removing the whole larynx.

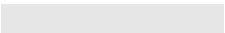
Either [radiation](#) alone or surgery with a [partial laryngectomy](#) can be used in most people. Many doctors use radiation therapy for smaller cancers. Voice problems tend to be less with radiation therapy than with partial laryngectomy, and there tend to be fewer problems with radiation treatment.

The treatment for glottic (vocal cord) cancers and supraglottic cancers (those starting above the vocal cords) is slightly different.

**Glottic cancer:** Some early glottic cancers might be treated by removing the vocal cord with cancer ([cordectomy](#)), or even by [laser surgery](#). [Radiation](#) or [surgery](#) is usually enough to treat most glottic cancers unless there are signs that the treatment might not have cured the cancer (such as finding cancer cells at the edge of the removed tumor). If you need more treatment after surgery, your options might include radiation therapy, [chemoradiation](#), or surgery to remove more of the larynx.

**Supraglottic cancer:** Supraglottic cancers are more likely to spread to the [lymph nodes](#)<sup>4</sup> in the neck. If you're having surgery for supraglottic laryngectomy, the surgeon might also remove lymph nodes from your neck (called a lymph node dissection). If your treatment is radiation therapy alone, you will also get radiation to the lymph nodes in the neck. If, after surgery, the cancer is found to have features that make it more likely to come back, more treatment (such as radiation therapy, chemoradiation, or more extensive surgery) might be needed.

## Stage III and IV laryngeal cancers

The main options for initial treatment for these cancers are [surgery](#), chemotherapy followed by chemoradiation, or [chemotherapy](#) with [radiation](#). Radiation therapy alone (or with the [targeted drug cetuximab](#)) may be an option for people who cannot tolerate more intensive treatments. 

These cancers are often harder to treat than laryngeal cancers. Because they don't cause symptoms when they're small, most are already at an advanced [stage](#)<sup>7</sup> when they're diagnosed. Tumors in this area also tend to spread to the [lymph nodes](#)<sup>8</sup>, even when there's no obvious mass in the neck. Because of this, treatment of the lymph nodes in the neck is often recommended.

### Stage I hypopharyngeal cancers

The main options for initial treatment of these cancers are [surgery](#)<sup>9</sup> with or without [radiation](#) to the lymph nodes.

Surgery includes removing all or part of the pharynx (throat) as well as lymph nodes on one or both sides of the neck (lymph node dissection). The larynx (voice box) often needs to be removed as well. People who have a high chance of the cancer returning (based on what's found during surgery) might then be treated with radiation or [chemotherapy](#) combined with radiation (chemoradiation).

Some patients with small tumors may get radiation as their main treatment. The cancer is assessed again after the treatment is complete and if there's any cancer left, surgery is done.

### Stage II, III, and IV hypopharyngeal cancers

One option to treat these cancers is [surgery](#) to remove the pharynx, larynx, thyroid gland, and [lymph nodes](#)<sup>10</sup> in the neck. This is usually followed by [radiation](#) alone or radiation with [chemo](#), especially if there's a high chance that the cancer will come back based on what is found during surgery.

Another option is to first treat with both radiation and chemo ([chemoradiation](#)). If any cancer remains after treatment, surgery can try to remove it.

A third option is to get chemotherapy as the first treatment, called **induction** chemotherapy. This is usually followed by radiation therapy or chemoradiation, depending on how much the tumor shrinks. If the tumor does not shrink, surgery might be done. If the lymph nodes in the neck are still enlarged after treatment, surgery can be done to remove them (lymph node dissection).

Cancers that are too big or have spread too far to be completely removed by surgery are often treated with radiation, usually combined with chemo or [cetuximab](#). Another option might be treatment with an immunotherapy drug, either alone or with chemotherapy. Sometimes, if the tumor shrinks enough, surgery to remove the tumor



A distant recurrence, where radiation therapy and surgery are not options, can be treated with immunotherapy alone or immunotherapy combined with chemotherapy. Another option might be treatment with a targeted agent, either alone or with chemotherapy. Chemoradiation might also be used, if a person can physically tolerate it.

If there are only a few tumors, surgery may be done. Radiation or chemo are also options.

Chemotherapy, immunotherapy or chemoradiation can be used to help control the cancer and ease any problems it might be causing. (This is called [palliative or supportive care](#)<sup>16</sup>.)

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