

# UNDERSTANDING LARYNGEAL CANCER



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## WHAT IS THE LARYNX?

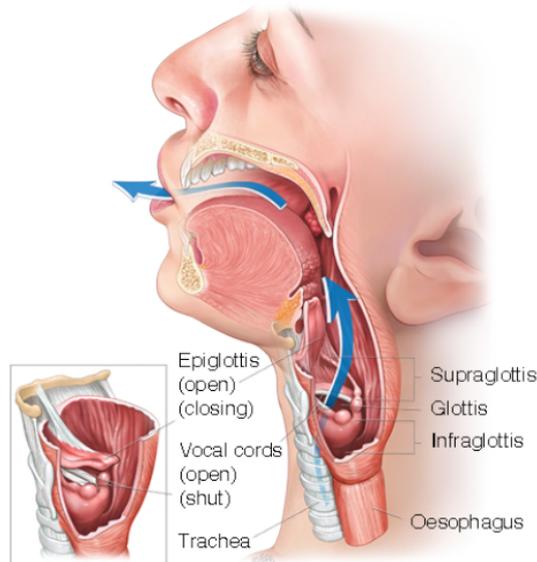
The **larynx (or voice box)** is an organ in the front of the neck. The larynx is made up of cartilage (a firm tissue), muscles and ligaments which move to make different sounds and protect your lungs when swallowing.

The cartilage in front of the larynx is what is sometimes called the Adam's apple. The larynx has 3 parts which doctors may refer to when describing where a cancer is located within the larynx (see below):

- **upper (supraglottis):** the area from the epiglottis down to the vocal cords at the top of the larynx. The epiglottis is responsible for protecting the lungs when swallowing foods and liquids.
- **middle (glottis):** this area contains the vocal cords which open when breathing, and close when talking and swallowing.
- **lower (subglottis):** the area below the vocals cords where the larynx joins the trachea (or windpipe). The trachea links the larynx to the lungs.

Behind and around the larynx is a horseshoe shaped area called the **hypopharynx**. The hypopharynx directs food into the oesophagus (or food pipe). The larynx, hypopharynx and oesophagus all work together to make sure food is directed to the stomach when you swallow. If they are not working together properly, food can enter the lungs, causing a chest infection, and known as aspiration.

## Introducing larynx and the surrounding areas



## WHAT DOES THE LARYNX DO?

The larynx does three important things, it:

- allows air to pass into the lungs when you breathe
- makes the sound of your voice so you can talk and sing by vibrating the vocal cords
- has a flap (epiglottis) which works together with the vocal cords to close the larynx when swallowing to prevent food and drink from going down the wrong path and entering the lungs.

The larynx, hypopharynx and oesophagus all work together to make sure food and liquids are directed to the stomach when you swallow. The epiglottis and the vocal cords close tightly when you swallow, blocking food entering the windpipe. The laryngeal muscles and nerves control the vocal cords and the swallowing action and may be damaged by cancers of the larynx and hypopharynx.

## WHAT IS LARYNGEAL CANCER?

Cancer occurs when cells become abnormal, grow uncontrollably and have the potential to spread to other parts of the body. These cells build up to form a mass (or lump).

There are many types of tumours (lumps) that occur in the larynx. Many of these are not cancers but are what doctors call 'growths' or 'lesions'. Common examples include vocal cord nodules or papillomas.

## WHAT CAUSES LARYNGEAL CANCER?

Doctors often can't explain why a person gets cancer. But we do know what makes some cancers more likely.

**The main causes are:**

- **Smoking (cigarettes, cigars or pipes) or using smokeless tobacco (snuff and chewing tobacco):** If a person is a smoker, they have a higher risk of getting laryngeal cancer than someone who does not smoke.
- **Drinking a lot of alcohol over a prolonged period:** increases the risk of laryngeal cancer. In Australia, current guidelines for healthy men and women are no more than 2 standard drinks on any day.

Three out of four people with laryngeal cancer have been a smoker or consumed alcohol regularly for a number of years.

Other factors that may increase the risk of for laryngeal cancer are:

- **age:** most laryngeal cancers occur in people aged 55 years and over
- **being male:** in Australia, men are almost three times more likely than women to get laryngeal cancer
- **family history:** those who have close family members with laryngeal cancer (a parent, sibling, or child) have a higher risk of getting laryngeal cancer
- **low immunity:** e.g. if you take medications to suppress the immune system

- **exposure to asbestos:** people who have lived or worked in an environment that has exposed them to asbestos have a higher risk of developing laryngeal cancer.

