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Tribute to Jean-Paul Tardif

We are proud to dedicate this guide to Jean-Paul Tardif, who, since his laryngectomy over 25 years ago, has been the driving force behind the development of services for people in Québec who have undergone similar surgery (laryngectomees). He is also the founder of the Fédération québécoise des laryngectomisés. It is thanks to his dedication, ready availability and innate sense of organization that Québec's laryngectomees now benefit from a well-integrated service network.

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Testimonia

Undergoing a total laryngectomy does not mean the end of a life but rather the beginning of a new one. Most definitely a different life, but one that can be as enjoyable and fulfilling as life prior to surgery.

Before, the word cancer used to make me stop and think, but it was always in regard to other people. Since then, things have changed: it now applies to me. This is an entirely different matter. I seriously wonder what is going to happen to me.



Yet when we look a little closer, we see that laryngeal cancer, or cancer of the larynx, is one of the cancers for which medicine has some solutions. These solutions include radiation therapy (also known as radiotherapy), a combination of radiation therapy and chemotherapy, or again, surgery. Regardless of the treatment, it is definitely not the end, but rather, a new beginning.

My doctor explained to me very clearly what a laryngectomy operation involved, but I was so upset that I hardly heard a word he said, and what's more, I didn't remember anything he told me. A perfectly normal reaction under the circumstances.

The purpose of this Guide is therefore to help you get a grip on your thoughts and build your new life. This is why I will be sharing my personal experience with you in the following pages.

It is important that you trust your doctor and the other healthcare providers involved, but above all, you must trust yourself. Think positively and you will see: your new life will be well worth living.

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Foreword

Learning that you will lose your vocal cords to cancer for the rest of your life comes as a major shock. The minute you hear the word *cancer* your mind becomes blurred and less receptive to the explanations given. Also, the low incidence of laryngeal cancer means that it receives little media coverage and is therefore largely unfamiliar to the public.

Above all, this Guide addresses individuals who have to undergo a total laryngectomy. It is designed to supplement the information given by healthcare providers in order to provide a thorough understanding of the situation and of the means that will help these people resume as normal a life as possible, as quickly as possible. It does not pretend to answer every possible question, but to give an overview of the most commonly encountered situations. You must never hesitate to ask your healthcare providers any questions that are on your mind.

This document is also intended for close family members and healthcare providers who are seeking to understand what the laryngectomized person (called a *laryngectomee*, or *lary* for short) is experiencing in order to offer more support during the rehabilitation process. Additional resources are listed at the end of this Guide in the Resource Directory section.

It is our hope that this document will help guide you as you embark on your new life!



Introduction

If you have been told that you will have to undergo a laryngectomy soon, or you have just had this type of surgery, then this Guide is designed specifically for you and your close family members.

Above all, this document seeks to complement the information you received at the hospital. It tries to answer the main questions raised about a laryngectomy and to describe the means available to help you cope with this situation.

It contains information on the early signs of laryngeal cancer, diagnostic methods, and lastly, the healthcare providers who will be helping you. The treatment of laryngeal cancer is covered in a separate chapter. The different reactions that people can have in the days following surgery and postoperative care are described in detail. This document also offers tips about returning home, work, leisure activities, family, your relationship with your partner, medical follow-up, and lastly, the different methods of communication available to you.

Take the time to read this Guide carefully, and to reread it as needed. If you still have unanswered questions, be sure to ask for help from the healthcare providers assisting you.

Diagnosis



Symptoms of Laryngeal Cancer

You have recently learned that you have laryngeal cancer. Did you notice certain signs that led you to consult a doctor? For example, did your voice sound hoarse? Or did you notice a lump in your neck area? Did you have difficulty breathing? Or swallowing? Did you find that certain movements were sometimes painful? Did you lose weight that you could not explain? Did your appetite suddenly shrink? These are all possible signs of laryngeal cancer, but there are other symptoms as well. In some cases, people will suffer from a pain in their ear because there are connections between the nerves in the ear and those in the larynx (voice box).

Regardless of whether you have one or more of these signs, they may signal the presence of a tumour in the larynx. This is why the otorhinolaryngologist – an ear, nose and throat (ENT) specialist – whom you consulted had to perform in-depth examinations of your head and neck in order to determine the exact nature of the problem.



Head and Neck Examinations

An *indirect laryngoscopy*, performed by an ENT specialist, consists of inserting a small mirror into the back of the mouth. Using a set of mirrors and light, the doctor explores the inside of the larynx and is able to see if a tumour is present, as well as its location, size and extent. This examination, which is often the first one you will have, influences the ENT physician's decision as to the means he or she will use to investigate the tumour in order to identify the best possible treatment.

The doctor also looks at the vocal cords using a flexible tube (scope) inserted through the nose. This procedure is known as *endoscopy*.

An X-ray exa the presence of the neck ar *study.* This se tube into the is injected int ently when it trasting spots if a cancer is

A tumour of the larynx can spread in the neck area, causing inflammation of the lymph nodes and an increase in their size. This is what the doctor checks for when he palpates your neck: he is examining your lymph nodes. The condition of the lymph nodes helps in assessing how far the disease has progressed.

An X-ray examination makes it possible to identify the presence of any suspicious mass and to determine its extent. The radiologist first takes an X-ray of the neck area, then a second X-ray called a *contrast study*. This second examination requires inserting a tube into the throat. A special dye (contrast solution) is injected into the area. As this agent reacts differently when it comes into contact with a tumour, contrasting spots will show on the radiographic images if a cancer is present.







A CT scan (tomodensitometry) involves a combination of X-rays and computer technology. It provides very detailed three-dimensional images of the bones, organs and tissues. The person being examined lies down on a table, which moves slowly while another device takes a series of photographs. Here again, it is useful to inject a special substance that makes certain body parts visible. This examination is painless and lasts anywhere from 15 to 60 minutes. During this time, the patient can communicate easily with the person performing the examination. Nuclear magnetic resonance imaging (NMRI) is a totally painless risk-free imaging technique that utilizes a magnetic field to produce a threedimensional image of the larynx. The patient is placed on a special sort of bed that slides into a tunnel, which is lit and ventilated and open at both ends. The examination lasts from 30 to 60 minutes and it is possible at all times to speak with the person performing the examination. Sometimes it is considered necessary to inject a contrast medium in order to see certain tissues more clearly.







If the examinations point to cancer, the doctor quickly performs a biopsy in order to make a definitive diagnosis. The biopsy involves removing a fragment of tissue (for laboratory analysis) during what is called a *direct laryngoscopy*. The procedure is performed in an operating room and requires general anaesthetic. In a laryngoscopy, a tube is inserted into the throat. At the end of the tube is a light and a magnifying lens. Once the doctor has located the tumour, he or she inserts a special instrument into the tube and removes a sample of tumour cells. There is virtually no pain after surgery, apart from slight temporary discomfort when you first awaken. If the results of the laryngeal examinations clearly show the presence of a cancer, the doctor will most probably want to proceed with treatment quickly. Very often, he or she will call on the expertise of colleagues specialized in radiation therapy and chemotherapy, and will work with them to determine the exact approach to be used. Following these examinations, the treatment proposed may include radiation therapy, chemotherapy, surgery, or a combination of these treatments.

In your case, the doctor has opted for surgery. He or she has explained to you what the surgery involves and which complementary treatments are recommended. A little more time, ranging from a few days to one or two weeks, is required to prepare for surgery and complete a series of complementary examinations. These examinations, which are common to many types of surgeries, serve to check the patient's ability to tolerate the surgery well, and include X-rays of the thorax (chest), blood and urine analyses, an electrocardiogram, and lastly, an examination of pulmonary functions. In addition, breathing exercises are sometimes required, again as better preparation for the surgery.



Why a Total Laryngectomy?

