

UCDAVIS
HEALTH SYSTEM

LARYNGECTOMY

**DEPARTMENT OF OTOLARYNGOLOGY
HEAD AND NECK SURGERY**

University of California Davis

**SIEVERS
WALKER
RAFII**

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IMPORTANT NAMES AND PHONE NUMBERS

	Name	Phone Number 916 AREA CODE
ENT CLINIC	Otolaryngology Head and Neck and Skull Base Surgery	734-5400
Physician	Paul Donald MD Danny Enepekides MD D Gregory Farwell MD	734-5400
Radiation Oncology	UC Davis Cancer Center	734-5820
Medical Oncology	UC Davis Cancer Center	734-5991
MD Fellow	Clinic office	734-5400
MD Resident	Clinic office	734-5400
ENT Nurse	Ann Sievers RN MA CORLN	734-5400 or 734-2120 VM
Advice Nurse – Clinic	Pam Green RN	734-5400 or 734-1965
Discharge Planner	Discharge Planning Office Main Hospital	734-2944
Speech Pathology	ENT Speech office	734-5400
Dietician	Bev Lorens RD MS	734-2442
Physical Therapy	Physical Therapy Office	734-6700
Social Service	Office	734-2234

UCDAVIS	Phone Number 916 AREA CODE
UCDAVIS EMERGENCY ROOM	734-2011 Main Operator
UCDAVIS TOWER 4 ENT NURSING UNIT	734-3333
UCDAVIS TOWER 7 ENT INTENSIVE CARE UNIT	734-5680

*****add UCDHS map

CHAPTER 1

DIAGNOSIS and TNM STAGING

The diagnosis of cancer will affect your life. You will have choices and options for treatment. You will have information and support about the cancer and how to deal with this diagnosis.

Your treatment options depend on the location, type, and size of your cancer. Your options also depend on your general health as well as your wishes for care.

Many discussions with your physicians, treating team, your friends and family will help you decide what choice to make. It is your choice to choose the therapy you want for yourself.

The cause of head and neck cancer is often related to smoking, chewing tobacco, and alcohol. Other environmental causes have been identified but are not major risks. Smoking and alcohol also cause other medical problems that affect your health and recovery.

TNM STAGING

T = Tumor	1, 2, 3, or 4
N = Node or lymph nodal disease	Many categories
M = Metastatic disease	Cancer in other organ systems
Stage = Classification	Extent of disease
Survival	Usually a % based on 5 year survival statistics

YOUR TNM

	T	N	M
Your Stage			
Your type of cancer			
The location of your cancer			

Much of your recovery depends on your willingness to learn and accept the changes following laryngectomy.

CHAPTER 2

TREATMENT OF CANCER

There are many ways to treat cancer.

Your treatment depends on the type of cancer and your individual response. It also depends on the location and the size of the cancer. Have your physician write down the type of cancer and the specific location. Your treatment plan is for you alone.

Everyone is different and your cancer is unique to you alone. You have many choices and it is important to discuss these choices with your physician and your family.

It is *your* choice. Discuss the choice with your ENT Surgical Oncologist.

TYPES OF THERAPY FOR HEAD AND NECK CANCER

SURGERY

Surgery alone or followed by Radiation therapy, or following other treatments.

If you choose surgery you will be in the hospital for about 2-14 days depending on your type of surgery.

RADIATION

Radiation alone or in combination with surgery or chemotherapy

Radiation is commonly 6 -7 weeks long, 5 days a week and done as an outpatient.

The first session is for treatment planning and lasts about 2 hours. Daily treatments last about 10 minutes. Sometimes people have twice daily treatments

Radiated tissue does not heal well, so nutrition is important. A Radiation Oncologist gives radiation therapy and will discuss the treatments with you.

Speech and swallowing therapy is important during your Radiation treatments.

CHEMOTHERAPY

Chemotherapy is usually used in combination with radiation therapy.

Chemotherapy is most often given as an outpatient.

A Medical oncologist gives chemotherapy and will discuss the treatments with you.

COMBINATION THERAPY

This therapy is a combination of the above treatments.

**PROTOCOL
THERAPY**

These are carefully controlled and supervised studies. You may be asked to participate in research studies about different kinds of cancer treatments. These are controlled or experimental studies. Discuss the possibility of enrolling in a study with your physician.

CHAPTER 3

NORMAL ANATOMY

In your head and neck you have two natural tubes in your body, one for eating and one for breathing. The food tube is the esophagus. The breathing tube is the larynx (voice box) and the trachea. Breathing and swallowing share the same structures in the back of the mouth and throat. In your head and neck area the breathing tube is in front of the swallowing tube.

We *eat* through our mouth, into the throat, down the esophagus and into the stomach. We *breathe* through our nose and mouth. Air goes through the nose and mouth, through the voicebox (larynx), down the windpipe (trachea), and connects to the lungs. We *smell* through our nose and we *taste* in our mouth. Our mouth *senses* the food texture, temperature and type. Smell and taste are important and can change after surgery, radiation, and chemotherapy.

NORMAL BREATHING

You breathe through your nose and sometimes through your mouth. Air follows a path through the voice box (larynx) and into the lungs. Your lungs use the air to give oxygen to the body. You exhale through your mouth and nose.