## WHAT ARE THE SIGNS AND SYMPTOMS OF LARYNGEAL CANCER?

The signs and symptoms of laryngeal cancer depend on where the cancer is, its size and how far it has spread in the body.

The most common early symptom associated with laryngeal cancer is hoarseness or change in voice.

Other signs and symptoms may include:

- **pain on swallowing**
- **difficulty swallowing**
- **sore throat or pain in the ears**
- **a lump in the neck (swollen lymph nodes or glands)**
- **noisy or difficult breathing.**

Some people with laryngeal cancer may not experience any symptoms at all. However, if you have any of these symptoms for more than a few weeks, talk to your doctor as early as possible. They may be able to help diagnose and treat you.

## HOW IS LARYNGEAL CANCER DIAGNOSED?

It is important that your doctor establishes the diagnosis of laryngeal cancer, assesses the size of the cancer and whether it has spread to the lymph nodes in the neck or elsewhere in the body.

To answer these questions, your doctor will need to do the following things:

- **talk with you about your medical history.** This includes signs you may have noticed, any health conditions, medications that you are taking, and whether you smoke or drink alcohol
- **order diagnostic tests,** which may include scans.

Not everyone will need to have every test for laryngeal cancer. Your doctor will recommend the tests that are right for you.

Common tests include:

- **Nasoendoscopy:** Your doctor will use a very thin flexible tube with a tiny light and camera on it to look inside your larynx. This is an essential part of the full head and neck examination and is performed in the office or clinic using local anaesthesia.
- **Biopsy:** This involves taking a small piece (sample) from the cancer. The sample is then examined under a microscope to check for cancer cells. This is often the only sure way to tell if you have cancer. Your doctor may recommend:
  - **Biopsy of the larynx:** This is commonly referred to as microlaryngoscopy and will need to be performed under a general anaesthetic (medicine to keep you unconscious), so that you don't feel any pain. During this procedure which is performed through the open mouth, your doctor will be able to accurately map the cancer and take a small sample for assessment. There may be some bleeding after the biopsy. If you take blood thinners (e.g. warfarin), you may need to stop these before the biopsy.
  - **Needle biopsy (Fine Needle Aspiration or FNA):** This is used when there is a lump (enlarged lymph node) in the neck that could have cancer cells in it. During the procedure, your doctor will take some cells from the lump using a needle. Usually this is done with guidance from an ultrasound to make sure the needle is in the right spot. You may feel a bit uncomfortable during the biopsy.
- **CT (Computed Tomography) scan:** This uses X-rays to take pictures of the inside of the body. If a person has cancer, a CT scan can help the doctor to see where it is, measure how big it is, and if it has spread into nearby organs or other parts of the body.
- **MRI (Magnetic Resonance Imaging) scan:** This uses magnetic fields to take pictures of the inside of the body. This helps the doctor see how far a cancer has grown into the tissue around it.

- **PET (Positron Emission Tomography) scan:** This is a whole body scan that uses a radioactive form of sugar which can show if laryngeal cancer has spread to the lymph nodes or elsewhere in the body.

## THE CANCER CARE TEAM

After a diagnosis of cancer has been made, your doctor is likely to talk about your diagnosis with the cancer care team they work with. This is known as a head and neck cancer MDT (multidisciplinary team). You may be asked to attend an appointment where the MDT talks about how best to treat your cancer, and coordinate your treatment and care. This team includes experts who will review the diagnosis and tests performed, and considers all parts of your treatment and recovery. The purpose of the MDT is to decide on the best treatment for your cancer and to help you regain the best function possible in the long-term.

Healthcare professionals that are a part of your head and neck cancer MDT	
Head and neck surgeons	specialist doctors who remove cancers in the face, mouth, throat and neck. This includes surgeons with a background in otolaryngology (Ear Nose and Throat), general surgery, maxillofacial surgery, and reconstructive surgery. If surgery is required, the head and neck surgeon will carry out the procedure.
Reconstructive (plastic) surgeons	specialist doctors with expertise in reconstructing the head and neck. Some head and neck surgeons also do reconstructive surgery, depending on their training and experience.
Radiation oncologists	specialist doctors trained in the use of carefully directed radiation to treat cancer.
Radiation therapists	healthcare professionals who deliver the radiation treatment prescribed by the radiation oncologist.
Medical oncologists	specialist doctors who are experts in the use of medicines like chemotherapy to treat cancer.
Speech pathologists	healthcare professionals who work with people who have difficulties speaking or swallowing.
Dietitians	healthcare professionals who give food and dietary advice.