You may be wondering why the doctor has opted for a total laryngectomy as opposed to some other form of treatment. Perhaps you know some people who have also had laryngeal cancer, but who have had different types of treatments. In fact, there are several methods of treatment. However, the doctor has prescribed the treatment that he or she considers most appropriate to your particular condition. You may rest assured that his or her decision is based on specific criteria: the nature, size, site, and extent of your tumour. The doctor will explain to you the reasons for the particular choice made in your case.

Meetings Before the Operation

Before the operation, you will meet several healthcare providers. For example, the surgeon, nurse and speech-language pathologist will each speak to you about treatments, care during hospitalization, and rehabilitation. Other professionals - medical specialists, a psychologist, social worker, physiotherapist may also meet with you, depending on your needs and the practices in force at the hospital where you will be treated. More often than not, and with your consent, a meeting is set up with another person who has undergone a laryngectomy so that you can talk about things before the operation. If you like this idea, be sure to tell your speech-language pathologist or your doctor. Talk about your concerns and ask questions. Above all, do not cut yourself off. Take advantage of the support available to help you cope with your anxieties.





Day Before the Operation

The day before surgery, depending on the case, the patient's neck is shaved, and the chest if necessary. Since the anaesthetic sometimes causes nausea, it is important to fast for a period of six to eight hours before the scheduled surgery time. You will also be told what regime to follow for any medications you take. The purpose is to prevent problems both during surgery and when you awaken. The nurse will give you all the necessary information about how to prepare for surgery and about the actual surgical procedure, and will answer all your questions about your hospital stay.

Feelings Experienced

A cancer diagnosis always comes as a big shock, for both the person affected and close family members or friends. People may experience feelings of insecurity, anger or disbelief. Some will even want a second opinion. Depending on your temperament, you may just want to be alone to come to grips with this challenge by yourself and to reflect quietly on your own. Nothing unusual about that.



Many spouses remain calm and encouraging. Others are filled with despair or panic and are unable to face the situation at hand. The fear of possibly seeing a loved one die or knowing that the person is seriously ill takes away all their strength. In addition, the fear of new responsibilities and anguish about the future are some of the other feelings that may upset them deeply. This is all perfectly normal. The family atmosphere inevitably has a shadow cast over it for a good while. But these moments of uncertainty and anxiety do pass, and the situation can only get better, as long as everyone tries to be patient and understanding.

To help you get through this difficult time in your life, talk about your feelings to those around you. Find out all you can about the details of the surgery and its consequences. These steps will go a long way toward helping calm your anxieties.

Furthermore, the use of relaxation techniques could prove to be very beneficial for you (see page 36). You will be able to get your bearings and regain some control over your life at a time when the ground beneath your feet feels very shaky.

The Operation

To understand exactly what a laryngectomy is, first you need a basic understanding of the anatomy and functions of the larynx.

Description of the Anatomy and Functions of the Larynx

The larynx is a tube located in the front part of the neck between the pharynx and the trachea (wind-pipe): the protruding part is often called the *Adam's apple*. The larynx is made of muscles and several cartilages that are held together by ligaments. It contains the two vocal cords, which specialists call *vocal folds*. The larynx has two main functions: producing sounds and protecting the airway (respiratory tract).

To produce sounds, the air exhaled by our lungs passes through the trachea, and, as it travels through the larynx, causes the vocal cords to vibrate, producing the sound of our voice. The vibrating air then passes through our mouth, where our lips and tongue articulate sounds to produce words.

The larynx also protects the airway. Air entering the body through the nose or mouth goes to the pharynx, which is the part of the throat located just behind the tongue. When we eat, food also passes through the pharynx. After that, air and food take two different paths: air passes through the larynx and then the trachea to reach the lungs, whereas food goes into the esophagus. It is the epiglottis, a sort of valve that moves up and down, that separates the air from the food. When we swallow, the epiglottis drops and closes the larynx, thus preventing food from entering the airway. The food can then continue on its way, first, through the esophagus and then into the stomach. Sometimes the epiglottis does not work perfectly and food enters the larynx and airway, causing us to cough to clear our breathing passage. When this happens, we say, "it went down the wrong way." Our vocal cords thus serve as a second protective barrier, after the epiglottis, for our airway.



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Laryngectomy

You have probably already heard about a laryngectomy. This is the type of surgery that has been chosen to put a stop to your cancer.

A so-called total laryngectomy involves the complete removal (ablation) of the larynx, i.e. the cartilages, muscles and ligaments, including the vocal cords. This surgery modifies the airway and causes you to lose your voice permanently.

The surgeon bends the trachea and reconnects it to a surgically created opening, or hole, in the front of the neck. This opening is called a *stoma*. From then on, air enters directly into the neck, where it goes to the trachea and the lungs, no longer passing through the pharynx. You will breathe through this permanent hole rather than through your nose or mouth, as they are no longer connected to the airway. When the larynx is removed, reconstructive surgery between the pharynx and esophagus is required in order to recreate the canal needed for eating. You will then be able to eat food through your mouth a few days after your surgery.

The removal of the larynx also means that you no longer have vocal cords and that you cannot make sounds in the same way as you did before. You will therefore have to learn to communicate in other ways. But rest assured: there are several methods of communication available and you will have the support and assistance you need to learn them. The speech-language pathologist, who is a communication specialist, will know how to support you and above all, to guide you as you make your choices. However, as you will be obliged to take time to convalesce before beginning your voice rehabilitation, you will have to take measures to dialogue with your family members and the hospital staff during the period right after surgery. It is important that you agree right away on a certain code for making yourself understood when you no longer have a voice, so be sure to have at least pens and paper handy for when you wake up. You will also be able to whisper so that your family members can read your lips.

Complementary Surgeries

Depending on the extent of the tumour, the surgery may not be limited to simply removing the larynx, but may also involve the surrounding tissues. Complementary surgeries vary from one person to the other. Your physician will tell you if any such surgery is required in your case.

There are several types of complementary surgeries, but the most common is neck dissection. This operation, which is performed at the same time as the laryngectomy, involves removing the lymph nodes in the neck and adjacent tissues, including some muscles if the cancer has spread into these areas. It will affect your neck, which will be a little smaller and less flexible than before, and possibly the adjacent shoulder, which may tire more easily and have a tendency to droop. You may feel some pain, have some difficulty moving your shoulder or experience discomfort. Your body will also probably react to the surgery by causing edema (swelling) in the neck region. This is a normal reaction. The edema will go away on its own with time.

Some physiotherapists offer a specific exercise program, so ask your physician about it. Page 37 of this Guide gives examples of some very simple exercises you can use to relieve your discomfort.

Radiation Therapy

In some cases, the doctor prescribes radiation therapy (also known as *radiotherapy*) sessions after surgery. This complementary treatment consists of beaming very powerful rays onto the surgical area to kill any cancer cells that may still be present after surgery. The staff at the radiation therapy department will explain each of the steps involved in your treatment and may give you some pamphlets that answer the most commonly asked questions. A number of organizations, listed on page 39, may also be able to provide you with useful information.

As radiation therapy also affects healthy cells, people very often feel secondary effects. The most frequently felt are fatigue, skin problems in the areas of the ray path or difficulties with deglutition (swallowing). The mouth can become dry or sensitive and the teeth and gums more fragile. The ability to taste is also altered. Do not overly worry about these unpleasant effects: most of them are temporary and will disappear after a few weeks. The doctor will tell you which signs to look out for and will suggest ways of alleviating them. To offset the dental problems that frequently occur, the doctor will refer you to a specialized dentist who will take you in hand.

Always talk about your problems with the people in charge of your care: they are specially trained to help reduce the secondary effects of your treatment.

Chemotherapy

Chemotherapy is another way of attacking cancer cells in order to destroy them. When laryngeal cancer is involved, this treatment is usually given in combination with radiation therapy as a substitute for surgery on certain types of tumours. Chemotherapy makes radiation therapy more effective. It has unpleasant side effects as we all know, but these go away with time. The hospital staff and people at the organizations listed on page 39 are valuable sources of information.

