

A close-up photograph of a woman with long, wavy blonde hair, smiling warmly. She is wearing a dark green off-the-shoulder top and large, light-colored, leaf-shaped earrings. A clear tracheostomy tube is visible on her neck. The background shows a bright, outdoor setting with a blue sky and green foliage.

**TOTAL**  
*Solution*

# Life after laryngectomy

What to expect after your surgery



Cathy and Sandi have been best friends for years and get together twice a week to enjoy a morning yoga session.





InHealth Technologies® serves patients throughout all stages of the total laryngectomy experience, from preoperative education to surgical solutions to postoperative care and voice restoration. We provide all the products and services you need, including support from leading clinical specialists, experienced patient consultants, and dedicated customer service representatives.

# Learning to live a new life

You've had a total laryngectomy (*lair-in-JECK-toe-mee*). This is a surgery in which your larynx (*LAIR-inks*) has been removed. The larynx is also called the "voice box." People who have had a total laryngectomy are sometimes called "laryngectomees."

Naturally, you have questions. The information in this brochure will help you move forward confidently as a laryngectomee.

- Leaving the hospital
- Total laryngectomy: your new anatomy
- Physical changes to expect after your laryngectomy
- Caring for your tracheostoma (*TRAY-kee-oh STOW-ma*), or "stoma," and related devices
- Practical safety considerations
- New ways to communicate moving forward
- Taking care of your voice prosthesis
- Looking ahead with confidence



