

Who we are

At Atos Medical, we are committed to giving a voice to people who breathe through a stoma, with design solutions and technologies built on decades of experience and a deep understanding of our users.

Since the introduction of the first Provox voice prosthesis in 1990, Atos Medical has become the world leader in Laryngectomy Care.

Our commitment and dedicated specialization in this field has allowed us to gain a deep understanding of the needs of our customers. This understanding drives our innovation process and we take pride in continuously bringing innovative solutions to our users.

Over the years we have served the needs of around 100,000 people with laryngectomy in over 70 countries. Our comprehensive Laryngectomy Care portfolio includes a complete range of Provox voice and pulmonary rehabilitation devices. This broad range of high quality Provox products allows for a personalized combination of solutions for each user.

Atos Medical understands that being the leader in this field comprises more than product development. Supporting clinical research and educating both professionals and users is an integral part of our business. Our products are featured in over 150 peer-reviewed publications. We support and conduct hundreds of conferences and educational programs every year.

We are proud of our history and our accomplishments and we continue to be excited by learning from our users; serving them with the best products, services, and education in Laryngectomy Care.

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Part one

What is a total laryngectomy?

Undergoing a total laryngectomy can be overwhelming and lead to some major changes in the way you live. But you're not alone. More than 100,000 people around the world have been through the same thing, and many of them have found ways to help them speak, breathe well and make life easier.

A total laryngectomy is a surgery performed in the advanced stages of cancer. The procedure involves removing your voice box – also called the larynx. The larynx plays several important roles. It houses the vocal folds that make our voice sound. The larynx also helps us to breathe and swallow. Therefore, removal of the voice box not only leads to changes in the voice, it also changes the way you breathe, swallow and smell.

Going through a total laryngectomy means breathing through a stoma instead of your nose and mouth, and having to learn how to speak again.

One of the biggest changes after a total laryngectomy is losing your vocal cords. This means you won't be able to speak as you could before, but there are proven ways to regain the power of your speech.

Another big change is the loss of nasal function. This means you will have to adjust to a different way of breathing because you can't use your nose any more. You may not realize it, but your nose does more than just smell. It plays a huge role in keeping your lungs healthy and working well. Without the nose, air is cooler and less moist than it should be, causing your lungs to produce more mucus. Luckily, Heat and Moisture Exchangers (HMEs) have been designed to help your lungs by conditioning the air you breathe in and in this way do what the upper airways used to do.

While a laryngectomy does spell changes in your day-to-day life, it is still possible to be happy and fulfilled. You can continue to be active by going for walks and exercising, or see friends and do most other things you enjoyed before the procedure.

Before total laryngectomy

Vocal cords

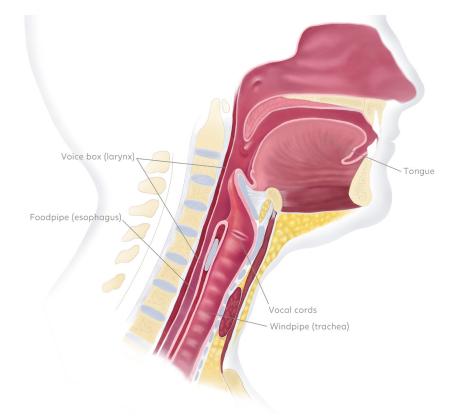
The vocal cords are folds of tissue in the throat that vibrate in the airstream to produce the voice.

Foodpipe

The foodpipe is the tube that takes food from the back of the mouth to the stomach.

Windpipe

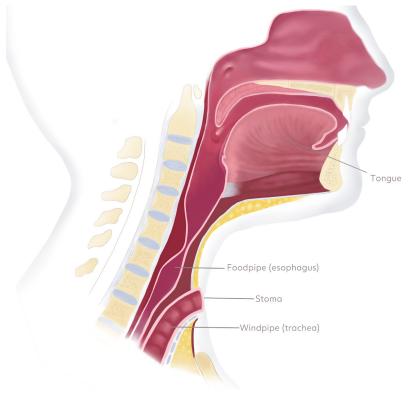
The windpipe is the air passage from the throat to the lungs.



After total laryngectomy

Stoma

The stoma is a permanent opening in the neck, connected to the windpipe.