Chances of Being Cured

Cancers of the larynx usually respond very well to surgery and the different types of complementary treatments. The prognosis, as for many other cancers, depends on the size of the tumour, the site of the lesion, and of course, how far the disease has spread. Some tumours have a higher degree of malignancy than others. Treatments sometimes have to be combined to treat these cancers effectively. We all know that the sooner a cancer is detected, the better the chances of being cured. Generally speaking, cancers of the larynx have a very good prognosis.

Risks Involved in the Operation

There is always some risk of complications with surgery, and a laryngectomy, like neck dissection, is no exception to the rule. However, during the operation, the risks remain virtually negligible. The doctor is in a position to tell you exactly what risks are involved if this issue preoccupies you.

One of the problems sometimes encountered following surgery is the formation of a fistula. This is a small opening that forms at the site of the incision between the pharynx and the outside surface of the neck and that heals with difficulty. The normal scarring of the tissues is therefore slowed down, especially by the secretions that fill up this opening, sometimes for weeks on end. During this time, patients cannot eat through their mouth and must use a nasogastric feeding tube. The fistula may even require another operation. The doctor and nurse will tell you what precautions to take in this case and how to take care of the fistula, particularly how to clean the tissues and to be patient. People who have had radiation therapy treatments beforehand are more prone to this type of complication because their tissues have grown more fragile. However, surgeons are usually aware of this probability and of the means of reducing the risks.

Research Into Cancer Treatment

Research is always underway to find more and more effective ways of beating cancer. Throughout the world, experts in many disciplines are joining forces to reach this goal as soon as possible. New doorways are always opening up, whether they concern new treatments, disease prevention or recurrences. There is indeed hope.

After the Operation

Back to Your Room

Immediately after your laryngectomy, as soon as you leave the recovery room, you will be taken to intensive care or directly to your hospital room. It all depends on your general condition, and of course, the hospital's standard practices. You should plan on being in the hospital for around ten days, sometimes even a little longer.

When you wake up, you will notice that you have tubes and drains attached to your body. All these apparatuses may disconcert you, but rest assured, they are there to speed up your recovery.







Eating After the Operation

At the very beginning, you will be fed intravenously. In fact, you cannot swallow anything, either liquid or solid, by mouth for some time. This is to ensure proper scarring of the throat tissues and to give your digestive tract a rest since it is not yet ready to absorb food. Your stomach has also suffered the effects of the anaesthetic and needs a little time before resuming its normal functions. The principle of intravenous (IV) feeding is simple. A needle, which is connected to a bag by means of a long tube, is inserted into a vein, through which all the nutrients needed by the body enter slowly.

After a certain length of time, intravenous feeding is no longer necessary. You are then fed and given medications by means of a tube, called a nasogastric tube, inserted through your nose into your stomach. This procedure is known as gavage. The fact that you have progressed to feeding through a tube means that your stomach has resumed its normal functions, but that your pharynx is not entirely healed. While waiting for it to completely heal, you must avoid any irritation of or pressure on the pharynx. Therefore, you must not swallow anything, either liquid or solid: in fact, nothing other than your saliva.

Unfortunately, this tube may cause burning sensations in your stomach when you start eating again. These stop once the tube has been removed, usually ten or so days after the operation. Your food will be liquid and semi-liquid to begin with, then gradually you will be able to eat as you did before.



The Cannula

Immediately after the laryngectomy, the surgeon inserts a tube called a *cannula* into the stoma. This is a plastic tube that keeps your stoma open during scarring and facilitates the healing process. The cannula is held in place by a tie attached around your neck. It is essential that you remove it occasionally and thoroughly clean it once the nurse has shown you the proper procedure. There is nothing to be afraid of: the stoma cannot close up during the short time needed to clean and reinsert the cannula. You will find instructions on proper care in the next chapter.

Don't be surprised about having to leave the hospital with your cannula. Most laryngectomees remove their cannula after some time, but as everyone reacts differently to any given treatment and heals at his or her own pace, no one can predict how it will be for you. The doctor and nurse will tell you what to do before removing your cannula once and for all.

Some people need help for a longer period of time to keep their stoma open, sometimes even after complete scarring. Instead of using the usual cannula, they may then use a *stoma button*, also called a *tracheostomy button*. This device, made of silicon, serves the same purpose as the cannula, but is less visible and more comfortable. However, it cannot be used immediately after the operation because it must be perfectly adjusted and the stoma remains sensitive during the post-operative period. Moreover, to stay properly in position, this button requires the formation of a very firm edge, which only takes place after scarring is complete. Details on how to care for this device are given in the following chapter.

The stoma button does not have to be attached to stay in place. However, it can sometimes be projected out of your stoma when you cough. The stoma is at no risk of being damaged by this involuntary action, but the situation can certainly be embarrassing. To prevent this problem from occurring, here is a suggestion that is sure to make things easier for you. Using a sewing needle, pass a long thread through the edge of the button and tie it securely. Then attach the other end of the thread to your blouse, shirt or undergarment using a safety pin. This simple trick can help you avoid unfortunate incidents.

Suction Units

In the first few days following the operation, your lungs and trachea will secrete large amounts of mucus. This excess mucus signifies a natural body reaction: when air used to pass through your nose or mouth, it was warmed, moistened and cleaned of impurities before reaching the trachea. Now that air enters directly into the trachea, the trachea adapts to this irritation by producing more secretions. The amount of mucus produced will lessen with time. At the beginning, the nurse will help you remove the secretions using a suction unit. As time goes by, you will learn to expel them through your stoma by making yourself cough. For your own comfort and for reasons of hygiene, you must be diligent about removing all the secretions that accumulate in the stoma. Once the secretions have diminished, the suction unit is no longer essential.

Do not worry if your cough no longer sounds like it used to. Everyone knows that the sound of expelling secretions is different. It causes several muscles to contract and gives the impression that the entire body is involved. This phenomenon is perfectly normal, given the anatomical changes resulting from the surgery.

Breathing and an Oxygen Mask

After the operation, the nurse or respiratory therapist places an oxygen mask on your stoma to help moisten the air entering the trachea. Before, the air entering your lungs used to be moistened naturally. This is no longer the case. Once the initial impact of the surgery has worn off, your respiratory system will adapt to less moist air. After you return home, using a humidifier, mainly at night, will prevent secretions from drying up and forming crusts. If the air entering your lungs is moist enough, you will have no problem getting rid of secretions.

Nasal dryness or, contrarily, a constantly runny nose can obviously be annoying. There are some things you can do to relieve these problems. The doctor or nurse will advise you on the methods best suited to your needs.

Pain

After a laryngectomy, it is normal to feel pain and discomfort. Most people find, however, that the pain is not as bad as they had expected. If you are really in pain, be sure to tell your doctor or nurse. You will be prescribed a medication to alleviate the pain. And don't worry about having the stitches removed because at worst, you might feel a slight pinching sensation.

Other Consequences

You may have some problem swallowing after your operation. Fortunately, this is only a temporary inconvenience. Most patients usually regain the ability to swallow very quickly. You may also notice that your senses of taste and smell, which are closely related, are not as keen as before. The fact that no air is circulating in your nose reduces your sense of smell, but also has an impact on your sense of taste. Both senses will improve, but the most frequent complaint remains that of persistent problems with smelling.

In addition, some movements may be more difficult to make, such as lifting loads or climbing up into a saddle. Why is that? Because you no longer have vocal cords. It is your vocal cords that usually allow you to retain air in your lungs, and thus to exert yourself more effectively. If you find such situations difficult, talk about it with your rehabilitation team, who will help you overcome this inconvenience.

