About Laryngeal and Hypopharyngeal Cancer

Overview and Types

If you have been diagnosed with laryngeal or hypopharyngeal cancer or are worried about it, you likely have a lot of questions. Learning some basics is a good place to start.

- What Are Laryngeal and Hypopharyngeal Cancers?

Research and Statistics

See the latest estimates for new cases of laryngeal and hypopharyngeal cancers and related deaths in the US and what research is currently being done.

- Key Statistics for Laryngeal and Hypopharyngeal Cancers
- What’s New in Laryngeal and Hypopharyngeal Cancer Research and Treatment?

What Are Laryngeal and Hypopharyngeal Cancers?

Laryngeal and hypopharyngeal cancers are considered head and neck cancers. There are many different head and neck cancers\(^1\) and they are named depending on where
the cancer starts. Cancer starts when cells in the body begin to grow out of control.

- Cancers that start in the larynx (voice box) are called laryngeal cancers
- Cancers that start in the hypopharynx (lower throat) are called hypopharyngeal cancers

Laryngeal and hypopharyngeal cancers start in the lower part of the throat. Both types of cancers are covered here because these 2 structures are close to each other.

Ask your doctor to write down the exact kind of cancer you have.

**The information here focuses on laryngeal and hypopharyngeal cancers.**

**The larynx**

The larynx is your voice box. It contains the vocal cords, one of the organs that help you speak. It’s found in the neck, above the opening of the trachea (windpipe). There, it helps keep food and fluids from entering your trachea. The larynx has 3 parts:

- The **supraglottis** is just above the vocal cords. It contains the epiglottis, which is a flap of tissue that closes off the larynx when you swallow. This keeps food and fluids from going into your lungs. About one-third of larynx cancers start here.
- The **glottis** contains the vocal cords. Most larynx cancers start here.
- The **subglottis** is below the vocal cords. Only about 5% of larynx cancers start in this area.

Treatment of cancer that starts in the larynx is based on which part it started in.

Your larynx and vocal cords have several functions:

- The larynx produces sound for speaking. The vocal cords move and come together to change the sound and pitch of your voice.
- The larynx protects your airway when you swallow. The epiglottis and vocal cords close tightly when you swallow to keep food and fluids from entering your lungs.
- The vocal cords open naturally when you breathe so that air can get in and out of your lungs.
The hypopharynx

The hypopharynx is the lower part of the throat (pharynx) that lies right behind your larynx. The hypopharynx is the entrance into the esophagus (the tube that connects your throat to your stomach). When you swallow foods and liquids, they pass through your throat to your stomach. The hypopharynx helps make sure that food goes around the larynx and into the esophagus and not into the larynx.

Ask your doctor to explain to you where your cancer is located. Use the 3D interactive model to see more.
Types of larynx and hypopharynx cancers
Squamous cell carcinomas

Almost all cancers in the larynx or hypopharynx develop from thin, flat cells called squamous cells, which make up the inner lining of these 2 structures. Cancer that starts from squamous cells is called squamous cell carcinoma or squamous cell cancer.

Carcinoma in situ (CIS) is the earliest form of cancer. In CIS, the cancer cells are only seen in the cells lining the larynx or hypopharynx. They haven't grown into deeper layers or spread to other parts of the body. Most of these early cancers can be cured, but if CIS isn't treated, it can develop into an invasive squamous cell cancer that can destroy nearby tissues and spread to other parts of the body.

Other cancers

Other rare types of cancer can also start in the larynx or hypopharynx.

Minor salivary gland cancers: Some parts of the larynx and hypopharynx have tiny glands called minor salivary glands under their lining. These glands make mucus and saliva to lubricate and moisten the area. Cancer rarely develops from the cells of these glands.

Sarcomas: The shape of the larynx and hypopharynx depends on a framework of connective tissues and cartilage. Cancers like chondrosarcomas or synovial sarcomas can develop from connective tissues of the larynx or hypopharynx, but this is extremely rare.

Other rare types of laryngeal cancer include lymphomas, neuroendocrine tumors, and plasmacytomas.

This information focuses on squamous cell cancer of the larynx and hypopharynx.

To learn more about how cancer starts and spreads, see What Is Cancer?

Hyperlinks

4. www.cancer.org/treatment/understanding-your-diagnosis/what-is-cancer.html
References


Last Revised: January 19, 2021

Key Statistics for Laryngeal and Hypopharyngeal Cancers

How common is laryngeal cancer?

The American Cancer Society’s most recent estimates for laryngeal cancer in the United States for 2023 are:
• About 12,380 new cases of laryngeal cancer (9,900 in men and 2,480 in women)
• About 3,820 people (3,070 men and 750 women) will die from laryngeal cancer

About 60% of laryngeal cancers start in the glottis (the area containing the vocal cords), while about 35% develop in the supraglottic area (above the vocal cords). The rest develop in either the subglottis (below the vocal cords) or overlap more than one area so that it is hard to tell where they started.