Part two

A different way of speaking

Your voice is a big part of your identity – it's how you express your thoughts, feelings and ideas. A laryngectomy will change your voice. Without a voice box, you can't speak as you could before. But there are ways to get the power of speech back.

Before a laryngectomy, your voice is produced by vocal cords located within the larynx. These vocal cords are the source of natural voice. During exhalation, the air passes the vocal cords, which produce sound through a rhythmic opening and closing.

A laryngectomy removes your larynx and vocal cords, so the way you speak is obviously going to change. But there are ways to get the power of speech back. Your clinician may have taken you through the options, including esophageal voice, electrolarynx, and using a voice prosthesis. Speaking with a voice prosthesis is the most popular method; it's also the most natural and fluent.

Your voice will sound different than it did before, because it is no longer coming from your vocal cords. With esophageal speech and speaking with a voice prosthesis, your voice source will be located in your foodpipe instead.

Your speech therapist will help you to train your voice and will give you exercises that will make your new speaking style as clear as possible. It might be a steep learning curve, but you might soon master your new voice.



Speaking with a voice prosthesis

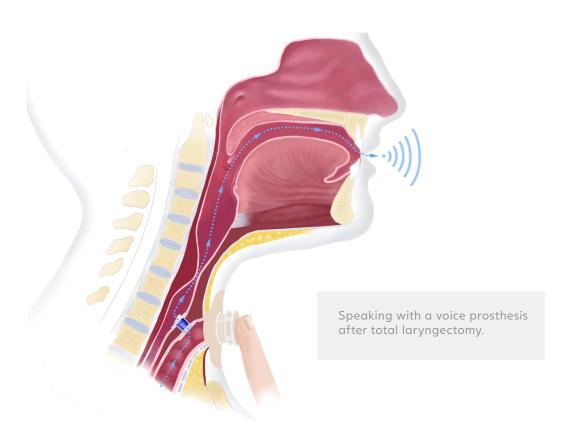
Chances are you've heard a lot about speaking with a voice prosthesis, but why do people think it's the best way to go after a laryngectomy? We'll let you be the judge.

A voice prosthesis is a small plastic device that in most cases will be inserted during your laryngectomy, or shortly after. It's placed between your food pipe ('esophagus') and windpipe ('trachea'), with two 'flanges' on either side to keep it in place. Between these flanges there is a smaller tube which contains a one-way valve. This valve opens while you speak, and it closes when you eat or breathe to prevent anything from entering your windpipe that shouldn't – like saliva, food or drink. Blocking your stoma with a finger will redirect the air you breathe out through your voice prosthesis and into the food pipe. As this air travels through your food pipe, the tissues will vibrate and create a sound. This is what we call 'tracheoesophageal (TE) speech.'

These days, tracheoesophageal speech has proven to be the most successful way of speaking again after a laryngectomy.

Advantages:

- Superior voice quality and clarity
- · Relatively quick and easy to learn
- Functional speech can usually be achieved in a matter of weeks



Speaking with an electrolarynx

Many people rely on the electrolarynx as a back-up to speaking with a voice prosthesis. It does produce a different sort of voice, but with the right attitude towards training and remembering a few important rules, you'll find a way to make it work for you.

Advantages:

- The electrolarynx is a popular choice right after surgery or as a back-up to speaking with a voice prosthesis
- It has a vibrating head that you press against your neck to vocalize
- You might benefit from the convenience it has to offer, but be aware that it adds a metallic tone to your voice, so you will still need to speak slowly and clearly for the best results.

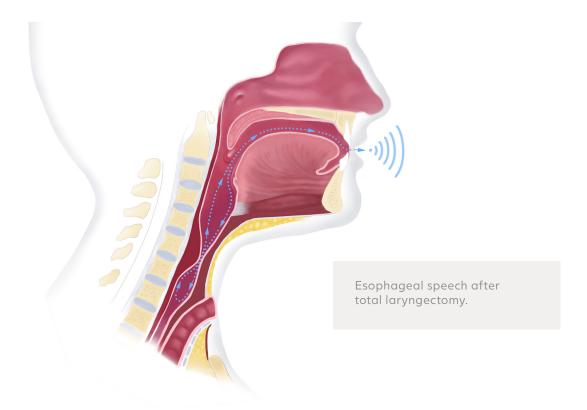


Esophageal speech

Esophageal speech used to be the go-to speaking method after a laryngectomy, before the voice prosthesis was developed. This method of voicing uses the body's natural tissues as the new voice source. You have to swallow small amounts of air before pushing them back up as small "burps." The swallowed air causes the food pipe to vibrate, producing the sounds that go on to be shaped by the lips and tongue to create words. Esophageal speech is the oldest and also the most difficult to learn. Only 1 in 3 people attempting this technique will be able to do it – and often, their speech is limited to short sentences. You should discuss with your speech pathologist if esophageal speech would be a good option for you.