You will also note that it is no longer possible to laugh or cry as you used to, not because you have lost the ability to do so, but because the fact of having no voice prevents you from showing it. For example, your laughter is now produced by sudden expulsions of air through the stoma. In short, you will have to learn to "reinvent" yourself and to express your emotions differently. Learning can be hard, but you will undoubtedly manage to adapt to this new condition with time. Think of it as having to learn some new gymnastics.

Learning How to Communicate Again

The speech-language pathologist will pay you visit a few days after your operation. This person will no doubt suggest that you immediately start using an intra-oral artificial larynx to allow you to communicate. You will learn to use it quickly and will be able to use it to speak with your family members. As soon as you have totally recovered, the speech-language pathologist will make an appointment with you to plan your voice rehabilitation. The different options available are explained on page 32.



In the meantime, use all the means of communication made available to you, such as the call button beside your bed, to let your nurse know that you need help. Keep paper and pencil within reach, or a dry-erase board and magic markers. Use gestures or articulate words with your lips so that your family or friends can lip-read what you are trying to say. These means of communication are only temporary so that you can make yourself understand while waiting to move on to a more effective method. Initially, you will feel frustrated at the difficulty you have in communicating, but give yourself a little time to master these new skills. Your close family members (family, life partner, children) will undoubtedly feel moments of frustration as well. They too need time to adjust, but with time, everyone *will* adjust.



Feelings Experienced

Don't be surprised if all these events make you experience some very strong emotions. At this time, people frequently feel anxious or even depressed. Nor is it uncommon to be afraid and anxious about the future, while still other people become passive and resigned. These are only some of the different ways of coping with the stress created by this difficult situation. It is also important to remember that your entire family is going through a challenging period of new adjustments. All these adjustments do not simply happen overnight. They take time, and above all, a lot of patience and mutual understanding.



Post-Operative Care

During your hospital stay, the nursing staff will be responsible for gradually teaching you all the care procedures you will have to follow yourself on a regular basis when you go home.

Caring for Your Cannula

It is essential that you keep your cannula very clean. This is the only way to prevent the stoma from becoming irritated or mucus from accumulating. Too much mucus interferes with breathing, which then becomes more difficult.

To clean your cannula, you will need a brush, mild liquid detergent, 3% hydrogen peroxide, warm water and a clean jar or bottle. The nurse will tell you where to obtain the necessary material.

- Clean the inner cannula from three to five times a day, and more often if necessary. The outer cannula should be cleaned when you get up in the morning and again at bedtime.
- To prevent bacteria from forming, clean the brushes thoroughly with mild liquid detergent or hydrogen peroxide. After rinsing them thoroughly, dry them in the open air; do not store them in bags or closed containers.

It is best to use a mild detergent: ordinary dish detergent is not recommended. Ask the nursing staff or a pharmacist, who will be able to recommend an appropriate product. Hydrogen peroxide is sold in drugstores.

Here are the steps to follow to keep your cannula clean and free of harmful bacteria:

- 1. First, wash your hands.
- 2. Slowly remove the two parts of the cannula, then throw the soiled ties into the garbage.
- 3. Place the cannula in a bowl filled with soapy water.
- 4. Using a brush, thoroughly clean the inside and outside of both the outer and inner cannulas. Make sure that all the surfaces are very clean, and remove the mucus that might have formed dry crusts. If necessary, repeat the operation.





- 5. To dry the pieces, simply shake them vigorously. It is not recommended to dry them using a towel, Kleenex tissue or pieces of fabric. You might leave a little soapsuds in the tube: the residue risks being aspirated into the trachea once the cannula is put back in place.
- 6. Before putting them away, make sure you thoroughly clean the brushes with soapy water and do not leave any trace of mucus.

To make it easier to reinsert the cannula, specialists recommend using a water-soluble lubricant that you will find in drugstores. Use only a very small quantity of lubricant since any excess risks causing a cough. In a pinch, water will do to lubricate the cannula.

One-tie method



Two-tie method





Replacing the Ties

One or two ties attached around the neck hold the cannula in place. These ties get dirty and must be replaced regularly to prevent skin irritation or unpleasant odours. When you are being taught procedures post-operatively, the nursing staff will explain what you have to do. The pictures to the right show the steps to follow to replace the ties.

To make your own ties, you can use twill tape that is one centimetre wide (1/2 inch). This tape is available through the supraregional services offered (see page 42).

Learning to change the ties takes a little time. However, with practice, people acquire the necessary skill and manage to attach them without too much difficulty. Develop the habit of preparing several ties at once as this will save you time, and remember to change them each time you clean the outer cannula.

Removing Your Cannula

Generally speaking, the cannula is only worn temporarily, and the length of time varies from one person to another. The physician will tell you when you can start removing it. Usually this is done on a gradual basis. The doctor suggests that you remove it first for a short period of time. When putting it back in place, be attentive to what happens: if you feel resistance, it means that your stoma has slightly shrunk without the cannula in place. This is how you and your doctor will be able to tell whether or not you still need it. Gradually, you will see that you can manage without it, and for longer and longer periods of time. After a certain length of time has passed, you will stop wearing it during the daytime and will be able to put it back in place with no problem before going to bed. And before long, you will no longer need it at all, even at night. However, you must make sure that your stoma is thoroughly healed before you stop wearing the cannula at night. When you no longer need it, your stoma remains open permanently and allows you to breathe comfortably at all times.

Caring for Your Stoma Button

Some people wear a stoma button instead of a cannula. If you have to wear a cannula beyond the usual length of time, ask the doctor if wearing a stoma button might be appropriate for you. If so, you will be given a prescription specifying the exact size required for your stoma.

To care for your stoma button, follow the same procedure as for the cannula. Clean it regularly to remove mucus.

Oral Hygiene

After a laryngectomy, it is important to pay careful attention to your oral hygiene, especially if you have radiation treatments. Your mouth is likely to become dry and more vulnerable to injury. You must also take good care of your teeth. If you wear a dental prosthesis, it will probably need adjustments after your surgery. Your gums will also require a watchful eye. Good oral hygiene prevents bad breath. The doctor will recommend that you see a dentist who will ensure proper care and advise you on oral hygiene.

Brush your teeth regularly using a soft brush and mild cleaning products. You should not use a mouthwash containing alcohol, and must avoid irritating products such as cigarette smoke and alcohol. If your mouth remains dry despite taking these precautions, suck on ice cubes or hard candy, drink several glasses of water during the day or chew sugarless gum. And if this does not solve the problem, your doctor may suggest using artificial saliva for relief.

Humidity in Your Home

Before a laryngectomy, the air inhaled is filtered and moistened as it passes through the nose. However, after a laryngectomy, the air inhaled through the stoma no longer benefits from this protection. You are thus inhaling unfiltered air, which causes mucus to form. The mucus in turn dries out and forms crusts, and even dry plugs that can interfere with breathing. To avoid these complications, maintain a high level of humidity around you, both day and night. Relative humidity of between 35% and 50% is ideal. A quick way of offsetting dryness in the trachea is to stand above the humidifier for a few moments and inhale deeply. Some people turn on the shower for a few moments with the bathroom door closed, to benefit from the humidity in the ambient air.

Protecting Your Stoma

The stoma is located at the entrance to the trachea. It is extremely important to protect it. The most common way of protecting the entrance to the trachea is to wear a filter. Generally speaking, the filter is made of a lightweight, open-weave fabric similar to a compress, or of foam rubber.

The filter serves first to maintain a sufficient level of humidity in the trachea, especially during winter when the heating system dries out the ambient air. The filter also limits access to air pollutants and prevents foreign particles like water droplets, food or hair, from entering. Even if you wear a filter, you must constantly pay attention to the ambient air conditions, such as prolonged or frequent exposure to smoke, dust, or overly dry or cold air.