Dentist/oral medicine specialists	healthcare professionals who care for the mouth and teeth. Mouth care is very important in head and neck cancer, especially if radiation therapy is needed.
Pathologists	specialist doctors who are experts in looking at cells under a microscope and determining if they are cancer.
Radiology and nuclear medicine specialists	specialist doctors who interpret scans such as CT, MRI and PET scans.
Palliative care team	specialist doctors and nurses who have expertise in managing symptoms and improving quality of life, often in patients where the cancer can't be cured.
Nurses	healthcare professionals who are experts in the care of people with cancer, and work with all members of the cancer care team. Often, specialist cancer nurses are part of the MDT. They will help to plan and coordinate your care.
Psychologists	are healthcare professionals who assist people with worries about coping and living with cancer (mental health).
Social workers	are healthcare professionals who provide practical and emotional support to people living with cancer.

## WHAT IS STAGING?

Once your doctor has made a diagnosis of cancer, it is important that they assess the extent (or stage) of the cancer. Staging a cancer is important because it helps doctors to choose the best treatment for you. It also gives information about the chances of cure. The stage is based on the size of the cancer, whether it has invaded into nearby areas of the body and whether it has spread to lymph nodes in the neck (called lymph nodal metastases) or other sites in the body, such as the lungs, liver or bone (called distant metastases).

The **TNM (Tumour, Node, Metastases) system** is used to stage cancer. This system is used to summarise information about the size of the cancer and whether it has spread to lymph nodes at other parts of the body.

### THE TNM SYSTEM

- **T** stands for the size of the cancer. A T value can range from 1 (small cancer) to 4 (large cancer).
- **N** indicates whether the cancer has spread to the lymph nodes. Where there is no cancer in the lymph nodes, the N value is 0. An N value can range from 1 to 3, depending on the size and number of cancerous lymph nodes.
- **M** stands for distant metastases, or whether the cancer has spread to other parts of the body outside the head and neck. An M value can be either 0 (cancer has not spread to other parts of the body) or 1 (cancer has spread to other parts of the body).

Once the values for T, N and M have been worked out, they are combined to give an overall score between 1 and 4. Your doctor may write this in Roman numerals: I, II, III and IV.

Staging is complicated but in broad terms cancers may be described as:

- **Early stage cancer (Stage I or II cancers)**, which are small (less than 4 cm in size) and have not spread to the lymph glands or other parts of the body.
- **Advanced stage cancer (Stage III or IV cancers)**, which are more advanced due to their size (more than 4 cm), have spread to nearby parts of the body, the lymph nodes or other parts of the body.

**The chance of cure depends on both the type of cancer and the stage. It is important to know that most patients with advanced laryngeal cancer (even stage III or IV) can be cured.**

## WHAT IS GRADING?

Staging and grading are not the same. Your doctor may also be interested in the grade of the cancer. Grading refers to the growth pattern of the cancer. The grade of the cancer is determined by a pathologist who examines the biopsy sample under a microscope. The pathologist determines the grade of the cancer by how the cells look. The grade can be used to estimate how quickly the cancer is likely to grow and spread. Whilst the grade of the cancer is important, it often does not influence treatment decisions for laryngeal cancer.

## TREATMENT OPTIONS FOR LARYNGEAL CANCER

Following a diagnosis of laryngeal cancer, your **cancer care team** will discuss the treatment options including the possibility of participating in a clinical trial that is suitable for you. This is also a good time to consider if you would like a **second opinion**.

The most suitable treatment for laryngeal cancer depends on many things including:

- size and location of the cancer
- whether the cancer has spread
- personal factors (e.g. age, general health and treatment history)
- treatments available (and whether any clinical trials are available)
- your preferences for treatment.

There are two broad categories of treatment for laryngeal cancers; **surgery and radiation therapy**. Chemotherapy is sometimes used at the same time with radiation therapy (called concurrent chemotherapy).