Advantages:

- Non-surgical method
- · Allows for hands-free speech.



Speaking with confidence

To speak with confidence, you need a voice prosthesis that is durable, easy to speak with, easy to maintain, and provides the best possible voice quality. In short, one that you can trust and rely on.

Provox offers a complete range of voice prostheses and accessories.

Provox® Vega™

Confidence to speak more naturally



Provox Vega is a voice prosthesis used by thousands of people who have undergone a laryngectomy. It is known for being a robust, durable and reliable device, which is easy to maintain.

It is designed with an opening pressure that supports a good seal when swallowing, as well as airflow characteristics that are optimized for speaking. Most users chose the Provox Vega as their preferred voice prosthesis. They say it is closest to the natural way of speaking in terms of fluency and phrasing.

Provox® ActiValve®

Extended device lifetime



Provox ActiValve is primarily designed for users who experience that their voice prostheses start leaking through the prosthesis early. The blue fluoroplastic material of the valve will extend the device life as biofilm cannot grow into it. And the prosthesis is closed with magnets which prevents it from opening inadvertently when breathing or swallowing.

Provox® XtraSeal™

Confidence to eat and drink without leakage



Provox Vega XtraSeal combines the benefits of the Provox Vega with a solution to manage leakage around the voice prosthesis.

It is designed for users that experience leakage around the voice prosthesis due to enlarged punctures. Essentially, it is a Provox Vega with an additional, enlarged esophageal flange, which is thin, concave and very flexible, so it conforms to the tissue around the puncture. The benefit is that users can speak, eat and drink while the leakage is managed.



Taking care of your voice prosthesis

Having a good maintenance routine for your voice prosthesis is crucial. Just as you would brush your teeth, you should brush and flush your voice prosthesis at least twice a day. This will help keep your voice prosthesis clear of debris that can cause leakage.

The backside of your voice prosthesis is located in your throat's esophagus where food, drinks and saliva are being swallowed all the time. Your throat is also full of bacteria that will gradually get stuck onto your voice prosthesis. Over time, this bacteria will make your voice prosthesis leak. By cleaning it every day, you will slow down this process and your voice prosthesis can last longer.

We recommend cleaning your voice prosthesis in the morning, in the evening and after every meal, using Provox Brush and Provox Flush.

Provox® Brush

For cleaning of the voice prosthesis



How to use the brush

- Moisten the bristles of Provox Brush and then insert all the way through the voice prosthesis.
- · Gently move the brush back and forth while rotating the brush.
- Remember to replace your brush once a month, or earlier if the bristles look worn and overused.

Provox® Flush

For flushing after brushing



How to use the flush

- Use Provox Flush with drinking water or air.
- If you're planning to use drinking water, squeeze the ball to fill it up with liquid.
- Insert the tip into your voice prosthesis, while making sure it is properly sealed.
- Gently squeeze the air or water into your prosthesis.

Provox® Vega™ Plug

A first-aid to temporarily stop leakage through the voice prosthesis.





Part three

Breathing before and after a laryngectomy

Lungs are vital organs. They are responsible for ventilation, providing oxygen to your body from the air you breathe in, and releasing carbon dioxide to the air you breathe out.

Before surgery, you would breathe through your nose, mouth and throat – or what's known as the 'upper airways.' These upper airways (in particular the nose) condition the air you breathe by warming up, humidifying and filtering it because your lungs need conditioned air to work properly. Since a laryngectomy will disconnect your upper airways; it will affect your lung function.

After your laryngectomy, you will breathe through a stoma in your neck. This means the air you breathe in won't be humidified or heated by the time it makes it to your windpipe and lungs. This sort of 'unconditioned air' will be too dry and cold for your lungs, and may potentially lead to more mucus, coughing and a higher risk of airway infections.