Most people prefer to hide their filter by wearing a tie, scarf, turtleneck, or ascot. Some manufacturers offer a variety of filters made of attractive fabrics. Avoid filters that are poorly made or too small, and fabrics that are too soft or have too tight a weave, as they make breathing more difficult. In winter, foam rubber filters, which are thicker, are popular as they help to moisten and warm up the air entering the trachea.

If at first you have the impression that wearing a filter hinders your breathing, start by using an openweave filter. As time goes by, you will feel more at ease and be able to wear thicker filters. For maximum benefit, the filter must be worn at all times, both day and night.

Fear of Suffocating

Everyone who has recently had a laryngectomy worries about their breathing at night. They are especially afraid of suffocating in their sleep because they fear that their bedcovers might cover up their stoma. Rest assured in this regard: if your covers happened to get in the way and hinder your breathing, you would instinctively move them away just as you would have before surgery, without even waking up. Wearing a filter at night will help you maintain a comfortable level of humidity in your trachea, and thus to avoid the formation of mucus crusts that restrict the passage of air. It also prevents any fluff off your bedcovers from entering.



Breathing and Secretions

It is important to remove the secretions that accumulate in your trachea and around your stoma on a regular basis. You can no longer cough like you used to before surgery, but you can clear your trachea by expelling air quickly and forcefully. To do so, start by placing a tissue over your stoma. Then lean forward to lower your stoma and expel air forcefully as if you were coughing. Dry your stoma thoroughly. Repeat the process if necessary.

If you have a cold, you will probably notice an increase in the quantity of mucus produced by your trachea. As before your surgery, though unpleasant, this situation is perfectly normal. In order to make the secretions easier to dislodge during this time, pay particular attention to the humidity in your house and be sure to drink lots of fluids. These precautions will help prevent the formation of mucus crusts. Medical personnel may recommend that you use a saline solution to moisten your trachea. Be patient, as your cold will pass just like it did before.

Cleaning Your Stoma

Your stoma and the area around it must be kept clean and free of irritants at all times. You must prevent secretions, both dry and wet, from staying there too long and irritating your skin.

First, wash your hands to eliminate possible sources of infection. Moisten a washcloth with lukewarm water, squeeze it out thoroughly, place it over your stoma, and wipe gently. Lastly, apply a thin layer of water-soluble lubricant around the stoma to prevent crusts from forming. It is best not to use soap because it can irritate the stoma and bring on a coughing fit. Cotton balls should also be avoided since they can easily be aspirated into the trachea.



Sit on a straight-backed chair. Place one hand on your abdomen.

Three Steps to Clear Your Trachea



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Going Home

An Emotional Time

It's time to leave the hospital at last and return home. Of course, you are looking forward to this, but the prospect may also frighten you and raise concerns about the new life ahead. There is nothing surprising about all these feelings because you are going through a period where you and those close to you have to make many adjustments. You may even experience feelings of frustration. Give yourself the time you need to adjust to these changes in your life.



Risks of Depression

After major surgery such as a laryngectomy, it is perfectly normal to go through a period where you feel depressed. You are having to face a new image of yourself, a new and sometimes frustrating way of communicating, and lastly, limitations in performing your daily tasks, particularly at the beginning. You may even have the distinct feeling that you have lost control over your life. In fact, what you are going through is a mourning process. You need a little time to regain your strength and gradually take things in hand. Trust yourself.

Everyone reacts differently to the situation, depending on his or her personality and the circumstances. You will have the impression of riding the ups and downs of a wave, with good days and bad days. These highs and lows are part of the normal recovery process. Little by little, the storm will pass. Again, give yourself time to go through these emotions, regardless of how strong a morale you have at the outset.

Resuming your activities will help you avoid depression: visit relatives or friends, go on outings, use your time to do some volunteer work or take part in activities organized by mutual-aid associations (see page 39). However, if you continue to feel discouraged, talk about it with your doctor. He or she will recommend a specialist who can help you find your balance and enjoy life again. It is perfectly normal to need a helping hand when going through a difficult time.

Returning to Work

If you have a job, you are most probably worried about your return to work. As everyone's situation is unique, there is no one answer. The type of job involved, the working conditions, the amount of time remaining before you retire, and your health are all factors that have an impact on your chances of going back to your former job. For example, if your work requires lifting heavy loads or exposes you to extreme temperatures, gases, smoke, fumes or dust, you will have to plan for some adjustments, use adapted filters, learn new ways of working or possibly even change duties. Some professionals, such as occupational therapists, can advise you on ways to adapt your work environment. Discuss the possibilities of returning to work with your doctor. If you decide to continue doing the same activities as before, you will have to take essential precautions inasmuch as possible.

Some people prefer to meet with their employers before their surgery to discuss what is going on and obtain the employer's opinion of their chances of returning to their job after surgery. If you have this opportunity, you will find that such a meeting will prevent surprises and give you a chance to plan your financial situation and for any help you might require, such as employment insurance or benefits



provided under your personal insurance plan. When a return to their previous occupational activities is unlikely, some people may consider a career shift or even early retirement. A social worker will be able to assist you during this time, and an accountant can shed light on your situation and advise you in your decision-making process.

Some people who have been unable to return to work after a laryngectomy have seized the opportunity to do projects or become involved in activities for which they never had time before. Now that's an interesting idea! Take the time to give it some thought. Set yourself realistic goals that will help you regain confidence in yourself and in life. Your life is not over; you're just taking a different path.

Social Life

Are you worried about eventually returning to your circle of friends or your social milieu? Are you afraid of how they will react to your laryngectomy? Very few people are familiar with what a laryngectomy means, and most of them simply do not know how to react. This is one of the reasons for the ambivalence you may sense in your close family members. Seek them out, explain to them what is happening, and share your feelings. Above all, do not cut yourself off. To help demystify the idea of a laryngectomy in their minds, offer to let them read this guide. You may find it difficult to take the first steps, but just be patient and you will soon see the benefits. Once your family members are better informed, they will undoubtedly feel more at ease with you, as you will with them. You will thus avoid the vicious circle of isolation.

Receiving support from your close family members and friends is very important. Take advantage of any opportunities that come your way to go out. Your friends and family are people to whom you can talk freely about your fears and anxieties. Tell them what you hope for and how they can help you because, particularly at the beginning, they will not be able to guess what is on your mind. Remember to give them some time as well to adjust to your new method of communication.

Continue playing your favourite sports and exercising just as you did before, be it camping, hiking, badminton, golf, gardening, or some other activity. Certain physically demanding sports will be harder to do because your strength and endurance will have diminished. Unfortunately, water sports such as swimming are out of the question as there is a real risk of drowning because of your stoma.

Activities requiring pulmonary or vocal performance – such as singing, acting or playing a wind instrument – are, of course, greatly compromised. If you are a do-it-yourselfer, you will have to protect yourself against anything that could affect your airway, such as harmful fumes, dust, varnish vapours or sand particles. By taking precautions, you will avoid problems and be able to resume most of your activities.

Eating

Once you have been discharged from the hospital and returned home, you will probably start eating your usual foods quite quickly. When you are eating, however, you may experience a few difficulties you did not anticipate. People who have recently had a laryngectomy often complain about discomfort or how slow it is to swallow, especially when food remains caught in their throat. This situation poses no risk, but is unpleasant. To reduce the discomfort, take your time when eating and be sure to chew your food well. If a piece of food gets caught in your throat, swallow several times. If you alternate each mouthful with a little sip of water during the meal, you will have fewer food-blocking episodes. Remember that there is no danger of suffocating because, since your operation, the channel that food takes is different from the one you breathe through.

Some people leave the hospital with a nasogastric feeding tube and must eat specially prepared food by means of gavage. Before being discharged from the hospital, laryngectomees are given all the necessary information by a nurse and nutritionist, including the choice and quantity of foods required to ensure proper nutrition and meet their energy needs. If this applies to you, be sure to follow all instructions carefully until the doctor tells you to go ahead and start eating through your mouth.