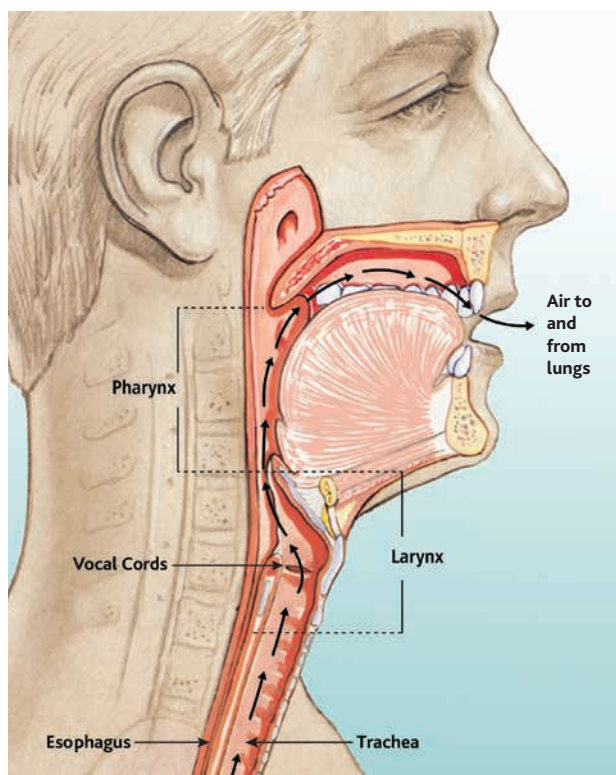




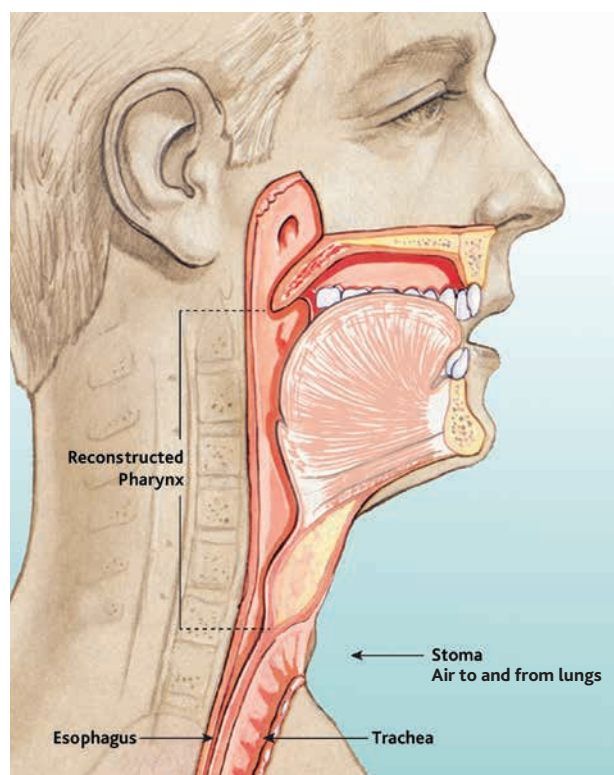
# Total laryngectomy: your new anatomy

After surgery, your anatomy will change. You have an opening in your neck called a stoma. The stoma is formed by attaching the upper end of the trachea to an opening in your neck. The stoma leads directly to your lungs. This permanent opening between the trachea to the surface of the neck is sometimes referred to as a tracheostoma. You breathe through your stoma and not through your nose and mouth. Air passes through the stoma into and out of your lungs. You are now a “total neck breather.”

## Before Surgery



## After Surgery







Kevin is an outdoor woodmans from Canada. In addition to hiking, he is a boating enthusiast.

# Physical changes to expect after your laryngectomy

## Removing your larynx and forming a stoma changes a number of your body's functions:

- You will breathe only through the stoma in your neck.
- When coughing, you will place your hand over your stoma rather than over your mouth.
- Your sense of smell and taste will probably lessen because you will no longer breathe through your nose or mouth.
- While your nose may still run, you will not be able to sniff or blow air out of it.
- You will not be able to hold your breath. This may make it more difficult to lift heavy objects or strain to complete certain other tasks.

## While your lips will move, you will not be able to vocalize the way you did before, and during recovery, you will need to use other means of communicating:

- In writing, using pencil and paper, a dry erase board, texting, or typing
- With picture boards
- With gestures
- Pointing to specific needs on a laryngectomy needs chart
- Working with a speech-language pathologist to use an electrolarynx, also called an "artificial larynx," along with an oral adapter

*Blom-Singer®  
Electrolarynx EL 1000*



Laryngectomy Needs Chart			
Water	Adjust bed	Pain	Clean stoma
Juice	Change bedding	Medication	Tissue
Hungry	Bed pan	Diarrhea	Mirror
Dry Mouth	Bathroom	Constipation	Clothes
Ice Chips	Bath	Nausea	Glasses/Contacts
I am Hot/Cold	Washcloth	Suction	Comb/Brush

Free downloadable chart.  
<https://inhealth.com/educational-materials>





A Georgia resident, Janice serves the Atlanta area as a realtor, helping families find the perfect home.

# Caring for your tracheostoma, or “stoma,” and related devices

## Your stoma

While in the hospital, your healthcare team will teach you how to care for your stoma. It's very important to keep your stoma clean and protected.

After surgery, you will typically have an increase in the amount of mucus or secretions your body produces as it adjusts to your new breathing anatomy.<sup>1</sup> These secretions come directly out of the stoma. You and your caregivers will likely learn how to suction these secretions before you are discharged from the hospital. You may be able to cough or clear these secretions without suction.

## Your laryngectomy tube or button

You may wear a soft silicone tube in the stoma. This is called a laryngectomy tube (also referred to as a “stoma vent”). The stoma is surgically created to stay open and not close when healed. The laryngectomy tube helps your stoma maintain its size and shape.

Instead of a tube, you may prefer to wear a silicone laryngectomy button, which is shorter. Held in place by tension, the button also helps maintain the opening of the stoma.

Whether you wear a laryngectomy tube or a laryngectomy button, it must fit precisely. Your healthcare team or a speech-language pathologist can take measurements and fit you.

With proper care, your laryngectomy tube or button can be used for up to 6 months.<sup>4</sup>



*Blom-Singer® StomaSoft®  
Laryngectomy Tube,  
nonfenestrated (BE 6698)  
and Blom-Singer® Easy-  
Flow® HME Cartridge  
(BE1055EF)*



*Blom-Singer®  
StomaSoft®  
Laryngectomy Tube,  
being cleaned in water.*





Bill serves as a certified patient volunteer at the James Comprehensive Cancer Center at Ohio State University.

## CLEANING INSTRUCTIONS:

1. Remove the tube from the tracheostoma and remove any attached devices.
2. Rinse the tube under warm running water.
3. Soak the tube in hot water containing at least two drops of dish soap per 8 oz. of water for at least 15 mins.
4. Remove tube from the soap and water solution and rinse under warm water. Gently clean the inside and outside of the tube with a cleaning foam swab (sold separately from InHealth Technologies). Do not use cotton swabs to clean the tube as fibers may be left behind
5. Rinse thoroughly under running water.
6. Allow tube to air dry.