Luckily, Heat and Moisture Exchangers (HMEs) have been designed to help your lungs by warming up and humidifying the air you breathe in and in this way do what the upper airways used to do.

A better way to breathe

Your nose, mouth and throat work hard to warm up and humidify the air you breathe. After a laryngectomy, Heat and Moisture Exchangers will do this for you.

An HME sits over your stoma and you breathe through it. It warms up the air and makes it more moist. It does this by 'catching' the heat and humidity of the air as you breathe out, then passes it on to the air when you breathe in. In other words, an HME 'conditions' the air you breathe by keeping it at a good humidity and temperature for your lungs to function properly.

Many people find that wearing an HME all the time can help them live a better life and go back to doing many of the things they did before their surgery. This is because an HME helps them produce less mucus, cough less, feel less irritation in their windpipe, and breathe more easily.

There are different types of HMEs specially designed to work better in different situations. On the next pages you'll find a quick overview of the different situations where you might use them.

Being active



'Active' means different things to different people. It might mean going for a walk. If you're a keen gardener, it might mean spending time outdoors working in the fresh air. Or it could be when you're out socializing or going to the shops.



Provox® XtraFlow™ HME

Provox XtraFlow HME makes breathing easier when you're physically active because the foam inside has larger holes or 'openings'.

Relaxing



You're not always on the go. Sometimes you want to relax and take things a bit easier. That might be when you first get up, starting the day with a cup of coffee and reading the newspaper. Or perhaps as you're cooking, reading or watching TV. You might have visitors over – maybe friends stopping by to say hello.



Provox® XtraMoist™ HME

Provox XtraMoist HME can help in all these situations, making sure you breathe comfortably, cough less, and speak more easily. This HME keeps the air you breathe especially humid. The foam has smaller holes or 'openings,' which means it's able to trap more heat and moisture.

Speaking hands-free



Speaking hands-free is a desire shared by everyone who has gone through a laryngectomy. With your hands free to make gestures, talking to people will feel more familiar. And when doing everyday things like cooking and being with other people, it is nice to talk without having to occlude your stoma with your finger. Many have said that speaking hands-free feels more like life before the surgery.



Provox® FreeHands FlexiVoice™

With Provox FreeHands FlexiVoice you can speak hands-free or with finger occlusion when wanted. Physical activities like cycling or going to the gym are also less complicated. You can simply change from speaking mode to breathing mode.

Going out



When you're out and about, you may find yourself in busier or more crowded places. Perhaps you're travelling on buses or trains, picking up children from school, or browsing in busy shops. We've created a special product for these situations.

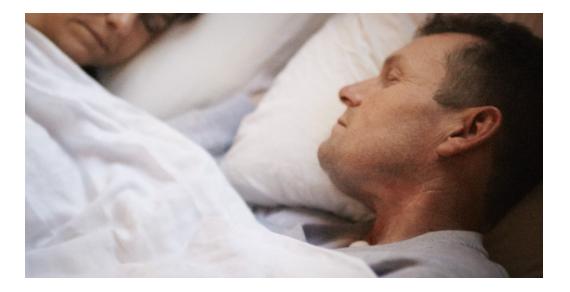


Provox® Micron HME™

Provox Micron HME, designed to help you stay healthy and protected from viruses, bacteria and dust, especially during the flu season. And when you're working in the garden, it can filter out pollen.

Please note that the Provox Micron filtration capacity may vary depending on the size, shape and speed of airborne particles. Since there are other pathways for pathogens to enter your body, our Provox Micron cannot guarantee total protection.

Sleeping



What you wear when you go to sleep is usually soft and comfortable. When it comes to your stoma, your products should also be as comfortable as possible. Nothing should get in the way of a good night's sleep. A good night's sleep will help you have a better day. So, before you go to bed, we recommend switching to Provox Luna.



Provox® Luna®

Provox Luna HME is soft and smooth and very different from a regular daytime HME. It helps you sleep comfortably and wake up rested in the morning. It provides excellent humidification, to help prepare your lungs for the day. And it has a low breathing resistance for comfortable breathing when you sleep. Using an HME all the time may already improve your lung health in just a few weeks - and you may experience reduced coughing and mucus even sooner.