One of the most irritating handicaps for laryngectomees is not being able to talk during meals. The esophagus, as we will explain in more detail further on, now serves as a passage for food but also for speech. During meals, as the esophagus is busy handling food, conversation becomes difficult. This experience will be frustrating at first, but you will adjust: many people take breaks during the meal in order to participate in the conversation. Tell your friends about this situation, and they too will adjust.

Always have tissues within reach. If you happen to cough during a meal, immediately place a tissue over your stoma and leave the table. Take the time to thoroughly clean your stoma and rejoin your friends once the episode has passed.



Relationship with Your Partner

Laryngectomees often worry about the possible impacts of their operation on their relationship with their partner. Some people feel that they lose their charm and are afraid their partner will find them less attractive because of the physical changes they have undergone. Remember that what keeps you and your partner together goes far beyond physical appearances, but you will both need time to adjust. Give your partner time to get used to the new situation too.

The presence of a stoma may bother your partner, and even be somewhat frightening. The noise of your breathing may also make your partner uncomfortable. If your tracheal breath brushes against his or her face, it is normal that they feel uncomfortable. Worse still is if your stoma gives off unpleasant odours. Your partner will move away from you. To avoid these embarrassing situations, take the necessary precautions. Clean your stoma and your cannula, if you wear one, fastidiously and frequently. Wear a clean filter and change it often. A well-groomed appearance works best.

The dynamics of a relationship are unique in themselves. Each couple therefore adjusts to the laryngectomy in its own way. One thing is certain, however: both partners are affected and each has a process to go through in order to accept that their life has changed. The couple must mourn what was and is no longer. It is also true that some people will have greater difficulty than others. If this is your case, take an objective look at what your relationship was like before the laryngectomy and how you used to handle difficult situations. Generally speaking, together couples continue to be so.



Studies confirm that very often laryngectomies are accompanied by stress. Do not let your worries and frustrations ruin your life: both of you are probably tenser, more aggressive or more tired than before, and thus less receptive to what the other one is experiencing. Obviously it will be difficult for partners to communicate during this period, especially since the laryngectomee is not yet adept at communicating in other ways. You will probably both be impatient with how long it takes to talk and how much time voice rehabilitation requires.

Even if communication is difficult, it is worth being tolerant and making an effort. By sharing your feelings and problems openly, you will not only increase your chances of smoothing out the difficulties, but also reduce your stress levels and enhance your recovery. You will need time and practice, especially if patience and dialogue are not already part of the dynamics of your relationship. You may have to accept changes in some of the habits within your relationship. The healthy partner frequently has to assume new responsibilities for which he or she was unprepared. This in turn can cause added stress and the feeling that everything is weighing heavily on his or her shoulders. However, the stress and these feelings of turmoil will gradually decrease with time.

Just as you have done when coping with other events in your life, take the time to discuss your fears and feelings with your partner. You will see: this open sharing will give you a unique opportunity for growing closer and strengthening your relationship. If the problems persist, you can always seek out professionals who are specially trained to help people get through these crisis periods.



Family

As with your partner, communication with the other members of your family requires adjustment, patience and tolerance on everyone's part. Family members must realize that for you, talking takes time but that it is neither exhausting nor painful. They may have difficulty understanding what you are trying to say, especially when you start your rehabilitation and have not yet mastered your new voice. Put them at ease by telling them to ask you to repeat things when they do not understand. Close relatives also need time to adjust and some will be more anxious than others.

Do not be overly worried if your family members are somewhat perturbed for a while. Adopt a positive attitude that will help you gradually find your balance. Your reaction to others affects your relationships with them. Think about it because the ball is often in your court.







Laryngectomees who live alone or who have to spend the daytime with no family members around sometimes feel insecure and tormented by the fear that they will be unable to ask for help if they need it. It is important to know that there are safety devices on the market specifically to enable people to ask for help in the event of an emergency. Mutualaid associations can give you contact information on distributors in your region (see page 39). The families of laryngectomees very often adopt a code to signal an emergency, such as giving three quick knocks on the phone receiver. For most laryngectomees, however, using an artificial larynx remains the most useful way of communicating initially (see page 33). The speech-language pathologist can explain what you need to know about this method of communication and give you tips that will make it easier for you to use the phone.

Sources of Support

Regardless of your family dynamics, it is in your own interest to take advantage of the support offered. Support groups provide opportunities for talking with others about your concerns and for overcoming the feelings of solitude caused by your disease. You will obtain some good tips on how to reduce stress. It is a good idea to join one of these groups as soon as possible. You will meet people who will understand you better than most others because they too are going, or have gone, through a similar situation. Moreover, these groups welcome your family members, who will also benefit from the experience of others. The list of resources available, which is given on page 39, is an invaluable aid to your recovery process. Do not hesitate to turn to these resources: they are there for you!

Medical Follow-Up

After leaving the hospital, it is important to see your doctor regularly. These appointments are essential to check your post-operative progress and keep an eye on your health. With you, the surgeon will determine how often you should have check-ups and the signs to look out for. It is important that you talk to your doctor about your concerns or any unusual symptoms, however insignificant they may seem.

Methods of Communication

Learning to communicate again becomes the main concern for someone who has just had a laryngectomy and for close family members. The method of communication chosen will depend on the type of surgery performed, as well as the laryngectomee's health and personal preferences.



Laryngeal Voice

Three basic elements are required to speak: air, a vibrating muscle, i.e. the vocal cords, and the articulators, i.e. the lips, tongue, palate and teeth. Before your operation, you had what is known as "laryngeal voice" because it was produced by the vibration of your vocal cords in your larynx. The air supply used to make the vocal cords produce sounds and the articulators transformed these sounds into words.

Alaryngeal Voice

After a laryngectomy, a person has no vocal cords and can no longer produce sounds as before. Fortunately, there is another way of speaking that involves making sounds by other means: this is known as "alaryngeal voice." As the name suggests, it refers to a voice produced without a larynx.

There are three types of alaryngeal voice: the artificial larynx (electrolarynx), esophageal voice and tracheo-esophageal voice. None of them enables you to produce a "normal" voice, but they all allow you to communicate. Initially, you and those close to you will need some time to adjust to and accept this change. And then one day, you will no longer give it any thought because your new voice will have become part of your life.

Voice Rehabilitation

Learning a new way of communicating requires effort and determination. Your impatience to acquire this new method of communication will make you want to excel right from the start. However, the normal rate of learning will strike you as slow compared with your expectations, and may occasionally leave you feeling frustrated. Always bear in mind that acquiring a new habit or skill necessarily takes time. Very few laryngectomized patients escape this reality. Remember what happened when you started learning how to drive a car: nothing was easy at first.

You may find that you are able to communicate effectively with the speech-language pathologist, but that as soon as you leave the calm atmosphere of his or her office, it becomes more difficult to communicate well. The world beyond is full of noise and people are not necessarily either attentive to or aware of the difficulties you may be experiencing. With time, you will learn to overcome these hurdles, and as you become more adept at speaking, they will gradually disappear. Talk about them with the speech-language pathologist and the laryngectomees whom you see. Together, you will find solutions.



Artificial Larynx

You will probably obtain an artificial larynx (electrolarynx) shortly after your surgery: it will be your first method of communication. This device generates the sound needed to produce a substitute voice. There are two types. The first type, called an *intraoral* (or simply oral) *artificial larynx*, includes a small tube that is inserted into the mouth. The device produces the sound and the person's mouth forms the words. The second type of artificial larynx, called a *neck-type artificial larynx*, operates on a similar principle except that the sounds are sent to the mouth through the neck.

