

# Cancer of the Larynx

## Patient information

### *Cancer of the Larynx*

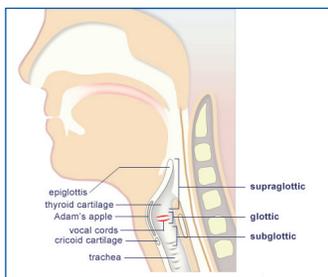
If you have cancer of the larynx, you probably have many questions, like:

- *What happens next?*
- *What treatments are available for you?*
- *How is your life going to change after you receive those treatments?*

This brochure will give you some answers about laryngeal cancer and how it is treated with such things as radiotherapy, chemotherapy and surgery.

### *What is the larynx?*

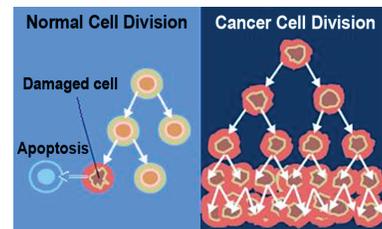
The larynx, also called the voice box, is a small organ in your throat. It is where the vocal cords are, which allow you to speak. The larynx is in your neck right behind your Adam's apple (also called thyroid cartilage). It has three parts : the supraglottic, glottic and subglottic.



- The supraglottic area is found above the vocal cords. It includes the epiglottis, a flap of tissue that covers your airway when you are swallowing to stop you from choking.
- The glottic area includes the vocal cords and a small amount of tissue above and below them.
- Finally, the subglottic area begins 1 centimetre below the vocal cords and extends to the second bump of cartilage (called cricoid cartilage) that you can feel in your neck below the Adam's apple .

### *What is cancer?*

Your body is made of billions of cells that are always being replaced by new ones. When a cell gets too old it dies by itself or is killed by your body, and a brand-new cell comes and takes its place. The growth of these new cells is controlled by messages sent from your body and from each cell



A cancer tumour happens when the wrong message is sent. This causes uncontrolled cell growth.

There are two types of tumours:

- Benign tumours are cells that grow into a lump that does not grow into the normal tissue in your body.
- Malignant tumours (cancer) are cells that turn into a lump. This lump can grow into the surrounding normal tissue and spread to other organs through your blood (metastases: ma-tas-ta-sees).

### *What is laryngeal cancer?*

Smoking, drinking alcohol, and even acid from your stomach can damage the cells in your larynx. Cells that don't fix themselves can turn into cancer.

In the larynx, the most common cancers happen in the glottic area . This will give your voice hoarseness because the cancer affects the vocal cords. Supraglottic cancers can also cause voice hoarseness. Other symptoms include sore throat, a hard time swallowing, ear pain, or the feeling of a lump in the neck. However, subglottic cancers can spread before they are caught because they often do not show symptoms early.

### ***What can I do to prevent this cancer?***

Stop smoking and lower the amount of alcohol you drink. Only less than 5 per cent of patients diagnosed with cancer of the larynx have never smoked in their life! Smoking increases your chances of getting laryngeal cancer by 5 to 25 times compared with someone who does not smoke. Drinking alcohol increases the risk by 2 to 6 times compared with someone who does not drink. If you do both your risk of getting laryngeal cancer is 40 times higher than someone who does not smoke or drink.

If you are already diagnosed with laryngeal cancer, it is very important that you stop smoking and drinking. It will help you heal and prevent further damage to your larynx.

### ***How is laryngeal cancer diagnosed?***

Your larynx can be seen by an ear-nose-throat (ENT) doctor using an instrument called a flexible laryngoscope. After your nostril has been frozen with a freezing spray, this tiny fiberoptic camera, in the shape of a tiny long tube, is gently pushed through one nostril. With the camera the doctor can see in the back of your nose and all the way down your throat to your vocal cords. This exam is painless and very useful to determine if you have cancer of the larynx.

Feeling your neck to look for lymph nodes where the cancer may have spread is also an important step to determine if you have cancer of the larynx.

If a tumour is seen or it is thought that you have one, your ENT doctor might want to get a better look. He or she might even take a tissue sample (biopsy) of your larynx. This will be done in the operating room. You will need to be put to sleep for a short amount of time during the exam.