Provox® Luna® ShowerAid & Provox® Luna® Adhesive Strip

When showering, use the Provox® Luna® ShowerAid and protect the Provox® Luna® Adhesive with the Provox® Adhesive Strip™.





- "I have never slept so well in the past 12 years, and never experienced before the positive effect Luna has on mucus."
 - Provox Luna user, England

Attaching an HME

Provox® Adhesives

An adhesive is the most common and comfortable way to attach an HME in front of your stoma. Simply apply the adhesive around the stoma, following the instructions carefully, and attach an HME to it.

There are different types of adhesive depending on what you're doing and how sensitive your skin is. Just like an HME, you'll find that adhesives can take some time getting used to.

Adhesives take a bit of practice

As you're learning how to use adhesives, you might need to replace them a little more often at the start. You might also find that you're producing more mucus, which makes it trickier to keep the adhesive stuck in place. Your goal should be to have the same adhesive stuck on for a whole day – morning to evening. It's important that the adhesive fits the stoma. So first, determine the best fit by positioning the adhesive while the liner is still on. Then take off the liner and place it in the right position. Put the adhesive ring just below the stoma, then apply the rest of it. Keep the ring as close to the stoma as possible. Work from the inside out, thoroughly massaging the adhesive onto the skin. Don't leave any air gaps, bubbles or wrinkles.

Adhesives work better if they're kept clean

It's important to keep your stoma and the adhesive free of mucus. If you get mucus stuck between your adhesive and skin, it can stop the adhesive from sticking well.

If you need to cough, carefully remove the HME, cough into a tissue, and then clean your stoma and adhesive. After you cough, carefully clean your stoma. Pay attention to the lower part of your stoma. If there's mucus between your skin and your adhesive, it'll cause leakage. On the next page you'll find an overview of the different adhesives.



Clean the skin around your stoma with Provox Cleaning Towel, or with soap and water. Let it dry.



Apply the middle part as closely as possible to your stoma. If you need make it fit the stoma shape, turn it clockwise. Massage the adhesive onto your skin.



Peel off one of the outer liners and massage onto the skin. Do the same on the other side.



Massage the whole adhesive firmly onto your skin.

Provox® FlexiDerm™

Provox FlexiDerm is a good option when your skin is properly healed. It is a soft and flexible adhesive that can be adjusted to fit the shape of your stoma, without losing any of its adhesive properties.



Provox® OptiDerm™

Provox OptiDerm is less sticky compared to our other adhesives and is made of a material that is gentle to the skin. It is a good choice directly after surgery or radiotherapy and if you have sensitive or irritated skin.



Provox® StabiliBase™

Provox StabiliBase is well suited to hands-free speech. It is appreciated for its stability during speaking and by people with deeper stomas. When you are speaking a lot, you may need something that sticks and fits better, as the pressure will be higher.



Provox® XtraBase®

An adhesive for a flat or somewhat deeper stoma. Sticks well to the skin. For speaking with finger occlusion or hands-free.



Provox® Luna®

Provox Luna Adhesive is specially designed to wear when you go to bed. It is made of hydrogel, which is widely used in skin and wound care. The hydrogel has been proven to have cooling and soothing effects. Use it to sleep comfortably and soothe your skin.



Provox® LaryTube™ and Provox® LaryButton™

Maybe your clinician has recommended you to use Provox LaryTube or Provox LaryButton to attach an HME instead.

Provox LaryTube

Provox LaryTube is a flexible silicone tube (or 'cannula') and keeps the HME in front of your stoma, while making sure your stoma maintains its size and shape.

Make sure the end of the LaryTube does not 'hook' onto your prosthesis during insertion or removal and cause it to move. You should call your doctor right away if you experience any sort of irritation from the tube, or if you feel a tightness in your throat. This could mean the tube has become too large or too small, and you may need a different size.



Provox LaryButton

The shape of your stoma will determine if you can use a LaryButton. It should fit comfortably without causing any irritation or discomfort – you should always consult your doctor before using one.

Wearing a Provox LaryButton for the first time can feel quite strange. If you are finding it difficult, try wearing it for as long as you can and then taking it off. Keep track of how long you are able to wear it, and slowly increase the number of hours as you go. Soon, you won't notice your LaryButton and it will become a practical, comfortable attachment to your HME.