### SURGERY

Surgery is generally used for advanced stage laryngeal cancer. Your doctor may consider removing the cancer using a robot (Trans-oral Robotic Surgery, or TORS). TORS may be performed by a head and neck surgeon, which is carried out through the mouth without any external cuts.

#### HOW CAN I PREPARE FOR SURGERY?

Your doctor will explain details of the surgery, general risks and side effects of surgery. Ask your doctor if you have questions. They may recommend:

- **stopping blood thinners (e.g. aspirin) before surgery to reduce the risk of bleeding**
- **special stockings to reduce the risk of blood clots**
- **early mobilisation to reduce the risk of blood clots and chest infection**
- **antibiotics to reduce risk of wound infection.**

If you smoke, it is important that you consider stopping smoking before starting treatment to help reduce the risk of information and help you recover after your treatment.

## SURGICAL PROCEDURES

The surgical options for early and advanced laryngeal cancers are:

- **Trans-oral laser or robotic surgery:** Some advanced laryngeal cancers can be removed without any external cuts using a robotic system or by using laser surgery.
- **Partial pharyngectomy:** This is removal of part of the larynx and/or pharynx via an open neck approach.
- **Total laryngopharyngectomy:** This is when the voice-box and pharynx is removed in its entirety.
- **Neck dissection:** This involves removal of lymph nodes from the neck. This is important even when there is no sign of cancer in the lymph nodes on the scan, because there is a risk of microscopic cancer in the lymph glands of the neck.
- **Reconstructive surgery:** This may be considered if a large area of tissue is removed. This may involve taking tissue from another part of the body called a free flap repair. This operation is carried out by a surgeon who specialises in reconstructive surgery, your head and neck surgeon or another surgeon.
- **Tracheostomy:** A tracheostomy is used to create an opening in the trachea (windpipe) in the lower neck, where a tube is inserted to allow air to flow in and out, when you breathe. This is used as swelling after major head and neck surgery may affect your ability to breathe. The tracheostomy tube is usually removed within a week of surgery once normal breathing is possible.
- **Gastrostomy:** A gastrostomy tube (called a PEG tube) goes through the skin and the muscles of your abdominal wall into the stomach. Gastrostomy is recommended if feeding is needed for a medium to longer time (months or years).
- **Nasogastric feeding:** A nasogastric tube goes through the nose down into the stomach. Nasogastric feeding is used for short time (days or weeks).

## SIDE EFFECTS OF SURGERY

Treatment for laryngeal cancer may lead to a number of side effects. You may not experience all of the side effects. Speak with your doctor if you have any questions or concerns about treatment side effects.

## RADIATION THERAPY

The most common radiation therapy treatment for laryngeal cancer is called external beam radiation. This type of radiation therapy applies radiation from outside the body.

Radiation therapy can be used in both the early and advanced stages of laryngeal cancer in the following ways:

- **Small field:** This is frequently used in the definitive treatment (curative) of early (stage I or II) laryngeal cancer in an outpatient setting. This is when radiation therapy is targeted at the larynx alone. Treatments are usually given daily, for a period of 7 weeks.
- **Definitive radiation therapy:** This is a curative treatment option for patients with advanced stage laryngeal cancer. The aim of the therapy is to preserve the larynx and its function. It is another option to removing the voice box (total laryngectomy). Radiation therapy comprehensively treats the cancer of the voice box, its surrounding region, and the lymph nodes at both sides of the neck. Radiation therapy is typically delivered daily (but not on weekends) for 7 weeks and can be given as:
  - **definitive radiation therapy alone; or**
  - **definitive radiation therapy with concurrent chemotherapy (adding chemotherapy to radiation therapy (chemoradiation) to make it more effective).**
- **Adjuvant radiation therapy:** This is given after the surgical removal of the voice box and the lymph nodes (on both or either sides of the neck). It is used as an additional treatment to kill cancer cells that may not have been removed during surgery. It usually starts about 4 weeks after surgery to allow recovery from surgery. Radiation therapy treatment usually lasts for about 6 weeks. Sometimes chemotherapy is added to the adjuvant radiation therapy (chemoradiation) to make it more effective

- **Palliative radiation therapy:** In cases where cure is not possible, radiation therapy is used to relieve symptoms of very advanced laryngeal cancer. Symptoms that may require palliative radiation therapy include pain, bleeding, breathing and swallowing difficulties.