You may also have pictures taken of your neck (CT scan and/or MRI) to see if the tumour has moved into

any tissues in this area, to evaluate its size, and to plan any future treatment, like surgery. A chest x-ray can also be requested to see if the tumour has spread to other areas of the body. The lungs are the most common organ for early spread.

### ***What is the cancer staging that my doctor is talking about?***

If you have been told you have laryngeal cancer, you might hear your doctor talk about its “TNM” staging.

TNM staging tells you about the local and distant spread of the cancer, and helps doctors plan your treatment. Even though staging can become quite complex, here is some information to help you understand the basics:

“T” stands for tumour local spread.

- **T1 cancers:** vocal cords are still fully mobile
- **T2 cancers:** vocal cord mobility is impaired
- **T3 cancers:** vocal cords are fixed, which means they cannot move
- **T4 cancers:** the tumour has moved past the thyroid or cricoid cartilage and there is spread of the tumour past the larynx.

“N” stands for spread to the lymph nodes. This makes your lymph nodes grow bigger. This is detected by feeling your neck or by taking pictures of the inside of your neck.

- **N1 and N2a:** cancer has spread to one lymph node on one side of your neck
- **N2b:** cancer has spread to more than one lymph node on one side of your neck
- **N2c:** cancer has spread to lymph nodes on both sides of your neck
- **N3:** any lymph node bigger than 6 centimetres wide, approximately the size of your small finger

“M” stands for distant metastases.

- **M0**: no metastases in the body
- **M1**: metastases in the body, i.e. cancer of the larynx with lung metastases

The stage of laryngeal cancer is determined according to the following key:

Stage	TNM
Stage I (1)	T1N0M0
Stage II (2)	T2N0M0
Stage III (3)	T1,2,3N1M0 or T3N0M0
Stage IVA (4A)	T4N0,1M0 or any T, N2M0
Stage IVB (4B)	Any T, N3M0
Stage IV (5)	Any M1

A different prognosis and treatment is associated with every stage of laryngeal cancer. However these are constantly updated so you should talk directly to your ENT doctor about the meaning of the stages.

I have been told I have cancer of the larynx. What treatments are available for me?

It is important to us that we share with you our plan to help you win this important battle. Here is the list of ‘weapons’/treatments available to help beat laryngeal cancer:

**Commonly used:**

- Surgery
- Radiotherapy

**Occasionally used:**

- Chemotherapy

Depending on your medical condition, the medical team will decide which treatment or combination of treatments will be used to fight and win against this cancer.

A team of specialists treats patients with head and neck cancers. Depending on the treatment plan, the team may include one or more of the following specialists:

- surgeon (ENT)
- radiation oncologist
- medical oncologist
- plastic surgeon
- dentist
- nurses
- speech language pathologist
- nutritionist
- social worker
- physical therapists
- pain control specialist
- psycho/ psychiatry
- others

***What surgery is available to treat laryngeal cancer?***

Where you have surgery depends on where the cancer is found in the larynx. Based on the staging of your cancer and on what is seen after taking pictures of the inside of your neck, your doctor might decide to go ahead with removing the cancer by surgery. He or she will pick the surgical procedure that will give you the best chance of survival.

There are often two parts to a surgery to treat laryngeal cancer:

- The first part involves removing the tumour
- The second part involves treating the neck to remove lymph nodes where the cancer might have spread

## ❶ *The different procedures used to remove the tumours include:*

**Partial laryngectomy:** This surgery removes only part of the larynx.

- **Corpectomy:** Only the vocal cords are removed. This procedure is used for tumours in the vocal cords but only if the tumour is small and has not spread
- **Supraglottic laryngectomy:** This surgery removes the supraglottis only, and the vocal cords are not touched.
- **Hemilaryngectomy:** This surgery removes half of the larynx and therefore keeps one of the vocal cords. Speech is still possible after this surgery.

When removing part of the larynx, a temporary hole is usually created in the front of the windpipe (trachea) to help the patient breathe until swelling has decreased. The hole is called a tracheotomy and it is kept open with a small plastic device, or “trach tube.” It is usually temporary.