Taking care of your skin

Your neck tissue is very delicate and can be damaged when you constantly change your adhesives. This is why you should make sure to do it as carefully as possible. It's very important to get into good habits when it comes to looking after the skin around your stoma. If you do, you'll be less likely to get irritated or damaged skin – and the adhesives will stick longer.

Provox® Adhesive Remover

When it comes to removing your adhesive, Provox Adhesive Remover is always helpful. Make sure to soak the top of your adhesive, then use the remover to wipe along the edge of your adhesive and gently push it away.



Provox® Cleaning Towel

After taking off the adhesive, you should clean the skin around your stoma with soap and water, or a Provox Cleaning Towel. The aim is to remove any oil- and sticky adhesive residues.



Provox® Skin Barrier

If your skin is sensitive, Provox Skin Barrier can help. It leaves a protective layer on the skin. Use it after cleaning the skin, but before putting on the daytime adhesive. Always remember to massage the adhesive before you apply it to improve the stickiness. Do not use skin barrier when using Provox Luna.



Provox® ShowerAid

Provox ShowerAid keeps water out of your stoma when you shower, while allowing you to breathe as usual. Make sure the adhesive has a good seal and then attach it just like your HME. You can now enjoy a shower without having to worry about water entering your stoma. Note, however, the ShowerAid is made specifically to protect you during showering, it is not intended for swimming.



Getting back to life

There is no doubt that your cancer diagnosis, the treatment you have gone through and the total laryngectomy has had a significant impact on your life. Now it is time to look ahead and pick up life again. Thousands of people with laryngectomy are living witnesses that a fulfilling life is waiting for you if you embrace it.

"The patients that go on to live a normal life don't use the laryngectomy as an excuse. Just get out there! Do not be scared of new or old things. I encourage them to try things and its okay if it doesn't work out the first time. We can troubleshoot together. Don't change who you are because you had cancer treatment. It doesn't define you."

- Desireé, US, M.A. CCC-SLP at University of Cincinnati Medical Center

Meet Luciano

Luciano is 70 years old. He was operated in 2003 at Treviso Hospital in Veneto Region. Today he is retired, but he worked as a driving school teacher after his laryngectomy.

What was your biggest concern after surgery?

"I was truly afraid that I would not be able to work again and if I managed to work I was sure my students would be embarrassed to have me as their driving school teacher. This proved to be only in my head. Soon after my operation I started working again and my students were not embarrassed."

What would you tell people with laryngectomy that struggle rehabilitating?

The way I see it everybody has problems. It is all about your attitude and how you face the new situation. Live your life, it is possible. Roll up your sleeves and get out there."

If someone is hesitant to use HMEs. What would you say?

"My clinical support team told me to use HMEs immediately after my operation to improve and speed up my pulmonary rehabilitation. I can only say that following the clinical guidelines for HME use, it will help you in rehabilitating better and faster. I have a hobby, which is carpentry. Here the HME has also helped me to keep doing this."

How does Atos Medical support you?

"Atos Medical has always been very supportive. Today I am the vice president of the regional support club here in Veneto region. I have always wanted to give back to other patients and Atos Medical has helped me all along the way."

Have you changed any habits after your operation?

"Actually no. I have closed that chapter. I do not smoke anymore. I still travel as much as I did before and enjoy life fully!"





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Below you will find all our global addresses and contact information. Find your country and reach out to us. We are always here to help you.



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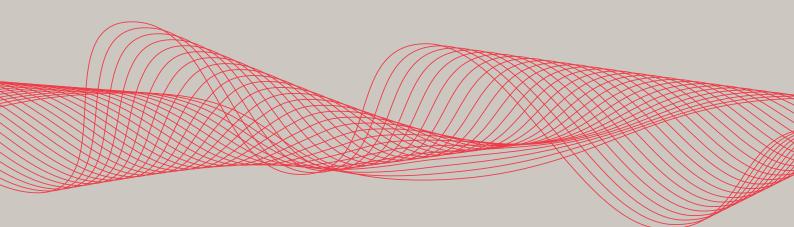
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At Atos Medical, we are committed to giving a voice to people who breathe through a stoma, with design solutions and technologies built on decades of experience and deep understanding of our users.

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