NORMAL SPEECH

You use your voice box (larynx) to produce sound. Your tongue and mouth shape the sounds to produce words and speech. In normal speech, the vocal folds (sometimes called the vocal cords in the larynx), vibrate, and sound is produced just like a musical instrument. This is important to remember for speech therapy after your surgery.

NORMAL SWALLOWING

Normal swallowing moves food from your mouth to your food tube (esophagus) into the stomach. Your mouth prepares the food, mixes it with saliva, and with strong muscles moves it through the esophagus into the stomach.

ANATOMY AFTER LARYNGECTOMY

BREATHING AFTER LARYNGECTOMY

After laryngectomy (removal of your voice box) you will breathe through a small hole in the front of your neck. This hole or stoma is about the size of a nickel. Your natural pathway for breathing is changed but you will breathe easily from your new airway. Air goes directly into your lungs through your new stoma.

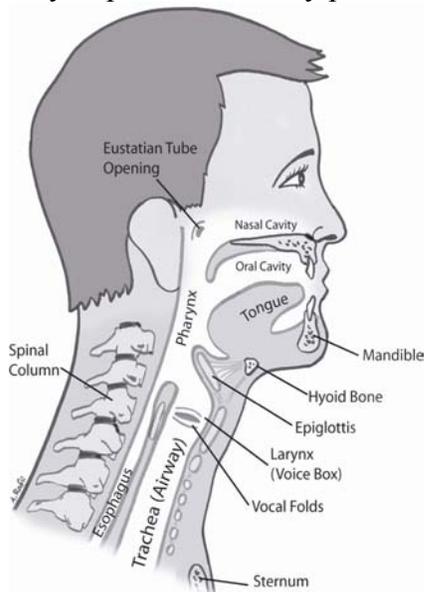
SPEECH AFTER LARYNGECTOMY

After laryngectomy you will never produce your normal voice sounds. A speech pathologist will help you learn different ways to speak. Your voice changes because your larynx, (voice box) is removed. Immediately after surgery you will communicate by writing, gestures, hand signals, and facial expressions. There are *many* ways to communicate after laryngectomy. You and your speech pathologist will work together to learn to communicate using many different types of techniques.

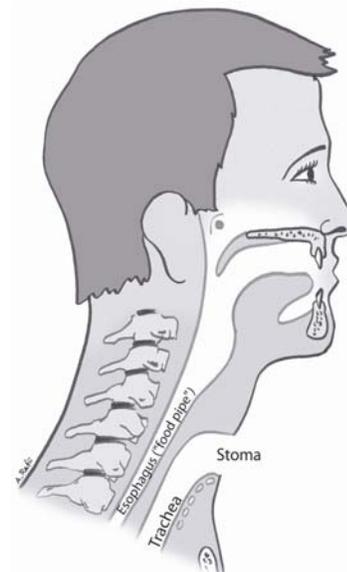
Refer to Chapter 7 on speech rehabilitation.

SWALLOWING AFTER LARYNGECTOMY

Your swallowing will change because the surgery to remove your voice box also affects your swallowing tube. Your breathing and food tube are now completely separate. Immediately following surgery you will eat through a tube. The tube goes from your nose to your stomach, or it can go directly into your stomach. This tube allows your inside incisions to heal. The goal is to swallow after treatment and healing. Good nutrition is very important for every person with cancer.



Normal Anatomy



After Laryngectomy

CHAPTER 4

THE SURGERY

TOTAL LARYNGECTOMY

The size and type of your cancer determines the size and type of your surgery. Depending on the size of your cancer the surgery to remove your larynx will take from 4 to 8 hours. Discuss in detail with your physician how long your surgery will take.

My surgery will take about _____ hours

The most important part of your surgery is to remove the cancer. Another important part is to create your stoma. You will permanently breathe through your stoma. The stoma is a nickel size opening in the front of your neck that connects directly to your lungs.