The intra-oral larynx is used in the days immediately following surgery, whereas the neck-type artificial larynx requires the neck to have healed sufficiently so that edema and scar tissues do not impede sound transmission. There are several advantages to the artificial larynx. The device is easy to use and requires only a short learning time. It is reliable and requires very little maintenance. The volume of the sound it produces is such that it can be used in noisier environments, and the pitch of the sound can also be adjusted to suit your preferences. When an artificial larynx is used properly, it is easy for the listener to understand the words pronounced. The negative comment most often made by users concerns the artificial nature of the sound, its "robot-like" quality, which is somewhat strange for those who are unaccustomed to it.

Esophageal Voice

Unlike the artificial larynx, esophageal voice has a more natural sound. The sounds emitted are different from laryngeal sounds, but do not have the mechanical quality of the sounds made by an artificial larynx. As the name suggests, this voice is produced by the esophagus.

To acquire esophageal voice, the laryngectomized patient must learn to store air in the esophagus and expel it by vibrating the muscles in the upper portion of the esophagus. The sound is then modulated by the mouth to articulate words.

This technique requires daily practice and generally from three to six months to master. Tedious at the beginning, it eventually becomes automatic with practice. The sound produced is lower and not as strong as a laryngeal voice. Women laryngectomees therefore find a greater difference between their old and new voices than men. Since the esophagus is a much smaller air reservoir than the lungs, it is difficult to utter long sentences using this technique, which requires you to replenish your air reserves more frequently in order to produce sounds. Some people may feel discomfort during voice rehabilitation as a result of bloating, but this problem lessens as you become more skilful.

Learning to speak with this type of voice requires determination and motivation. Some people are quick to develop an excellent-quality esophageal voice that is understandable in most situations. However, not everyone is able to master the technique this easily. The speech-language pathologist will guide you and help determine whether this type of rehabilitation is appropriate for you.

Tracheo-Esophageal Prosthesis

This method of communication obliges the doctor to make a small opening called a *tracheo-esophageal fistula* between the trachea and the esophagus at the level of the stoma. This fistula may be created during the laryngectomy or in a second operation a few months, or even years, after the laryngectomy. A silicon tube is later inserted into this fistula to keep it permanently open. The tube is made in such a way that it allows air to pass from the lungs into the esophagus, but prevents food in the esophagus from infiltrating the lungs. After taking a deep breath in, the laryngectomee covers his or her stoma with a finger or a valve, allowing the air to go directly from the lungs to the esophagus. Once the air has reached the esophagus, it moves back up.



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As with esophageal voice, the air makes the muscles in the upper portion of the esophagus vibrate, producing a sound that is then modulated by the mouth. The voice obtained closely resembles esophageal voice.

One of the advantages of tracheo-esophageal voice is that you have direct access to the air in your lungs. Since the air supply is as big as it was before surgery, it is possible to produce sentences the same length as before the operation. The voice produced is also stronger and usually not as low as an esophageal voice. It can be produced shortly after surgery and is very quick to learn.

The only inconvenience is, as with all prostheses, that it requires meticulous care. The prostheses and valves must be cleaned and replaced on a regular basis. The speech-language therapist will train you to insert and care for your prosthesis. In cooperation with the doctor, the therapist will be able to plan the teaching of this method of communication, should this prove to be the best option for you.

Choosing a Method of Communication

It may seem daunting to have to choose from among these three methods of communication. Obviously, they all have advantages and disadvantages and are equally valid. The speech-language pathologist will discuss the pros and cons of each with you depending on your needs: Do you talk a lot or a little? Do you have many social activities? Do you work in a noisy environment? Do you have the habit of talking loudly?

Combining Methods of Communication

If you opt for a tracheo-esophageal prosthesis or esophageal voice as a method of communication, you could still keep the artificial larynx that you were given during the learning stage. You will then be able to use the method you already master to speak with your family members until you become more skilled with another method of communication. You can thus avoid many frustrations. Once most laryngectomees have successfully completed their voice rehabilitation, they tend to leave their artificial larynges behind for good.

Relaxing and Exercising

Relaxing

Relaxing can help you to let go, control your stress, reduce your anxiety, regain energy and sleep well.

It is possible to relax by doing an activity we like. Looking for pleasant distractions can actually be a good way of not thinking about your worries. Anything that holds your attention can provide a means of escape, such as taking a bath, reading a good book, listening to music or a radio program, going out, or playing a parlour game. Most people relax in this way.

Others prefer to use relaxation techniques that often emphasize breathing. (Obviously these exercises are not suitable for people with respiratory problems.) Choose a calm, comfortable place. Sit or lie down. Avoid crossing your arms or legs so as not to impede your blood circulation. Get into the mood and start your session by focusing on an object, then closing your eyes or visualizing a peaceful scene. Concentrate on your breathing for a few minutes.

Reducing Tension

Breathe in deeply and slowly, contracting one muscle or muscle group. Then release the tension as you exhale and relax. Repeat this several times with other muscles or muscle groups.

Rhythm Technique

Breathe in deeply and slowly, while counting in your head as follows: "Breathe in, one, two, breathe out, three, four." When you exhale, concentrate on thoroughly relaxing your whole body. This exercise can be done for a few seconds or even a few minutes. Before finishing the exercise, count slowly from one to three. You can play some soft music in the background to make your breathing exercise more pleasant.

Visualization

This exercise involves using all your senses. Keep your eyes closed and let yourself go. Concentrate on how your abdomen moves when you are breathing. Now imagine that a ball of energy is slowly forming in your body. Each time you inhale, imagine that the air in your lungs is pushing this ball all over your body. When you exhale, imagine that the ball is moving away from you and taking all your tension with it! Try to breathe naturally and not to puff when exhaling.

Physiotherapy Exercises

By doing physiotherapy exercises, you can regain your strength and energy, and lessen the impact of the surgery on your movements. This section presents a few basic exercises that you will find useful. If you consult a specialized physiotherapist, this person may also recommend that you do specific exercises adapted to your needs and capacities. Certain motions help control edema and promote the healing of scars.

Before you begin, read the conditions below carefully as they must be followed to obtain good results:

- 1. Sit on a straight-backed chair opposite a mirror, keeping your feet flat on the floor.
- 2. Force yourself to maintain good posture from beginning to end.
- 3. Make the required movement slowly while breathing in deeply.
- 4. Repeat these exercises every day.
- 5. Avoid doing exercises on days when you feel too tired or are in pain.



Breathing exercise

When you inhale, let your abdomen swell at the same time as your rib cage expands and rises. When you exhale, pull your abdomen in as your rib cage sinks. This exercise helps you breathe more deeply.

Neck exercise

During this exercise, it is important to keep your shoulders at the same height. You can make three different movements:

- 1. Tilt your head forward.
- 2. Tilt your head to one side and then the other.
- 3. Turn your head to the left and then to the right.

Shoulder exercise

To do this exercise, you will need a stick that is the width of your shoulders. Hold it by the ends with your arms stretched out in front of you. Several different movements are possible:

- 1. Lift your shoulders up and backwards, as if trying to push your two shoulder blades together.
- 2. Stretch out your arms and lift the stick as high as possible.
- 3. Lift the stick up to shoulder height, slightly bend your elbows and push both hands toward each other as if you wanted to break the stick.
- 4. Stretch your less mobile arm out as far as you can.

Precautions

People who have had a tracheotomy must take certain precautions regarding their personal hygiene and first aid. By doing so, they can avoid unpleasant experiences, and in the case of first aid, it may mean saving their lives. It is important to talk about these precautions with your family members.

Bathing and Showering

The main precaution to take when showering is that of preventing water from entering your stoma. You must avoid standing in a position where the stream of water falls directly onto your stoma. Some people cover their stoma with a washcloth or simply with their hand. However, there are shower protectors on the market that will help you prevent water droplets from entering the hole. You should also put an antislip mat in your bathtub, and for even greater safety, install a grab bar to prevent falls.