## HOW DO I PREPARE FOR RADIATION THERAPY?

You will meet with many members of the cancer care team, who will help you learn how to look after yourself through radiation therapy, recovery and long-term follow-up. They will also talk to you about side effects and how to manage them. It may be helpful to write down questions as they come up, so you can ask anyone in your cancer care team when you see them.

Before radiation therapy, your doctor may recommend:

- **An education workshop** to learn about the side effects of treatment and how to manage them, meet members of the cancer care team such as nurses, dietitians and speech pathologists, and to hear about the experiences of other patients.
- **Mask-making and simulation:** Radiation therapy is a precise treatment. In order to make sure, that the cancer is covered by the treatment, you will need to very still during the treatment, usually for about five minutes. A radiation therapy mask that is made to fit perfectly to your shape, will be put on you during each treatment to help the machine target where the cancer is.
  - You will have a planning CT scan (and sometimes other scans) with the mask on. Your radiation oncologist and radiation therapist will use these scans with all your other clinical information to develop a radiation therapy plan just for you (a personalised plan). Your plan will be checked by the radiation therapy and radiation oncology physics team, before it is ready to be used for your treatment. This whole process can take approximately 2-3 weeks.
- **Teeth and mouth care:** If you are having radiation therapy for advanced stage laryngeal cancer, dental extraction may be needed to remove any broken or infected teeth before radiation therapy. It is important to take out any broken or infected teeth before radiation therapy. Taking out unhealthy teeth after radiation therapy can cause problems with the jaw bone.
- **Diet, nutrition and the role of your dietitian:** Your cancer and its treatment can make it hard to eat and drink. Your doctor will recommend you see a dietitian to maximise your

nutrition during treatment as well as while you are recovering. Sometime feeding tubes may be recommended depending on the area being treated and the dose of radiation therapy. There are two common types of feeding tubes:

- **Gastrostomy tube (sometimes called a PEG tube):** This type of tube is inserted through your abdominal wall into your stomach, with part of the tube staying outside the stomach. A syringe can be attached to the tube to give you food this way if needed. The tube is inserted using a camera through the mouth into the stomach (gastroscopy) or using a CT scanner to guide insertion directly through the skin. If a PEG tube is needed, your doctor will organise this before starting your radiation therapy.
- **Nasogastric tube:** This type of tube goes through the nose down into the stomach and is usually used for short periods (days or weeks). A nasogastric tube can be inserted at any time (before, during or after treatment).
- **Speech, voice and swallowing:** Your cancer and its treatment can make swallowing and speech difficult. Your doctor will recommend you see a speech pathologist, who can help you with ways to manage swallowing and communication difficulties, during and after treatment. Your speech pathologist will also help with your voice rehabilitation during and after treatment.

## SIDE EFFECTS OF RADIATION THERAPY

The side effects of radiation therapy start around **two weeks** into treatment and progress through treatment to peak in the last week or just after treatment ends. The side effects start to improve 2–3 weeks after the end of treatment.

Side effects of radiation therapy depend on:

- the dose of radiation therapy
- the area being treated
- whether or not chemotherapy is added to the radiation therapy.

Each person responds to radiation therapy differently. Some people may experience a few side effects while others may not experience any at all. The following are some common side effects of radiation therapy.

Common side effects of radiation therapy include:

- tiredness
- hoarse voice
- skin irritation in the treated area e.g. redness, dryness and itching, weeping skin, scaling and sometimes skin breakdown (sores)
- pain on swallowing or difficulty with swallowing
- irritation in the throat progressing to sore throat requiring pain killers
- dry mouth and throat (with advanced stage laryngeal cancer treatment).

Most side effects are short lived and may go away within 4–6 weeks of finishing radiation therapy. Some side effects may last for months after you finish radiation therapy and some may be permanent.

Uncommon side effects of radiation therapy for laryngeal cancer include aspiration (coughing and infection due to food/fluids trickling into your windpipe) and swelling in the airway causing obstruction and difficulty breathing. This can be relieved by the insertion of a temporary **tracheostomy**.