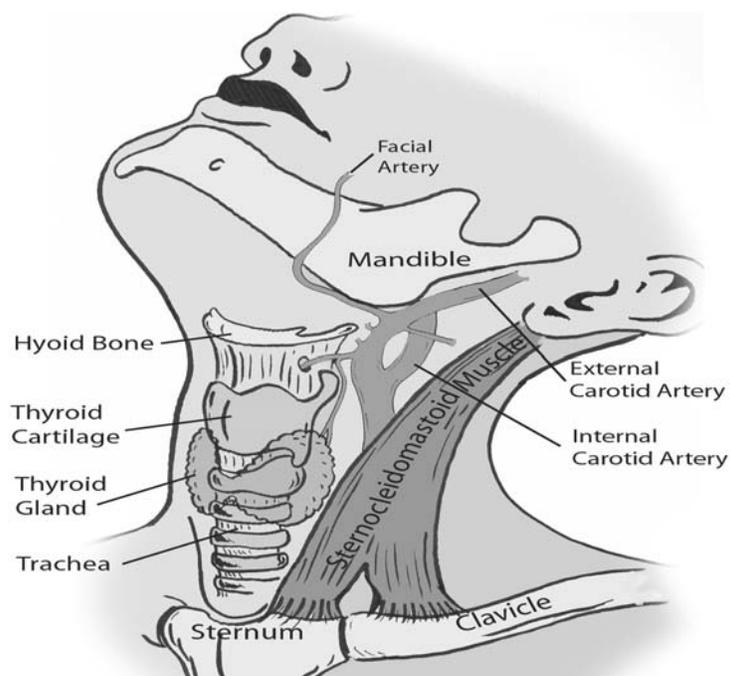
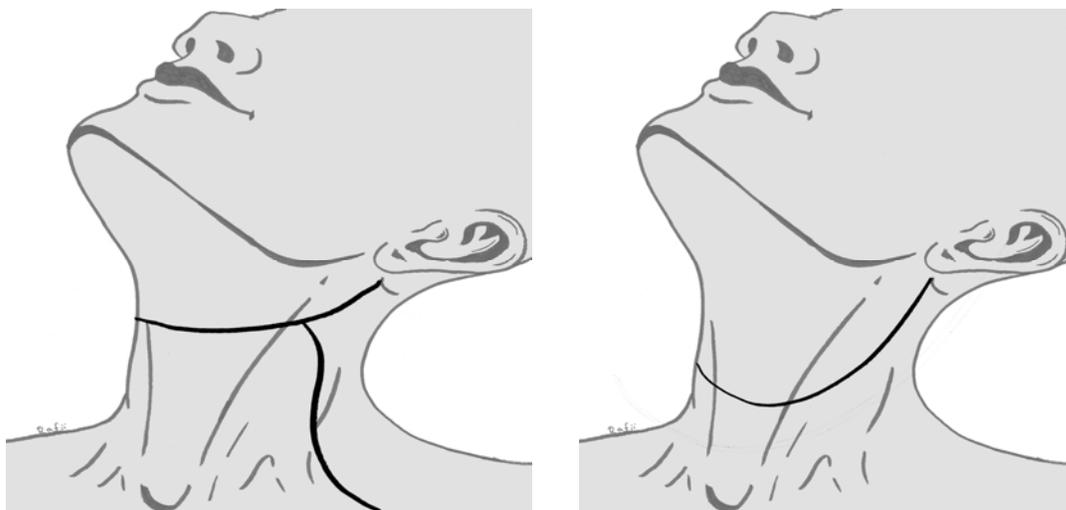
The removal of your voice box (larynx) takes away your ability to talk the same way you did before surgery

NECK DISSECTION

You may need a neck dissection if the cancer has spread or has a high likelihood of spread to your lymph glands in your neck. Neck dissection is the removal of some of the lymph glands in the neck, left, right or both necks. You normally have over 100 lymph glands in each neck. Their job is to filter the lymph fluid, fight infections, and filter the cancer. Removing cancerous lymph nodes is part of the complete surgery.

Ask if this is part of your treatment plan. Ask what type of neck dissection you will need. The type depends on the extent of cancer. If you have a formal neck dissection you may have shoulder weakness. This is because of the removal of a major nerve in the shoulder. Physical therapy exercises will help you recover. It is important to do these exercises!

Your laryngectomy and/or neck dissection incision may look like this:



Surgical Anatomy Diagram

RECONSTRUCTION/ REPAIR

Another important part of the surgery is reconstruction following the removal of the cancer. The kind of reconstruction depends on the size of your cancer and the location. Discuss with your physician what type of reconstruction is best for you.

One way is to let you heal naturally. If necessary, extra tissue from other parts of your body fills the space where the cancerous tissue has been removed. These tissues will help fill in the spaces missing after removing the cancer. Sometimes these new tissues help perform some of the functions the original tissue performed.

TYPES OF RECONSTRUCTION

Primary reconstruction	Letting you heal by yourself with some suturing inside and outside.
Pectoralis major flap	Taking skin and muscle from the front of your chest to reconstruct the surgical defect
Free flap – radial forearm	Skin, muscle, artery and vein from your <i>forearm</i>
Free flap – lateral thigh	Skin, muscle, artery and vein from your <i>lateral thigh</i>
Free flap – rectus	Skin, muscle, artery and vein from your <i>abdominal area</i>
Free flap - scapula	Skin, muscle, artery and vein and bone from your upper back

MY TYPE OF RECONSTRUCTION IS:

POSSIBLE CONCERNS / COMPLICATIONS

Anytime a person has cancer and treatments for cancer there are possible concerns and possible complications due to the cancer and the therapy. Discuss in detail with your physician some of your concerns about the diagnosis and therapy. Your physician and treating team will discuss the concerns of your specific cancer treatment with you.

This is part of what is called informed consent. Discuss also what would likely happen if you choose no treatment for your cancer.

Possible Concerns	Possible Causes
Wound healing problems	Poor nutrition, smoking, alcohol, certain medications, age, pre-radiation therapy.
Reconstruction Flap failure	Poor nutrition, decrease in blood flow, Smoking
Fistula: communication between two structures	Prior radiation therapy, poor nutrition, infection
Cardiac heart problems	Smoking, alcohol withdrawal, age
Bleeding	Aspirin, herbs, NSAID's (like Ibuprofen©, Advil©, Motrin©)
Lung problems pneumonia	Smoking
Stroke	Smoking ,cancer, vascular disease, age
Nutrition, weight loss	Cancer, poor eating habits, age
Alcohol withdrawal	Excess alcohol before surgery
Tobacco withdrawal	Tobacco use before surgery
Caffeine withdrawal	Excess caffeine before surgery

CHAPTER 5

THE HOSPITAL STAY

PREOPERATIVE EVALUATION

Your treating team will evaluate your general health. We will check your heart, lungs, kidneys, overall health and nutrition. This is to make sure you are safe for anesthesia, surgery, and recovery. This is the pre-operative appointment or pre-op. You will have your medical history taken and have a physical exam.