# Your heat and moisture exchange system

As you now breathe through your stoma instead of your nose and mouth, your body cannot warm, humidify, or filter the air you breathe on its own. The air reaching your lungs may therefore be cool, dry, and possibly even dirty. Also, the increased mucus your body may produce in response to your surgery or your new way of breathing can be thick, dry, and difficult to move.

A humidifier can help, but a more long-term solution is to use a heat and moisture exchange (HME) system. The HME system helps filter out dust or dirt particles and helps keep the air you breathe warm and moist, so that mucus and secretions stay thinner and less troublesome.

To create your HME system, a cartridge made up of a specialty foam filter in a holder is placed in your laryngectomy tube or button. If you do not use a tube or button, the cartridge can be attached to an adhesive housing. Adhesive housings are lightweight, flexible, and disposable. They come in different types and different shapes to ensure a good fit to the stoma.

With regular use of an HME system, you will find that your coughing is decreased, your mucus is easier to clear, and your breathing feels more comfortable.

When you begin using an HME device, you may feel a slight increase in airflow resistance during breathing. This resistance is a normal function of the HME device. Your body should adjust to this change in time.

You will need to change your HME cartridge periodically, and your healthcare team can advise you on the best cartridge and housing for you.



*Blom-Singer®  
ClassicFlow® HME  
(BE 1055EZ)*



*Blom-Singer®  
EasyFlow® HME  
(BE 1055EF)*



# The FitSeries Adhesive Housings

The FitSeries Adhesive Housings are lightweight, flexible materials offered in 3 shapes that fit various peristomal anatomies. They are disposable, all-inclusive adhesive housings designed to hold the SpeakFree HME, ATSV II, HME cartridge, or Shower Guard over the stoma.

## AccuFit<sup>®</sup>, HydroFit<sup>®</sup>, and TruSeal<sup>®</sup> Low Profile Adhesive Housings are available in three shapes to help you find your best fit

### Blom-Singer<sup>®</sup> AccuFit<sup>®</sup>:

- Designed to be our strongest, most adhesive option while still maintaining flexibility and stretch
- Increased elasticity and higher resistance to tearing

### Blom-Singer<sup>®</sup> HydroFit<sup>®</sup>:

- Gentle and flexible while still attaching firmly to the skin
- Strong adhesion yet easily removable
- Absorbs sweat while still maintaining adhesion
- Moist environment for optimized healing

### Blom-Singer<sup>®</sup> TruSeal<sup>®</sup> Contour<sup>™</sup> Low Profile:

The Blom-Singer<sup>®</sup> TruSeal<sup>®</sup> Contour<sup>™</sup> Low Profile Adhesive Housing is a lightweight, flexible material made to fit various peristomal anatomies. It has a lower profile from the standard housing, reducing its height and overall profile. Available in three shapes: round, standard, and oval.



# Practical safety considerations

## Keeping water out of your stoma

As a total neck breather, you cannot protect your airway by closing your mouth or pinching your nose. Whether your stoma is open or covered by an HME device, water can easily enter it and move down into your lungs. While you may be able to cough out a small amount of water, large amounts of water could lead to pneumonia or drowning.

Be cautious of situations that put you at a higher risk of being submerged in water. Swimming and even just being around bodies of water can be very dangerous for people who have had a total laryngectomy.

Bathing or showering can be dangerous, too, but you can protect your stoma and lungs with a shower guard. The shower guard will direct water away from your stoma and still allow you to breathe comfortably. You may also want to use a detachable handheld showerhead.



*Shower Guard  
(BE 6048)*



Gone Fishing with Grandkids - Robert shares his passion for pier fishing with his grandkids at the Ventura Pier.



# Practical safety considerations

## Alerting emergency personnel that you are a neck breather

Letting your local medical and emergency personnel know that you are a total neck breather can help ensure you receive the help you need in an emergency.