Once your radiation therapy ends, you will continue to have follow-up appointments so that your doctor can check your recovery and monitor any side effects that you may have. If you have had advanced stage laryngeal cancer, your doctor may arrange for a PET scan about 12 weeks after finishing radiation therapy to make sure the cancer has completely gone. If the cancer doesn't go away after radiation therapy, or comes back again in the future, you may still be able to have salvage surgery (total laryngectomy) to try to cure the cancer.

Your doctor may recommend you receive specific supportive care to help during your treatment and recovery.

## **CHEMOTHERAPY**

Chemotherapy works by destroying or damaging cancer cells. For laryngeal cancer, it is usually given into a vein through a needle with a cannula (tube) attached.

There are a number of ways that chemotherapy may be used to treat laryngeal cancer, including:

- **Definitive:** Sometimes chemotherapy is added to definitive radiation therapy (chemoradiation). It is usually used for advanced stage laryngeal cancers. This may be given once every 3 weeks or once a week throughout the duration of radiation therapy. The addition of chemotherapy makes the radiation more effective at killing cancer cells but also leads to increased side effects in most patients.
  - **Adjuvant:** This is when chemotherapy is given after surgery in combination with radiation therapy (chemoradiation). This may be given once every 3 weeks or once a week throughout the duration of radiation therapy. The addition of chemotherapy makes the radiation more effective at killing cancer cells but also leads to increased side effects in most patients.
- **Neoadjuvant chemotherapy:** This is when chemotherapy is given before surgery or radiation therapy to shrink large cancers and make them easier to target with radiation therapy. This is not commonly used for laryngeal cancer.
- **Palliative chemotherapy:** This is used when the cancer is incurable. The cancer may be too large or has spread too far to be removed by surgery. Palliative chemotherapy helps to slow the growth of cancer and reduce symptoms. It is important to remember that palliative chemotherapy is not as intense as other types and is much less likely to have significant side effects.

Before you start treatment, your medical oncologist will choose one or more chemotherapy medications that will be best to treat the type of cancer you have.

The chemotherapy medications your doctor chooses may depend on:

- whether the treatment is curative or palliative
- when it is used
- your medical history.

## **SIDE EFFECTS**

The side effects of chemotherapy depend on the medication used and how much you are given by your doctor (the dose). The most common medications used are called cisplatin, carboplatin and cetuximab.

Each person responds to chemotherapy differently. Some people may experience a few side

effects while others may not experience any at all. The following are common side effects of chemotherapy:

- a feeling of wanting to vomit (nausea) or vomiting
- more [side effects of radiation](#), if you have chemotherapy at the same time as radiation
- loss of feeling in the fingers and toes
- kidney damage (caused by some medications)
- hearing loss/thinning
- ringing in the ears
- rash
- higher risk of infection (if the chemotherapy reduces the number of white cells in the blood)

Most of these side effects are short lived and may go away once you finish chemotherapy. Some side effects can take months or years to improve or may be permanent.

Once your treatment ends, you will have regular follow-up appointments so that your doctor can check your recovery, make sure the cancer has not returned and monitor and treat any side effects you may have.

Your doctor may recommend that you receive some specific [supportive care](#) to help during your recovery.

## SUPPORTIVE CARE DURING TREATMENT

Treatment for head and neck cancer can make it difficult to eat and drink. For example:

- **radiation therapy** may make your mouth dry and your throat sore, making it difficult to swallow. You may notice changes in your taste or you may enjoy your food less.
- **radiation therapy may affect your teeth** (e.g. cause tooth decay). It is recommended that you have a thorough check-up with your dentist before starting radiation therapy. Your dentist may recommend taking out broken or infected teeth that could cause problems after radiation therapy. These teeth may be removed before radiation therapy

- **chemotherapy** may cause changes in your taste, or make you feel sick in the stomach (nauseous) or vomit. These side effects may also reduce your appetite.

## **DIET AND NUTRITION AND ROLE OF YOUR DIETITIAN**

It is important for people with head and neck cancer to stay well-nourished and to avoid unplanned weight loss. If you can't eat or drink enough, you may become malnourished or begin to lose weight. To help you get enough nutrition, you may need a feeding tube for a short period of time.