You will have x-rays, CT or MRI scans, and blood and heart tests. It is important to discuss the results of all these tests with your physician and team.

You should see a speech pathologist before your surgery. This specialist will help determine how you can best communicate in the hospital, and talk about speech and voice options and problems after your treatment.

CONSENT – LEGAL DOCUMENTS

At the time of your preoperative exam, you will sign a surgical consent form. This allows us to do your surgery with your permission. This is a legal document that will be kept in your hospital chart. Bring a copy of your Durable Power of Attorney (DPA) and a copy of your Living Will to discuss with your physician.

THE DAY OF SURGERY

The hospital will call you the night before your surgery to tell you exactly what time to come to the hospital. This is a very long day; often the surgery will be longer than 6 hours. Your friends and family can wait at the hospital or at home. Please check in at the main hospital lobby for contact information. Your physician will speak with your family and friends after the surgery.

Sometimes family can visit in the recovery room. But usually you can see your family after you leave the recovery room and are in the Intensive Care Unit.

INTENSIVE CARE UNIT

Most of our patients are in intensive care for only a few days following surgery. This depends on your general health and how well you are healing. We will also have Medicine doctors helping to take care of you. Your family is welcome to visit often in the Intensive Care Unit. You are in ICU for close observation. You will be getting out of bed. Nurses in ICU are specially trained to look after you after this type of surgery. Your doctors will also check on you very often.

WHAT YOU LOOK AND FEEL LIKE AFTER SURGERY

You will be swollen after your surgery, this is normal. You will not have any dressings over your incisions. There will be many tubes including: a NG tube (nasogastric tube) from your nose to your stomach for nourishment, drains under the skin to help the surgery, a Foley catheter to help drain your bladder, IV lines (intravenous tubes) to give you fluid and medications, tubes to measure blood pressure and breathing, and possibly a small tube to help your breath. All these tubes are temporary, and as you get better we will remove the tubes. It is our goal that you will be “tube free” when you go home. Sometimes your stoma needs a small tube to help it heal in the best position. We will explain the care of these tubes.

You will feel very tired and sore after the surgery. You will be sleepy from the anesthesia and the pain medications. It may be hard to focus your eyes because of the medication. These feelings will improve with time. We will give you pain medication to help with the soreness. You may forget part of what happens to you in the intensive care unit and this is normal. We want you to be comfortable, awake, and participate in your own care.

WHAT YOU CAN DO TO HELP YOURSELF

Deep breathing	Every time you wake up take 10 deep breaths Try to do this at least every hour
Coughing	Every time you wake up cough to clear your lungs or every hour
Turning:	Turning will not harm you Let the nurse help you move, but move!!
Moving:	Move your legs up and down Exercise your ankles Stretch your arms and legs Work with the physical therapist
Getting out of bed	Move your legs and arms to prevent stiffness Walking helps you breathe and helps your heart. The nurses will help and guide you until you feel safe.
Learning your own care	Begin to learn your own care as soon as possible. This will help you go home sooner and feel safer leaving the hospital.

Much of your recovery depends on your willingness to learn and accept the changes following laryngectomy. You can help yourself by participating in your own care.

ENT (Ears, Nose and Throat) NURSING FLOOR

When you are better you will move from the ICU to the general ENT nursing floor. These nurses are specially trained to take care of laryngectomy patients. If you press the call button the nurses will respond right away, as we know you cannot talk. You will begin to learn to take care of your self. The nurses will show you everything you need to be safe to go home.

You are in the hospital about 2 to 14 days. Much depends on your general health and how you recover from the surgery. You will go home when you are safe and independent.

SPEECH THERAPY AND COMMUNICATION

Speech therapy begins in the hospital by helping you communicate with your nursing and physician staff. Writing notes, hand gestures, and facial expressions all are used to communicate. You will be communicating by writing. We will give you pads of paper, pencils, and pens. If you want, bring in your favorite paper or pen, or erase board. Facial expressions and finger pointing help communicate your intentions and needs.

Refer to Chapter 7 for much more information about Speech Therapy.

PAIN MEDICATION

Following surgery the pain of your cancer will be gone. We will give you pain medication to make you comfortable from the surgical incisions. Moving around after a long surgery will help prevent stiffness in your arms and legs. Talk with the nurse and physician about how effective your pain medication is in helping you feel comfortable. It is important to let us know how you are feeling. You should try to be awake during the day and sleep at night.

NUTRITION

A dietician is part of your treating team. You will likely be eating through a small tube following surgery. The tube goes from your nose to your stomach. This allows all the incisions both inside your throat and outside on the skin to heal. Once you heal from your surgery, you can try to eat liquids and soft foods. Your dietician, nurse, and physician will help decide what, when, and how to eat. We may do some special swallow studies that help us learn how you can best manage food and liquids.

Good nutrition is *very* important for healing. We will give you protein, calories, vitamins, water and minerals. All are very important to continue to heal and get better and stronger. Some people may require more help with tube nutrition during their cancer treatment. Some people go home with feeding tubes, either in their nose or in their stomach.