You should alert your local emergency medical services (EMS) unit, your fire department, your police station, and your primary care physician. In an emergency, cardiopulmonary resuscitation (CPR), supplemental oxygen, or rescue breaths must be administered to the stoma, not to your mouth or nose.<sup>5</sup>

During an emergency, it may be more difficult to communicate your specific needs. Your local emergency dispatchers may be able to flag your phone number and address so that they'll know to send help immediately if they receive a phone call from you. If you have a mobile phone, you should also designate an ICE (in case of emergency) contact. Medical personnel are trained to look for these contacts in your mobile phone.

In addition, you may want to wear a medical alert bracelet to indicate your status as a total neck breather. You can also carry a medical card in your purse, wallet, and car to identify your status.

## Avoiding and clearing mucus plugs

A mucus plug occurs when a hardened ball of mucus or dried secretions forms. Mucus plugs are dangerous because they can block your airway and make breathing difficult. Using an HME system can help avoid them.

Mucus plugs can be caused by changes in temperature, illness, or a very dry environment.

Be aware when your secretions are becoming thick and dry or sticky. If you feel your breathing is restricted, you should call your healthcare team or go to the nearest emergency room.

If you have a laryngectomy tube, it can get clogged or narrowed with secretions. Check to see if the tube is plugged with mucus and needs to be cleaned. Follow the cleaning instructions for your tube.

***If you become short of breath, call 911 or go to the nearest emergency room.***

Cathy's laryngectomy was done in 1998. She does some last minute touch-ups before heading out to visit family in Florida.



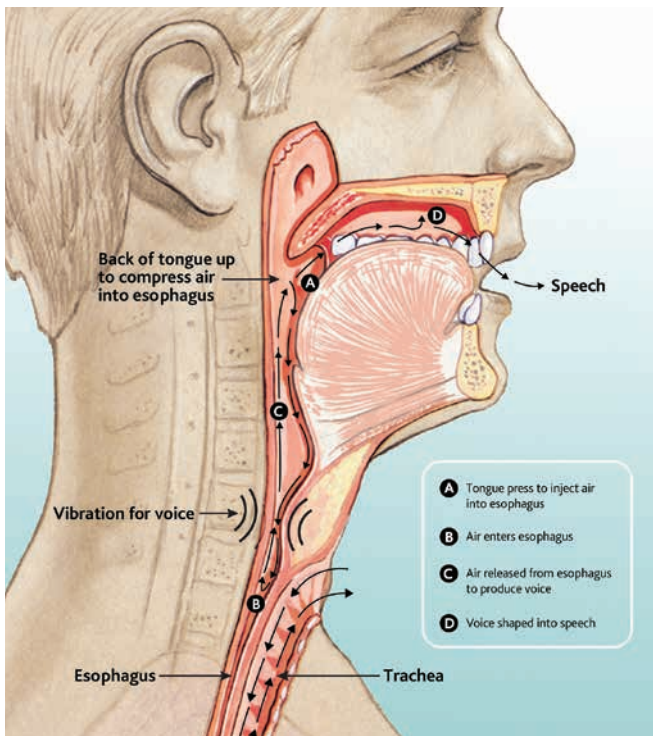
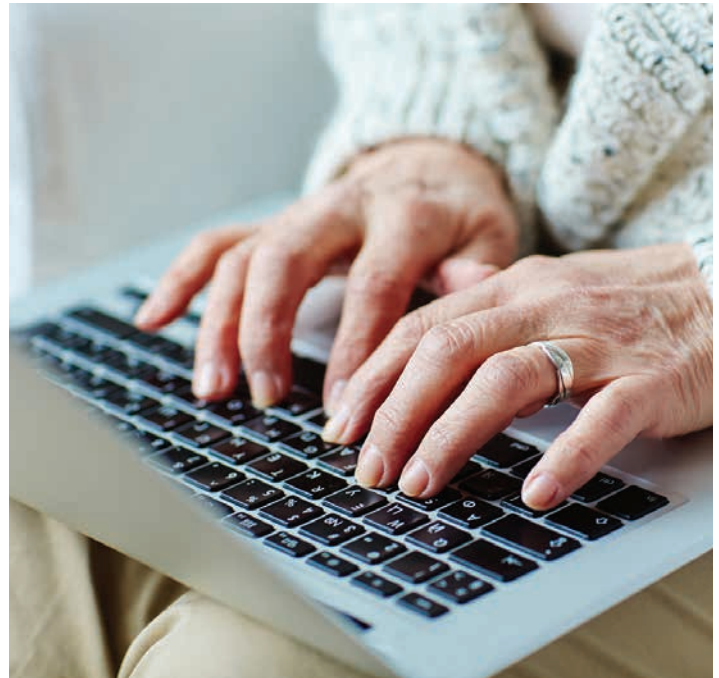


# New ways to communicate moving forward

After your total laryngectomy, you have several options for communicating with others. Your healthcare team will help you decide which option is most appropriate for you.