Most people diagnosed with laryngeal cancer are 55 or older; a very small number of people diagnosed are younger than 55. The average age of people diagnosed with laryngeal cancer is about 66.

Black men are more likely to develop laryngeal cancer than White men and are more likely to die from it. It is also much more common in men than women.

The rate of new cases of laryngeal cancer is falling by about 2% to 3% a year, most likely because fewer people are smoking. Over the past 10 years, the death rate is also dropping about 2% to 3% each year.

**Lifetime chance of getting laryngeal cancer**

Overall, the lifetime risk of developing laryngeal cancer is: about 1 in 190 for men and 1 in 830 for women. A number of other factors (see Risk Factors for Laryngeal and Hypopharyngeal Cancer¹) can also affect your risk for developing laryngeal cancer.

**How common is hypopharyngeal cancer?**

Cancers of the hypopharynx are very rare. In the United States, only about 2,000 to 4,000 cancers will start in the hypopharynx.

Survival statistics for these cancers are discussed in Survival rates for laryngeal and hypopharyngeal cancers, by stage².

Visit the American Cancer Society’s Cancer Statistics Center³ for more key statistics.

**Hyperlinks**

References


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What’s New in Laryngeal and Hypopharyngeal Cancer Research and Treatment?

Research into the causes\(^1\), prevention\(^2\), and treatment\(^3\) of laryngeal and hypopharyngeal cancers is now being done at many medical centers, university hospitals, and other institutions around the world.
Gene changes in laryngeal and hypopharyngeal cancers

A lot of research is being done to learn how changes in certain genes\(^4\) cause cells in the larynx or hypopharynx to become cancer. As doctors learn more about these gene changes, it could help them better identify which cancers are going to be harder to treat or are more likely to come back after treatment.

Researchers hope this information might also lead to better tests for early detection and to new treatments.

Treatment

In the coming years, promising new forms of treatment may work better and cause fewer long-term treatment-related changes in how a person eats and speaks.

Surgery

Doctors continue to improve surgery techniques to limit the amount of normal tissue that's removed along with the tumor. This might help lessen side effects\(^5\) after treatment.

One surgery technique now being studied is transoral robotic surgery (TORS). In this approach, the surgeon operates by precisely moving robotic arms holding long surgical tools that are passed down the throat. TORS uses smaller incisions (cuts), so it might lessen the side effects and long-term changes from surgery. Doctors are looking at using TORS instead of more extensive open surgery for early-stage tumors.

Transoral videolaryngoscopic surgery or TOVS is another surgical method that might prove helpful in removing small tumors and saving healthy tissue. In TOVS, the surgery is done using a scope that’s put in through the mouth. The doctor looks into the scope to see inside and uses long, thin tools to take out the tumor.

Chemotherapy and chemoradiotherapy

New combinations of chemotherapy\(^6\) and immunotherapy\(^7\) drugs are being studied with different radiation techniques, schedules, and doses to find a better tolerated and/ more effective treatment approach than the standard chemoradiation. You may ask your doctor if there are any clinical trials that are appropriate for you.

Targeted therapy
**Targeted therapy** drugs attack specific genes and proteins in or around cancer cells that help them grow. These drugs work differently from standard chemotherapy drugs because they target cancer cells and cause less damage to normal cells. They may work in some cases when chemo drugs don't, and they often have different side effects. Targeted therapies are used to treat many kinds of cancer. Studies are looking at whether they might help treat laryngeal and hypopharyngeal cancers, too.

**EGFR inhibitors:** Squamous cell cancers of the larynx and hypopharynx (and other head and neck cancers) often have abnormally high levels of the epidermal growth factor receptor (EGFR) protein. EGFR helps the cancer cells grow out of control. Drugs that block EGFR, such as cetuximab, can slow cancer cell growth. Cetuximab (Erbitux) is approved for use in some head and neck cancers, and several other EGFR inhibitors are now being studied. Cetuximab is also being studied in combination with other targeted drugs or with immunotherapy drugs. These drugs seem to work best when combined with other treatments, like radiation and chemotherapy.

**Immunotherapy**

Immunotherapy is the use of medicines that help a person’s own immune cells find and destroy cancer cells. It can be used to treat some people with laryngeal or hypopharyngeal cancer.

The immunotherapy drugs, pembrolizumab and nivolumab, can be used in people whose laryngeal or hypopharyngeal cancers have spread or have come back after chemoradiation. Studies are now looking to see if these drugs alone or used along with chemotherapy might be used upfront with surgery or radiation to treat early-stage cancers.

**Hyperlinks**

5. [www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html](http://www.cancer.org/treatment/treatments-and-side-effects/physical-side-effects.html)
cancer/treating/immunotherapy.html


References


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