We are glad to assist you with home support.

LEARNING YOUR OWN CARE

It is important to learn how to care for yourself following surgery. The nurses and doctors will teach you how to care for your wounds and your laryngectomy stoma. It is important to learn your own care and emergency care as well.

Much of your recovery depends on your willingness to learn and accept the changes following laryngectomy. The goal is to take care of yourself and prevent any problems

SELF CARE

Stoma care	You breathe through your stoma. You must learn to keep your stoma clean and free of mucus. Keep the incision around the stoma clean Prevent problems by keeping your airway clean and moist. Use hydrogen peroxide and cotton tip applicators to clean the stoma
Normal saline spray or instillation	Use normal saline spray every 2 hours while awake Use a bedside home humidifier at night. Your new airway will become used to dry air in a few months.
Suctioning	Learn to suction your airway if you are unable to cough well enough to clear your stoma
Wound care	Use hydrogen peroxide to keep your wounds clean and crust free.
Nutrition Oral or feeding tube	Nutrition is important to help you heal. Learn to swallow properly, the nurses and ENT speech pathologists will help. Learn your tube feeding schedule and practice in the hospital. The nurses and dietician will help.
Scar Massage	Begin scar massage about three weeks after surgery. Talk with your doctor when to begin and what you can use during the twice daily therapy.
Walking	Walk for exercise This helps your muscles and your breathing
Oral care	Clean your mouth and teeth frequently, at least twice a day. Go to the dentist for preventative dental care before surgery and radiation.

PHYSICAL THERAPY

The Physical therapy staff and nursing staff will show you exercises that will help you recovery faster and prevent any stiffness in your shoulders. Getting out of bed is encouraged by everyone. We have a special exercise book for you in the hospital. The

physical therapist will explain exercises and help you learn the safe way to exercise after surgery. It is extremely important to exercise routinely at home after the surgery.

Follow the exercise book at home. *Exercise After Surgery* for Head and Neck Cancer patients. Your physical therapist will give you the book in the hospital.

DISCHARGE PREPARATION

Discharge planners are nurses trained in arranging home support. They will meet with the team, you and your family and friends. We will help arrange the equipment, support, and follow up care that you need.

CHAPTER 6

HOME

Leaving the security of the hospital to go home can be concerning. It is wonderful to leave the hospital. It can be scary to not have the security to call the nurse or to talk with your physician. This is why you should be very comfortable with your own care before you leave.

The nurses will help you become more and more independent before you leave the hospital. You will have the opportunity to ask many questions before discharge.

Keep your follow up appointments in the physician's office or clinic. You can discuss any question about your own care. These discussions reduce worry; contact with your treating team and close observation helps you feel more secure. Much support is available for you and your family.

Depression is normal after such a life changing experience. Don't let depression overwhelm or take control of your life. Discuss with your physician or nurse, if your symptoms require antidepressant medication. This is usually temporary. As you progress through and finish your treatment you may not need the medication. But it can help you during treatment. Many people benefit from antidepressant medication during treatment.

Taking care of yourself at home is important. Be good to yourself and let others help you during your treatment program. Friends and family can help you cope during the treatments. You will experience anger and grief and this is normal for any cancer patient. Social Service support is also available to help you through this difficult time. Support groups through the UC Davis Cancer Center and American Cancer Society are also available. Phone numbers for these services are included at the end of this book.

As you are able, resume normal activities that you love and enjoy. Hobbies, family trips, pets, movies, and outings are good. When you are ready get out and enjoy life.

CHAPTER 7

SPEECH OPTIONS

Our voice, our face and our expressions are who we are. The loss of voice is at first very hard. After surgery you will have many options for communicate. Over time you will learn to adapt and enjoy many different ways to communicate. Much depends on your willingness to learn and accept the changes after laryngectomy. With a laryngectomy your old voice is gone, but there will be new ways to communicate.

You will meet with your speech pathologist before the surgery to plan ways to communicate after the surgery. Most people use a combination of communication methods depending on the situation. You will choose methods that fit what you are trying to say and match your ability. We will help you find the best method for you

WAYS TO COMMUNICATE IN THE HOSPITAL

In the hospital, right after your laryngectomy surgery, you will rely on writing, hand gestures, and facial gestures to communicate. Facial expressions are important. Over articulation, or exaggerated movement of the lips will help in lip reading. Slow down and be careful how you pronounce words.

It may be frustrating at first, but practice and patience helps.

AFTER YOU HEAL

Many people use different methods of speech. Use any and all methods that allow you to communicate. Options are always important.

Artificial larynx / Electrolarynx

An artificial larynx (or electrolarynx) is a battery powered device that produces a vibration. By placing the vibrating electrolarynx on your neck, the sound vibrations will transfer to your mouth. Your lips and tongue still do all the work to shape that sound into speech. The sound/vibration produced by the electrolarynx can also be introduced into your mouth through a small plastic tube placed on the tongue. There is also an electrolarynx that can be made in an upper denture. The particular device that works best for you will depend on your surgery and other factors. Your Speech Pathologist and your doctor will help determine which instrument will be best for you. The more you use the electrolarynx the more it will become your own speech pattern.

Practice and patience improves communication.