Having a good diet can help you:

- **get through treatment**
- **reduce the chance you will get an infection**
- **recover more quickly**
- **keep your strength and energy levels up.**

## **WHAT CAN I DO TO KEEP MY FOOD INTAKE UP?**

- **Eat a diet high in protein and calories (energy).**
- **Eat small meals or snacks more often if you have trouble eating a full meal.**
- **Drink calorie-rich fluids such as milk, milkshakes, smoothies or juice. Your dietitian may recommend supplement drinks that are high in protein and calories.**
- **If you have a sore throat, avoid foods that scratch or burn it such as citrus, vinegar, chips or toast.**

## **WHERE CAN I FIND SUPPORT?**

Your dietitian is an expert in food and nutrition who will help you with your diet. Your dietitian will help you work out a plan to get all the energy you need. They may give you some tips to help make eating and drinking easier and to help you enjoy your food to help you keep weight on.

You may have trouble eating and drinking because of your treatment, but you may find that this gets better over time. Some people need a feeding tube to make sure they are eating enough and

getting enough energy. If this is the case for you, your doctor, dietitian and nurse will talk with you about what this involves. Feeding tubes are usually only needed for a short time, until you recover enough and can eat more. Some people may need feeding tubes for a longer period of time.

## **SPEECH, VOICE AND SWALLOWING, AND THE ROLE OF YOUR SPEECH PATHOLOGIST**

Treatment for head and neck cancer may cause changes to parts of your mouth (lips, teeth, tongue, palate) and/or throat (pharynx, larynx), which can affect your ability to speak and/or swallow. These changes may only last for a short time or they may be permanent.

Speech and voice problems can affect your daily life. This may leave you feeling frustrated, distressed or embarrassed, particularly if people have trouble understanding your speech.

If you find it difficult to swallow (known as dysphagia), you may notice:

- **you need to swallow many times to clear food from your mouth or throat**
- **you need to clear your throat or cough while eating**
- **it hurts to swallow**
- **your voice sounds gurgly after swallowing.**

Make sure to drink plenty of water when eating, and include gravy or sauces with foods to help you swallow them more easily.

If your treatment has caused changes to your speech, voice or swallowing, you can get help from a speech pathologist. A speech pathologist is an expert in difficulties with communication and swallowing. Your doctor may recommend that you see a speech pathologist before, during and after your treatment.

Your speech pathologist can:

- **give you exercises or tips to help your speech and voice**
- **help you plan other ways of communicating such as writing or using a computerised voice to speak for you**
- **show you how to use devices or aids if you need them**

- **show you safe swallowing tricks such as changing your head position, or changing the thickness of food/liquids to make it easier to swallow them.**

You may also get help from a doctor or a dietitian and, in some cases, they may recommend a feeding tube.

## **TEETH AND MOUTH CARE AND ROLE OF YOUR DENTIST**

Treatments for head and neck cancer, especially radiation therapy, can cause side effects that affect your teeth and mouth such as:

- **dry mouth**
- **an increase in ulcers or inflammation in your mouth (mucositis)**
- **altered taste**
- **being unable to fully open your mouth (trismus)**
- **tooth decay**
- **infected or bleeding gums**
- **breakdown of tissue or bone in some areas of the mouth.**

These side effects may be painful and may make it difficult to eat, talk or swallow. It is important to take care of your teeth and mouth during treatment because infections can be harmful and slow down your treatment. Some side effects can last for a long time after treatment (late effects).

## **WHAT CAN I DO TO KEEP MY TEETH AND MOUTH HEALTHY?**

There are a number of things that you can do to keep your teeth and mouth healthy.

- **Drink plenty of water and chew sugar-free chewing gum to keep your mouth moist.**
- **Gently brush your teeth, gums and tongue with a soft toothbrush after every meal and at bed time.**
- **Gently floss your teeth every day.**
- **Use high-strength fluoride toothpaste.**

- **Use an alcohol-free mouthwash.**

## WHERE CAN I FIND SUPPORT?

Your dentist is an important member of your healthcare team before, during and after treatment because side effects that affect the teeth and mouth can often be prevented or reduced through regular dental check-ups.

It is a good idea to have a dental check-up before you start treatment. Your dentist will check the health of your teeth and mouth and will give you a plan to keep your mouth healthy. Sometimes teeth that are decayed and unhealthy need to be removed before radiation therapy to reduce the risk of problems after treatment.

- **During your treatment, your dentist will look out for any teeth or mouth side effects.**
- **After your treatment, you should visit your dentist every 6 months for a check-up because the side effects of radiation therapy on your teeth can be long lasting.**

## FOLLOW-UP CARE

You will need regular check-up of your throat and neck after for laryngeal cancer. This will include a physical exam and checking your nose and throat using a thin, flexible tube with a light and camera ([nasendoscopy](#)).