The inflated balloon of the “trach tube” is usually removed after 48 hours. As the patient starts to breathe better, the size of the tube is decreased over a few weeks until it is completely removed. The hole should then close by itself.

**Total laryngectomy:** This surgery removes the entire larynx. This means the connection between your nose or mouth and your lungs is gone so a new opening for your lungs to get air is created at the front of your neck. A small hole called a tracheostomy or stoma is made. It is kept open with a small plastic device and allows you to breathe normally. The only difference is that you lose your ability to moisten and warm the air before it reaches the lungs. This may cause thickened and dry secretion to sometimes build up in your windpipe and tracheostomy tube. If this happens you will need to be suctioned once in a while.

In almost all types of surgery, the doctor puts a feeding tube in the patient after the surgery because the swelling in the throat stops you from swallowing for a while. The tube goes from the nose to the stomach and is removed once you are able to swallow again. In the first few days, you will also have an intravenous line (a line that goes into the vein) to get fluids through your veins. If you need a feeding tube more than one week, a tube that goes directly into your stomach (PEG tube) or bowel (J-tube) might be inserted. The majority of patients return slowly to eating solid foods by mouth, but for a few patients, the feeding tube may have to be there for their lifetime.

## ❷ *The removal of lymph nodes can also be done in different ways:*

A lymph node dissection means taking out the lymph nodes in the neck. An ENT doctor might decide to take the lymph nodes out on one side of your neck, on both sides of your neck, or only in certain areas of your neck. It will depend on the stage of your cancer. Risks of this surgery include damaging the nerve that allows you to shrug your shoulders. There could also be other problems, which you should discuss with your doctor.

Despite surgery, your cancer might come back either as a new tumour, especially if you continue to smoke, or as a recurrence, either in the throat or elsewhere in the body. Even though the treatment tries to catch all tumour cells, some resist or spread without us knowing, and can build cancer again.

## *Will I lose my voice?*

In total laryngectomy, the voice box is completely removed, so you lose your voice. However, the speech pathologist can help you speak again through three options:

- **Esophageal speech:** Like in normal speech, air is swallowed and then breathed out while moving the throat muscles and the mouth. This can be hard to do.

- Electrolarynx: An electronic or mechanical device is installed in the neck. It provides the sound for speech.
- Tracheo-esophageal puncture (TEP): This is the most popular way to regain speech after total laryngectomy. At the time of surgery, a small connection between the windpipe (trachea) and the esophagus is made and a one-way valve is placed in this hole. To speak, the patient takes a breath and covers the stoma with a finger. Air then travels through the esophagus, makes it vibrate, and creates a sound for speech, which is shaped into words by the mouth.

### ***What is radiotherapy?***

This treatment uses high energy x-rays to kill cancer cells only in the treated area.

There are two techniques:

- A) External radiation therapy:*** radiation created by equipment outside the body.
- B) Internal radiation therapy:*** radioactive materials placed directly into or near the area where the cancer cells are found.

### ***What are the side effects of radiotherapy?***

Radiation therapy often causes unwanted side effects. Patients who receive radiation to the head and neck may experience redness, irritation, and sores in the mouth, dry mouth, thickened saliva, difficulty in swallowing, change of taste, or nausea.

There are also other side effects during treatment such as loss of taste, which may decrease appetite and affect nutrition, and earaches caused by hardening of earwax. You may notice some swelling or drooping of the skin under the chin and changes in the texture of the skin.

### ***A Word from Your Doctor Dr. Ricky Payne***

*Dear Patient,*

*As a healthcare professional, your well-being is very important to me. It is for this very reason that we are offering you this document to better inform you about the cancer you are battling.*

*If after having read this document you still have questions, please do not hesitate to ask them during your next appointment, or contact me at (514) 934-1934, ext. 34971.*

***Together we will beat cancer!***



*Special thanks*

We would like to acknowledge the time and efforts of Dr. Valérie Côté who volunteered to write this document to better inform our patients.

***Thank you Dr. Valérie Côté***



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**McGill University Health Centre**

**IMPORTANT : PLEASE READ**

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