Esophageal speech

Esophageal speech is a speech method that *does not* use an electric device. When we move our tongue and lips to form words we naturally push air to the back of the throat

and into the esophagus. The back of the throat (esophagus) can vibrate and with practice you can control this vibration (sound). That vibration makes sound and the lips and tongue do all the work to shape the sound into speech. This technique takes some time and effort to learn and to perfect. But it can be worth the effort.

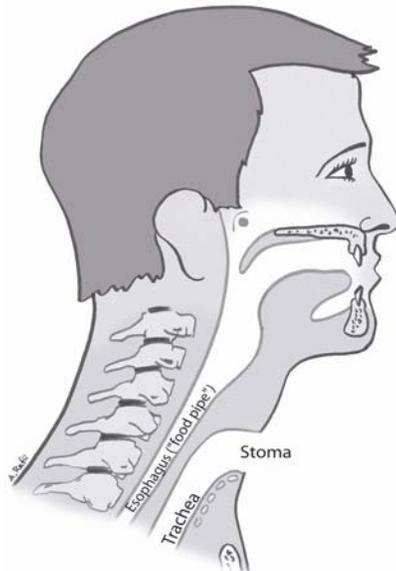
TEP Tracheoesophageal Speech

Another way to get sound into your throat (esophagus) is called the tracheoesophageal puncture or TEP. This method requires surgery to create a new small hole in your stoma (breathing hole) to connect your airway (trachea) and your food tube (esophagus). To speak, place your finger over your stoma and the new hole, which when you breathe out, allows air up into your esophagus producing vibration. Again the lips and tongue do all the work to shape the vibration into speech.

A tube must *always* be in this small new speech hole to keep it open. A small short tube, called a voice prosthesis (or one way air valve), sits in your communicating hole. This one way valve, the voice prosthesis, allows air into your esophagus, but doesn't let food or water into your lungs. Care of this new hole and the prosthesis takes time to learn how to clean it and it free of secretions. You will want to be independent in your own care. You can learn to remove, clean and replace the prosthesis on a regular basis.

People who are good candidates for TEP speech are people who have good hand eye coordination, manual dexterity, and good tissue to place the TEP. There is a learning process to taking care of the prosthesis, and this take time, but the rewards are worth the effort. You can purchase the prosthesis replacements as you would medication, with a prescription from your physician.

Discuss all this with your Speech Pathologist before having the TEP surgery so you are prepared to take care of yourself. Your Speech Pathologist and your doctor will discuss whether you are a candidate for a TEP. If you are, it will still be your decision whether you want on or not. The pros and cons for your individual situation will be discussed at length to help you decide.



After Laryngectomy

***Add TEP picture.....

Adaptative devices/computers

Computerized speech is another way to communicate. It is very useful in certain situations. For example, if your tongue or mouth does not work well enough to form words clearly. As computers become more and more sophisticated they become easier to use. These adaptative devices produce synthesized speech and help speak for you. In some cases you type in words, with others you preset certain phrases. Look at our website lists (in the appendix) for further information. Work with your Speech Pathologist to find a devise that suite your needs.

HOME COMMUNICATION IDEAS

Early in recovery communication can be frustrating. Plan ahead; consider recording some messages for your telephone until you are comfortable with your new way of speaking. Or, you can use a hand held tape recording and carry it with you to use with a phone.

Examples:

To your family and friends: *I'm fine, come over to see me.*

For assistance: *Help, I am a laryngectomy and cannot speak and need assistance now.*

To your physician's office: *I cannot speak, my name is _____ please make an appointment for me. Call _____ to confirm my appointment.*

To your local drug store: *Please assist me, I cannot speak, my name is _____ and I need to refill my prescription.*

Some people use preprinted flash cards but most just typically write what they need. Some people use a white dry erase board. Some people use a pad and paper or a binder. Some people use a personal communication assistant (PCA) or hand held computer.

EMERGENCY COMMUNICATION

911

If you call 911 on a land line a regular phone line, (not a cell phone), the operator will know your address without any one speaking. If they hear nothing the policy is to dispatch a medical responder to investigate the problem. If you are calling from a cell phone, the operator will not be able to tell where you are.

Go and visit the nearest fire/ambulance station. Introduce yourself as a laryngectomy. Tell them you cannot speak in the normal way and show them your stoma where you breathe. Tell them if they ever respond to your home that they must help you breathe through your stoma, not your mouth and nose. Everyone will benefit from meeting you.

Because your sense of smell is different, you may not detect smoke or gas leaks. Consider home alarms that help you detect these, and let your family know to be extra careful. Your local fire/rescue team may have suggestions for alarms.

Get a Medic Alert bracelet or necklace for identification as a laryngectomy.

1-800-432-5378

IAL International Association of Laryngectomee

The IAL has a video tape of how to do rescue emergency breathing and CPR for a laryngectomy. You and your family should watch this together. See web information list.

CALIFORNIA ACCESS PROGRAM

The California Telephone Access Program (CTAP) provides to California telephone consumers telephone equipment *free of charge*. As a laryngectomy the CTAP provides you with an electrolarynx and other equipment like speaker phones.

The *TTY* is a device designed for typing messages into the phone. The telephone company adds a keyboard device to your telephone. This device transmits typed messages through an operator who reads the messages and makes your calls. The physician will sign a form from CTAP .