You may need to have follow-up [CT](#), [MRI](#) or [PET](#) scans to catch any early signs of reappearance of the cancer. It is important to keep up with follow-up appointments to make sure that if the cancer comes back it is caught early and can be treated. If you have any concerns between appointments you should contact your doctor.

People who smoke and/or drink alcohol can reduce the risk of their cancer coming back or getting a new cancer if they quit smoking and reduce the amount of alcohol they drink. Ask your cancer care team for advice if this applies to you.

## IMPORTANCE OF ONGOING DENTAL CARE

A dentist plays an important role in your treatment for head and neck cancer. Side effects can often be prevented or reduced through regular dental check-ups before, during and after

treatment. After your treatment, you should visit your dentist every 6 months for a check-up because the side effects of radiation therapy on your teeth can be long lasting.

## **MENTAL HEALTH FOR PEOPLE WITH CANCER**

Sometimes this is referred to as psychosocial aspects or survivorship. Being diagnosed with cancer and having treatment can lead to extra worries or concerns for you and the people caring for you. Depending on the treatment, you may experience any of the following:

- **low mood or depression**
- **anxiety**
- **disfigurement**
- **difficulties with eating**
- **difficulties with speaking**
- **changes in sexual activity.**

You may have got through the diagnosis and treatment for laryngeal cancer, but you may be finding it difficult to deal with some of the side effects of treatment. Speak with your doctor about any difficulties you may be experiencing. Your doctor may give you a referral to a psychologist or another healthcare professional who can help you. Speak with your family and friends too about any concerns you may have.

You may find it helps to join a patient support group and speak with others who are having treatment for head and neck cancer. You can also find help and advice in online self-help resources such as beyondblue.

## QUESTIONS TO ASK YOUR CANCER CARE TEAM

Being diagnosed with cancer can be overwhelming and confusing. There are a lot of information and treatment decisions to make at a distressing time for you and your family. To help you understand everything and get the information you need to make decisions about your health, consider asking the following questions to your cancer care team:

- Exactly what type of cancer do I have? Where is it located?
- Why did I get this cancer? Is it related to the HPV virus?
- What stage is the cancer? What are the chances of cure with treatment?
- What are my treatment options? Which treatment do you recommend for me and why?
- Have you discussed my case at a Multidisciplinary Team meeting and what were the recommendations?
- Who will be part of the cancer care team, and what does each person do? Should I see another specialist before treatment, such as a radiation oncologist, medical oncologist, plastic surgeon, dentist, dietician or speech pathologist?
- What are the possible side effects of treatment in the short- and long-term? How can they be prevented or managed?
- Will the treatment affect my ability to eat, swallow, or speak? Will I need a feeding tube?
- What will happen if I don't have any treatment?
- How much will the treatment and/or operation cost? Will Medicare or my health insurance cover it?
- What follow-up tests will I need? How often will they be?
- Am I suitable for any clinical trials?
- What lifestyle changes (diet, exercise) do you recommend I make?
- Who can I call if I have any problems or questions?
- Where can I find emotional support for me and my family? Is there a support group or psychologist you can recommend?
- If I wanted to get a second opinion, can you provide all my medical details?

You may want to write specific questions here to ask your doctor or cancer care team

#### **About Head and Neck Cancer Australia**

Head and Neck Cancer Australia (formerly Beyond Five) is Australia's only charity dedicated to providing information and support to people living with head and neck cancer, caregivers, family and healthcare professionals.

Head and Neck Cancer Australia's mission is to improve the quality of life of everyone affected by head and neck cancer through education and access to support and to raise awareness of head and neck cancer nationally.

Head and Neck Cancer Australia supports people through their cancer journey, from diagnosis to treatment and life after cancer by providing comprehensive, easy to understand and easy to access information. We have the only Directory of Head and Neck Cancer services and support groups available in Australia and New Zealand helping people to find the right services and support when they need it most.

Phone: 1300 424 848

Email: [contact@headandneckcancer.org.au](mailto:contact@headandneckcancer.org.au)

Web: [www.headandneckcancer.org.au](http://www.headandneckcancer.org.au)

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