## Writing or typing

You may have found writing or typing the easiest way to communicate right after your surgery. You could decide that you want to continue using this method. Options include pen and paper, a small dry erase board, or technology for typing or texting. Some smart phones or tablets have text-to-speech options available, too.



## Esophageal speech

Esophageal (*EE-sof-ah-JEE-ahl*) speech is a method of communication that involves creating vibration in the esophagus, pharynx (*FAIR-inks*), or throat to make sound. Air is pulled or trapped in your pharynx, then shaped into speech by your throat and mouth as it is released. If you are interested in this option, talk to a speech-language pathologist or your healthcare team to learn how to use this method.



## Electrolarynx (or artificial larynx)

You may decide to continue to use an electrolarynx. This artificial larynx, is a small, battery-operated electronic device that creates sound by vibration. When the electrolarynx is placed against the outside of your neck or used with an oral adapter, this vibrating sound can be formed into speech with the tongue, teeth, palate, and lips.

You may have started using an electrolarynx with an oral adapter just after your surgery. Your surgeon will let you know when your neck has healed enough to use an electrolarynx against it.

## Tips for communicating with an electrolarynx

### Do:

- Make sure that the electrolarynx head is in full contact with your skin to ensure adequate sound transmission. Otherwise, if a portion of the electrolarynx head is not in full contact with skin, you may hear an unpleasant buzzing noise.
- Gain the attention of your listener before you speak. If possible, face them when speaking. Seeing your lips when you speak can help your listener understand you better.
- Speak slowly and overarticulate your speech by exaggerating your mouth movements. Certain sounds, such as “p,” “t,” and “k,” may be hard to understand. Consider practicing these sounds by themselves.
- Find the best placement for the electrolarynx. Try the cheek as well as the neck, and try placing the device at different angles. There will likely be a “sweet spot” that produces the best sounds. If you are getting frustrated

finding this spot, you may want to talk to a speech-language pathologist or your healthcare team.

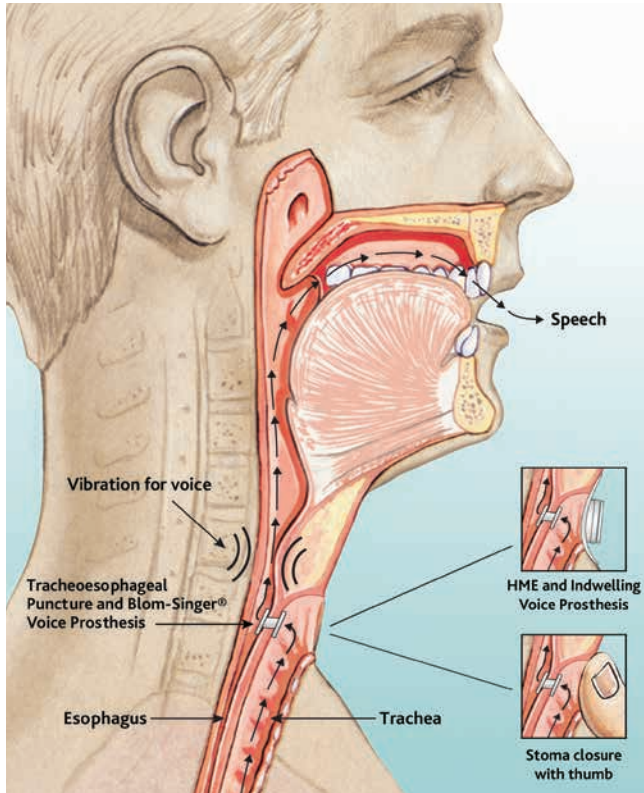
- Practice! The more you practice, the easier this type of communication will be for you and your listeners.