CTAP California Telephone Access Program

1-800-806-1191 (English)

1-800-949-5650 (Spanish)

APPENDIX

A. Stoma care

B. Do's and Don'ts

C. Saline at home

D. Web information and California Clubs

E. Discharge Instructions and Phone numbers

A. CARE OF YOUR STOMA

LARYNGECTOMY HOME CARE

OBSERVATION

Check the area around the stoma and inside the wall of your trachea for mucus and crusts that may have formed overnight. You will need a flashlight and a mirror to look in your stoma. Do this in the morning and evening. Make this a regular routine.

CLEANING

Gently wash the skin around the opening with mild soap and water and wipe dry. If your stoma is kept clean and free from secretions, your skin will not become dry or irritated.

HUMIDIFICATION AND SALINE SPRAY

Until your airway is well healed and you are used to breathing dry air, use a saline spray to keep your stoma moist. Use the spray, *1 to 3 sprays* into your stoma, *every 2-3 hours* to keep your airway clean and moist. Only you can tell if your secretions are easy to cough out and your airway is clean, pink, and glistening.

Since the air you breathe does not pass through your body's natural moistening system (your nose and mouth), it is important to humidify the air you breathe. This extra humidity helps prevent stoma crusting, eases breathing, and reduces coughing.

If possible have a humidifier in your bedroom, since the stoma tends to crust and dry more at night. Warm or cool humidification is your personal preference. Keep the equipment clean to prevent infections.

Wearing a stoma cover helps keep your stoma clean, dust free, and retains moisture.

REMOVING CRUSTS OR PLUGS OF MUCUS

If there is mucus in the stoma, try to cough it out. Use your saline spray or, try applying a warm, damp cloth over the stoma. Try running hot water in a sink, lean over and through your stoma inhale the steam. A steamy shower is wonderful, but do protect your stoma with a washcloth or shower shield.

COVERING

Covering your stoma helps keep it clean and healthy by preventing dust particles from entering your airway. It also retains the warmth in the air you breathe.

A stoma cover can be tied around your neck. A crocheted bib is popular and can be obtained through the American Cancer Society or laryngectomy association. You can make your own. You can also wear scarves, a turtle neck or jewelry to cover your stoma. Some people like to wear cotton U-neck undershirts.

For shirts that button, you can unbutton the second button (and sew a new button on the outside) so you have an opening to insert a handkerchief for coughing.

SHOWERING BATHING AND SHAMPOOING

Showering and bathing make you feel better and can add important extra humidity for your stoma. You should prevent excess soap and water from entering your stoma. Use a chest high shower spray or shower hose. Some people use a stoma shield, but most like to use a damp-dry cloth over the stoma. Some people cup their hand over their stoma and put their back to the shower head.

Because your sense of smell is different, attention to personal hygiene is important.

PRECAUTIONS

Shaving: If you lather, be careful not to get soap in your stoma. Also be careful of aerosol sprays, or aerosol deodorant sprays. This may be very irritating to your airway. Use them carefully. Your neck may be numb for a few months after surgery, so be careful not to accidentally nick your neck without knowing.

Sunbathing: Avoid the sun around scar tissue. Always use sun screen and protective clothing. Always wear a hat when you are outdoors and in the sun.

Use *stoma covers:* to protect against dirt, dust, bugs, cold winter air and hot dry air. You can purchase stoma covers in many sizes and thicknesses. See appendix.

Blankets and covers: Your natural instinct will prevent blankets from covering your stoma, much like you do with your nose and mouth before laryngectomy.

B. DO'S AND DON'TS FOR LARYNGECTOMY PATIENTS

DO LEARN TO KEEP YOUR STOMA CLEAN

The inside of your stoma should be clean, moist, and glistening. It should look like the inside of your mouth. Saline spray or drops to help keep it moist are very important.

DO LEARN TO KEEP THE TUBE CLEAN

Not all people wear a tube. If you do, follow your physician's and nurses direction for its care. See attached information if you do wear a tube.

DO COVER THE STOMA WHEN OUTDOORS

Use gauze, cotton, or crocheted covers.

DO EXERCISE MODERATION--IN EVERYTHING YOU DO

But DO exercise, walking is great!

DO DRESS COMFORTABLY

Allow for circulation of air, increased coughing and protection of clothing from coughing and secretions.

DO COVER YOUR STOMA WHEN COUGHING, SNEEZING

Use tissues or handkerchiefs to pick up any normal mucus that is expelled.

DO WEAR IDENTIFICATION

You should carry medical identification. It is available from the American Cancer Society, Medic Alert and or your physician.

DO HAVE REGULAR EXAMS

Regular exams with your primary doctor and your ENT doctor keep you healthy.

DO NOT ALLOW WATER TO ENTER YOUR STOMA

Do not swim unless you use a Larchel snorkel, which will help protect your airway. Use care in bathing, shaving. Use a shower shield or a moist towel to cover your stoma. Showers with extra humidity are important and helpful.

DO NOT FEAR SLEEPING

Instinct will work for you when you are asleep

DON'T INHALE SMOKE, DUST OR IRRITATING FUMES

A comfortable clean area that has a medium amount of humidity is good. Stoma covers are important for cleanliness.

DON'T ALLOW HAIR, THREADS, DUST TO BE INHALED

Warn your hairdresser or barber. Be alert yourself for loose threads buttons and excess dust. Your natural cough is a normal and good protection.