When you take a bath, you must be sure to keep your stoma out of the water. A towel wrapped around your neck will absorb drops of perspiration or water. If a little bit of water were to get inside your stoma by mistake, do not be too worried. A coughing spell will expel the irritating agent. You should also avoid highly perfumed soaps as they can irritate the area around the stoma, particularly skin that has been radiated.



Washing and Cutting Your Hair

Most people wash their hair in the shower. If you are one of these people, wear a shower protector to prevent the shampoo from entering your trachea or irritating your stoma. If you prefer washing your hair under the tap, lean forward to do so while covering your stoma with a towel.

When you go to the hairdresser's or barber's, ask the person to cover you with a towel or piece of fabric instead of a plastic clothing protector, so that you can breathe easily. Make sure that all hair is meticulously removed before taking off the fabric covering your stoma. Above all, you must remember to wear a filter on these occasions.

Shaving

Some men prefer to use an electric razor, while others feel more comfortable shaving with an ordinary razor. First, be sure to wrap a towel around your neck to prevent any shaving cream or whiskers from entering your stoma. If you use an ordinary razor, start shaving your neck region first, making sure the shaving cream does not enter your stoma.

Receiving First Aid

Anyone can find themselves in an emergency situation. If you need to receive first aid, especially respiratory assistance, it is essential that your rescuers know that you breathe through a stoma. Register with the MedicAlert program and wear a MedicAlert bracelet to draw attention to your condition.

You may also wish to keep a first-aid card in your wallet or purse, giving instructions to be followed in the event of an emergency. You should also talk about these precautions with your family members:

- 1. An oxygen mask must be placed on the stoma, not on the mouth.
- 2. Do not cover a laryngectomized person above shoulder level.
- 3. Do not splash water in the face of a laryngectomee.
- 4. Keep the person's head very level, with the chin pointed upward so as not to block the stoma.

The Fédération québécoise des laryngectomisés can provide you with the material needed for situations requiring emergency measures or first aid.

Resource Directory

Below is a list of useful addresses for laryngectomized persons and close family members. It includes various resources that can meet your needs, including sources of information, support groups, documentation, activities, as well as supplies and equipment. Do not hesitate to use these services: they are there to help you.

Canadian Cancer Society

The Canadian Cancer Society offers a vast range of support and information services for people living with cancer and those close to them. More specifically, it offers:

- information on cancer, prevention, and current research;
- support services (support groups and volunteers) and accommodation services; and
- material assistance (filters to protect stoma, batteries for certain types of artificial larynges) and financial assistance (subject to certain criteria).

To obtain information or find out the location of the regional office nearest you, contact the:

Canadian Cancer Society

5151 Assomption Blvd. Montréal, Québec H1T 4A9

Telephone: (514) 255-5151

Fax: (514) 255-2808

http://www.cancer.ca

E-mail: info@sic.cancer.ca (questions about cancer) or

webmestre@quebec.cancer.ca (information about the Canadian Cancer Society)

The Fondation québécoise du cancer

The Fondation québécoise du cancer offers support and information services to people living with cancer and those close to them. Among the services offered are the following:

Information

The *Ligne Info-Cancer* allows you to obtain information on all aspects of cancer from healthcare providers, free of charge and in total confidentiality, by calling 1 800 363-0063, from 9:00 a.m. to 5:00 p.m., Monday through Friday.

Support

The *Ligne Télé-Cancer* at 1 800 363-0063 encourages "buddying" between people living with cancer and volunteers who have the same type of cancer.

Documentation

Documents can be consulted on site, loaned or borrowed by mail.

Accommodation

Low-cost accommodation for people coming from remote regions for the entire duration of their treatments.

Montréal region

2075 Champlain Street Montréal, Québec H2L 2T1

Telephone: (514) 527-2194 or toll-free: 1 877 336-4443 Fax: (514) 527-1943 http://www.fqc.qc.ca E-mail: cancerquebec.mtl@fqc.qc.ca

Québec City region

190 Dorchester Street South Suite 50 Québec, Québec G1K 5Y9

Telephone: (418) 657-5334 or toll-free: 1 800 363-0063 Fax: (418) 657-5921 http://www.fqc.qc.ca cancerquebec.que@fqc.qc.ca

Estrie region

3001 12th Avenue North Fleurimont, Québec J1H 5N4

Telephone: (819) 822-2125 Fax: (819) 822-1392 http://www.fqc.qc.ca E-mail: cancerquebec.she@fqc.qc.ca

Outaouais region

576 De l'Hôpital Blvd., Suite 3 Gatineau, Québec J8V 2S9

Telephone: (819) 561-2262 Fax: (819) 561-1727 http://www.fqc.qc.ca cancerquebec.gat@fqc.qc.ca

Fédération québécoise des laryngectomisés

The Fédération québécoise des laryngectomisés is an umbrella group for three associations whose offices are located in Montréal, Québec City and the Mauricie-Bois-Francs regions. It offers the following services:

- support groups
- monthly lectures
- information and documentation
- mutual-aid fair in Montréal (for one-on-one or group discussions)
- sells various products: shower protectors, woven neckpieces, stoma covers.

Fédération québécoise des laryngectomisés Association des laryngectomisés de Montréal (serves western Québec)

5565 Sherbrooke Street East Montréal, Québec HIN 1A2

Telephone: (514) 259-5113 Fax: (514) 259-8946 http://www.fqlar.qc.ca E-mail: alm@fqlar.qc.ca

Association des laryngectomisés de la Mauricie/Bois-Francs (serves central Québec)

2045 Ferdinand Street Drummondville, Québec J2B 7M2

Telephone: (819) 478-5210 http://www.fqlar.qc.ca E-mail: almbf@fqlar.qc.ca

Association des laryngectomisés de Québec (serves eastern Québec)

4765 1st Avenue, Suite 240 Charlesbourg, Québec G1H 2T3

Telephone: (418) 622-5704 http://www.fqlar.qc.ca E-mail: alq@fqlar.qc.ca

Supraregional Services for Laryngectomees

These centres, designated by the Ministère de la Santé et des Services sociaux (MSSS), offer:

Equipment loans:

Artificial larynges, suction units, communication devices.

Material supplies:

Tracheo-esophageal prostheses and valves, stoma care accessories.

Voice rehabilitation:

(if this service is not offered in your hospital)

Centre hospitalier de l'Université de Montréal (CHUM), Hôpital Notre-Dame

Service aux laryngectomisés Mailloux Pavilion, 3rd floor, Door K-3246 1560 Sherbrooke Street East Montréal, Québec H2L 4M1

Telephone: (514) 890-8000, extension 25585 Fax: (514) 412-7899 For laryngectomees living in WESTERN Québec

Centre hospitalier universitaire de Québec, Hôtel-Dieu Pavilion

Service d'orthophonie 11 Côte du Palais, No. 1565 Québec, Québec G1R 3V7

Telephone: (418) 691-5095 Fax: (418) 691-5377 For laryngectomees living in EASTERN Québec

Other Resources

In Québec, the healthcare system is organized so as to allow for the development of local and regional resources that you can turn to in case of need:

- Healthcare establishments offer their medical services free of charge, including diagnostic examinations, surgery and voice rehabilitation. Some fees may be charged, for example, if you request a private or semi-private room.
- The prescription drug insurance plan covers prescriptions for drugs you may have to take after your surgery. Certain food substitute products prescribed by your doctor may also be covered in some cases.
- Most healthcare establishments have access, through the CLSCs or regional boards, to social workers who assist people to identify their needs and finance their transportation and accommodation costs during treatments or rehabilitation. They also offer psychological support as needed.

Tribute to Huguette Thibault



The Centre hospitalier de l'Université de Montréal wishes to salute the career of Ms. Huguette Thibault, a nurse specialized in caring for laryngectomized and tracheotomized patients. Ms. Thibault has dedicated all her knowledge, skills and expertise to serving individuals who have been seriously afflicted by disease, and in doing so, has raised the bar for nursing care standards to new heights.

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