### Don't:

- Be offended if your listener asks you to repeat yourself. It can take a few tries before your listener's ears become accustomed to this type of speech.
- Take breaths or push air with your speech as you previously did. This can be distracting to your listener. Think of only “mouthing” the words.
- Forget to take natural pauses in conversation. Run-on sentences and lengthy speech can be hard for your listener to understand.

## Tracheoesophageal speech

Tracheoesophageal (*TRAY-kee-oh-ee-sof-ah-JEE-ahl*) (TE) speech is a technique that can restore the ability to speak after a total laryngectomy.



This technique requires a surgeon to create a tracheoesophageal puncture, or tract. This is a small surgical passage inside the stoma, extending from the back wall of the trachea into the esophagus.

Once the puncture has been created, a small device called a tracheoesophageal voice prosthesis (TEP) is placed into the passage. This enables airflow from the trachea into the esophagus. The puncture and the placement of the TEP can be done at the same time as the laryngectomy or later on.

You produce voice by covering your stoma so that exhaled air from the lungs is directed from the trachea through the voice prosthesis into the esophagus. You cover your stoma with a finger or with an HME attachment.

Once in the esophagus, the pressurized air causes the tissue in the esophagus to vibrate. This results in voice that the mouth and throat shape into speech.



*Blom-Singer® Classic™ Indwelling Voice Prosthesis—Nonsterile*



*Blom-Singer® Low Pressure Voice Prosthesis*





Mark prepares healthy snacks for an optimal round of golf each week. A proud native of St Louis, Mark underwent a total laryngectomy in 2012 at Barnes-Jewish Hospital – Washington University.

# Taking care of your voice prosthesis



## TEP Leak test

Your TEP is a one-way valve that allows air into the esophagus for voice. But when at rest, it remains closed so that food and drink cannot move into the trachea. For any number of reasons, the valve in the voice prosthesis may not close or seat properly. This results in the leakage of food or, more likely, liquids. The leakage may cause coughing in some people, but not everyone. The best way to assess if your prosthesis is leaking is by careful observation.<sup>6</sup>

You can test for leakage by following six steps:

***This should not be completed until your healthcare team has given you clearance to take food or liquid by mouth.***

### TEP LEAK TEST: STEPS

1. Stand in front of a well-lit mirror and look closely at your prosthesis.
2. Take a small sip of liquid.
3. Examine the prosthesis to see if any amount of liquid comes through the middle or around the sides of the prosthesis.
4. If you notice a leak, you may want to clean the voice prosthesis to see if the leakage stops. Dried matter can prevent the valve from closing adequately. Be sure to use only the cleaning devices provided with the prosthesis.
5. Re-test to ensure that there is no leakage.
6. If you have concerns about the wear time of your prosthesis, please speak to your healthcare provider, if you are concerned about your InHealth product please contact [complaints@inhealth.com](mailto:complaints@inhealth.com)

## Voice prosthesis dislodgement

*Blom-Singer® Tracheoesophageal  
Puncture Dilator (BE 6050)*

While it does not happen often, your voice prosthesis can come out of place for a number of reasons, such as coughing, cleaning your prosthesis or inserting a laryngectomy tube. Also, without the prosthesis in place, the tract where the prosthesis sits is at risk of closing. Without a prosthesis in the tract, food or drink could enter into your lungs through the open puncture. This is called aspiration.



Your healthcare team may teach you how to manage this situation by placing a dilator or red rubber catheter in the tract. This prevents it from closing and also reduces the possibility of food or drink entering your airway/trachea.

While you cannot use your TE speech with the catheter or dilator in place, you are free to go about your normal day-to-day activities, including eating and drinking without aspiration. You can keep the catheter or dilator in place until you can get to your clinic to have your voice prosthesis replaced.

You should not place anything in your puncture tract that is not provided to you by your healthcare team.<sup>7</sup> They will make sure that you receive the correct size catheter or dilator (although a smaller diameter usually eases insertion).

Below is a suggested procedure for inserting a dilator or catheter into your prosthesis tract. However, you should always follow the directions your healthcare provider gives if they are different.

### 5 STEPS TO PLACE A DILATOR OR RED RUBBER CATHETER

1. Looking at the stoma, find the small hole where your voice prosthesis previously sat.
2. Lubricate the dilator or catheter and gently insert the end of it into the hole.
3. Continue inserting the dilator until it is fully inserted, or inserting the catheter until only 3-4 inches remain.
4. Tape the end of the dilator or catheter to the side of your neck.
5. Make an appointment with your clinic to place a new voice prosthesis. If you have the dislodged catheter, save it and bring it to your appointment.