DON'T ALLOW YOUR HOME TO DRY OUT

Use saline squirted into your stoma to keep it moist and clean. Use saline squirts, spray bottles, or droppers. Use extra humidity in your home. A simple bedside humidifier is great

DO GET INVOLVED IN YOUR LOCAL LARYNGECTOMY SUPPORT CLUB

You can purchase stoma shields and stoma covers from many stores look on the internet and the IAL web site. Look at the web site for your laryngectomy club or the cancer society.

SUPPLIES AND STOMA COVERS

Dean Rosecrans	Edmund Lauder
PO Box 710 Nampa Idaho 83651 1-800 237-3699 1-800 522-4425 Ask for a free sample kit as a new laryngectomy	Lauder Enterprises 11115 Whisper Hollow San Antonio Texas 78230-3609 210-492-0864 phone 210 492-1584 fax 1-800-388-8642
www.deanrosecrans.com	www.voicestore.com lauder@voicestore.com

**Use a Medic Alert bracelet
1-800-432-5378**

DON'T BE A RECLUSE

GET OUT AND ENJOY LIFE

**LARYNGECTOMEES ARE QUIET FOR ONLY A SHORT
TIME**

C. SALINE AT HOME

Equipment

1. Saucepan 1 quart
2. metal tongs
3. clean glass jar with lid
4. table salt 1 tsp
5. tap water

Preparation

1. Place jar, lid and metal tongs in saucepan
2. Allow handle
3. Fill the pan with tap water to cover the jar.
4. Boil the water for 30 minutes
5. After it has boiled to 30 minutes, allow it to cool until you can touch the tongs
6. Pick up the jar with the tongs and place it on a table.
7. Measure one teaspoon of salt and place it in the jar
8. Using the tongs, place the lid on the jar.
9. Tighten the lid and shake the solution to mix thoroughly
10. Store the solution in a refrigerator and use for 3 days
11. Instill saline solution using a standard eyedropper or atomizer.
12. Discard the unused portion after three 3 days
13. Make more saline as you need.

D. REFERENCE AND WEB INFORMATION

American Cancer Society

<http://cancer.org>

Sacramento Cancer Society

916

<http://www.larynxlink.com>

Larynx Link – International Association of Laryngectomees. This site contains a huge list of internet websites.

The list of local laryngectomy clubs around the country is listed here:

LARYNX-C@LISTSERV.ACOR.ORG

An online discussion/support group for laryngectomees, families and health care providers

<http://www.laryngectomees.inuk.com>

Laryngectomees of the United Kingdom: Useful information and includes a humor column called Laryngectomee Laughs

<http://www.cancer.org/>

American Cancer Society Home Page - extensive information about many types of cancer including: All About Laryngeal and Hypopharyngeal Cancer

<http://www.thecancer.net/>

The Cancer Information Network: medical information about many cancer types

<http://www.healthfinder.gov/espanol/>

Healthfinder: a website with health and disease information in Spanish

Healthfinder® español contiene fuentes de información seleccionadas en español.

<http://www.entnet.org/>

The American Academy of Otolaryngology -- Head and Neck Surgery (AAO-HNS) Home Page: information for patients and families

<http://www.livestrong.org/>

Lance Armstrong Cancer Survivor Care website

<http://www.cansearch.org/> **General cancer survivor information.**

Also en Espanol.

<http://www.webwhispers.org/>

Web Whisperers: a website set up by laryngectomees that contains a wealth of information about rehabilitation

<http://www.ddtp.org/CTAP/>

A website about the California Telephone Access Program that provides the electrolarynx and other services to California telephone customers

<http://www.assistivetech.com/>

Assistive Technology is a California based company selling the Link Plus and Lightwriter, portable computerized machines for speech production

<http://www.zygo-usa.com/lighwrts.htm>

Zygo Industries also sells the Lightwriter, a small speech synthesizer used by typing

<http://www.spohnc.org>

support for people with oral and head and neck cancer

1-800-377-0928

E. PATIENT DISCHARGE INSTRUCTIONS FROM THE HOSPITAL

TOTAL LARYNGECTOMY

HANDOUTS

DISCHARGE WITH

Suction machine
Laryngectomy discharge kit
Wound care supplies

STOMA CARE

Normal saline to stoma every two hours while awake
Bedside humidification at night
Hydrogen peroxide and Bacitracin to stoma to keep crusts from forming

WOUND CARE

Hydrogen peroxide and Bacitracin ointment light application as needed
Keep incisions clean
Wound care _____

CALL ENT CLINIC

734-5400 DURING THE DAY
734-2011 EVENING & NIGHT - ENT MD on call

- fevers
- airway problems/questions
- increased pain /tenderness around wound
- wound swelling
- any other questions

ENT Clinic follow up appointment: _____

Speech therapy follow up appointment: _____

UC DAVIS ENT CLINIC	916 734-5400
TRIAGE/ADVISE NURSE	916 734-5400 OR 734-1965
SPEECH PATHOLOGY	916 734-1104 OR 734-5400
UC DAVIS TOWER 4 ENT NURSING UNIT	916 734-3333
UC DAVIS TOWER 7 ENT INTENSIVE CARE UNIT	916 734-5680
UC DAVIS EMERGENCY ROOM	916 734-2011
UC DAVIS MAIN HOSPITAL NUMBER	916 734-2100