If at any time you feel short of breath or think the prosthesis has fallen into your airway, or if you cannot find your dislodged prosthesis, seek immediate medical attention.

***When in doubt, go to the emergency room.***



# Looking ahead with confidence

The information in this booklet is meant to help you adjust to life after a total laryngectomy and feel confident about your future. Your healthcare team, family, and friends can provide a strong support network as well. If you have questions, need more information, or are looking for additional support, do not hesitate to reach out to the following resources.

## Resources

*American Academy of Otolaryngology—Head and Neck Surgery (AAO-HNS)*  
[www.entnet.org](http://www.entnet.org)

*American Cancer Society® (ACS)*  
[www.cancer.org](http://www.cancer.org)

*InHealth Technologies®*  
[www.inhealth.com](http://www.inhealth.com)

*International Association of Laryngectomees (IAL)*  
[www.theial.com](http://www.theial.com)

*National Cancer Institute (NCI)*  
[www.cancer.gov](http://www.cancer.gov)

*WebWhispers*  
[www.webwhispers.org](http://www.webwhispers.org)



Mike is an avid body builder and has been dedicated to his health for many years.







# New Patient Instructions

Would you like to order products and accessories directly from InHealth Technologies®?  
Enrolling as a new patient is easy! Here is what to do:

1. For any supplies that require a prescription, obtain a prescription from your provider. Our prescription form is available under the FORMS tab at [www.inhealth.com](http://www.inhealth.com).
2. Fill out the Client/Patient Information Form, also available under the FORMS tab at [www.inhealth.com](http://www.inhealth.com).
3. Send the completed form back to InHealth Technologies® with a copy of your insurance card (front and back). You can send via email: [medicare@inhealth.com](mailto:medicare@inhealth.com) or fax: **734-354-5757**
4. **Place your order by phone or via our webstore!** Please remember that a prescription alone will not automatically generate an order.

## Need insurance or Medicare help? Contact us!

**Phone: 800.477.5969 option 3**

**Email: [medicare@inhealth.com](mailto:medicare@inhealth.com)**

We can directly bill Medicare so you need pay only your copay portion. For more information on Medicare assignment, look under the Resources tab at [www.inhealth.com](http://www.inhealth.com).

We encourage you to review the Client/Patient Bill of Rights under FORMS at [www.inhealth.com](http://www.inhealth.com).

### References:

1. Ackerstaff AH, Hilgers FJM, Balm AJM, Van Zandwijk N. Long-term pulmonary function after total laryngectomy. *Clin Otolaryngol*. 1995;20:547-551.
2. Lewin JS, Lemon J, Bishop-Leone JK, Leyk S, Martin JW, Gillenwater AM. Experience with Barton button and peristomal breathing valve attachments for hands-free tracheoesophageal speech. *Head & Neck*. 2000;22(2):142-148.
3. Medical Innovations International Inc. Rochester Barton Button Information, [www.bartonbutton.com](http://www.bartonbutton.com). Accessed December 19, 2018.
4. Barton Trachostoma Button Instructions for Use. Medical Innovations International Inc.
5. Garg S, Kozin E, Deschler DG. Care of the post-laryngectomy stoma # 281. *J Palliat Med*. 2014;17(7):857-858.
6. Acton LM, Ross DA, Sasaki CT, Leder SB. Investigation of tracheoesophageal voice prosthesis leakage patterns: Patient's self-report versus clinician's confirmation. *Head & Neck*. 2008;30(5):618-621.
7. Instructions adapted with permission from the UC Davis training information: [www.ucdmc.ucdavis.edu/otolaryngology/Health%20Information/Tep.pdf](http://www.ucdmc.ucdavis.edu/otolaryngology/Health%20Information/Tep.pdf). Accessed December 19, 2018.

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**United States**  
1110 Mark Ave., Carpinteria, CA 93013  
Toll-Free: 800.477.5969  
Toll-Free Fax: 888.371.1530

**International**  
Tel: +1.805.684.9337  
Fax: +1.805.684.8594  
E-mail: [order@inhealth.com](mailto:order@inhealth.com)

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