

A new tracheostomy: Information for family and carers



▶ **WHAT IS A "TRACHY"?**

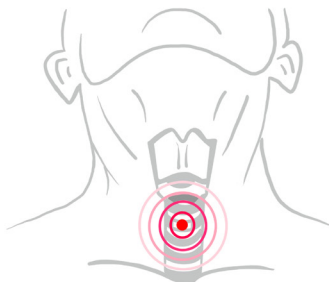
A tracheostomy, or "trachy" is a small plastic tube inserted into the front of the neck to help someone breathe.

▶ **WHAT DOES IT DO?**

A trachy provides an "artificial airway." We normally breathe in and out through our nose and mouth. A trachy is a new, and usually temporary, extra airway.

▶ **WHAT IS IT FOR?**

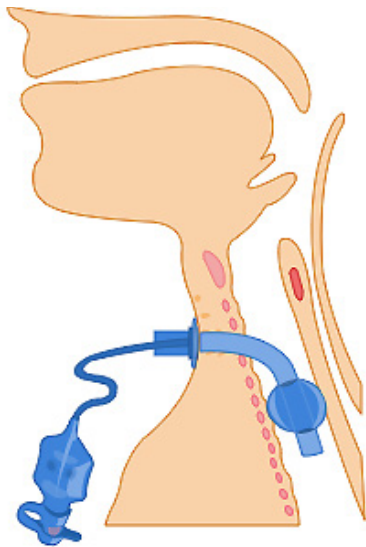
A trachy can bypass blockages in the nose/mouth/throat. A trachy can also connect someone to a ventilator.



NTSP

www.tracheostomy.org.uk

National Tracheostomy Safety Project



THIS LEAFLET HAS BEEN DESIGNED WITH PATIENTS AND FAMILIES TO PROVIDE ESSENTIAL INFORMATION ABOUT A NEW TRACHEOSTOMY. WE HOPE TO COVER COMMON ISSUES, BUT PLEASE ASK YOUR HEALTHCARE TEAM IF YOU STILL HAVE ANY QUESTIONS.

INTRODUCTION: A NEW TRACHEOSTOMY

A tracheostomy is an artificial opening at the front of the neck created by a surgical procedure. The opening goes from the skin down to the windpipe (trachea) to create a passage, called a **stoma**. A small plastic tube is inserted into the stoma to keep the hole open.

The procedure can be carried out by the team at the bedside in the Intensive Care Unit (ICU), or by surgeons in an operating theatre. The choice of technique depends

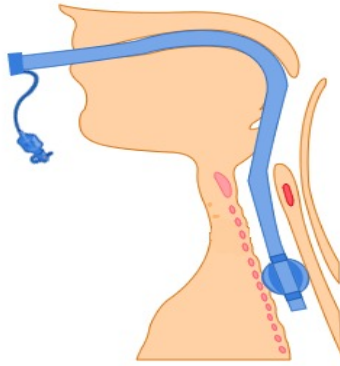
on things like neck anatomy, swelling, how sick the patient is, and whether they are having another operation at the same time.

The diagram above shows a tracheostomy tube and how it sits in the windpipe. The staff can connect the trachy tube to a ventilator (to help with breathing), devices to help coughing (suction catheters and “cough-assist” machines), or masks that deliver oxygen and/or warm, moist air.

The oldest indication for a tracheostomy was because of a blockage in the mouth or throat. This can be caused by cancers, surgery, or inflammation. Soemtimes we use a trachy “just in case” the airway becomes swollen, as a precuation.

The commonest reason for a trachy in a critically ill patient cared for in an ICU is to provide help with breathing via a ventilator as the patient starts to recover.

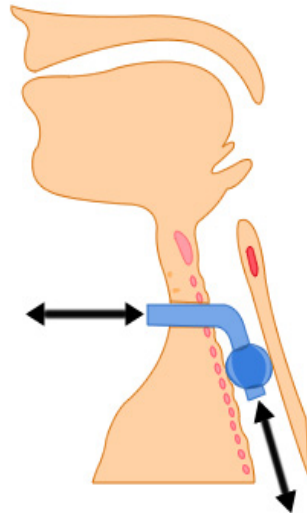
In ICU, if your breathing isn't good enough by itself, a ventilator can provide extra help by blowing gas and oxygen into the lungs. The ventilator needs a connection to the lungs, which is usually provided by a tube that passes through the mouth (or sometimes the nose). You can see a diagram and a picture of the tube passing through the mouth and into the windpipe on the right.



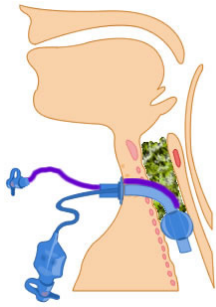
Having a tube in your mouth does not feel nice, and so patients are usually heavily sedated. This means that they are not aware of the tube, and their own urge to breathe is reduced. Leaving a tube in the mouth for a long time can cause problems for the throat, and the build-up of the sedation can mean it takes a long time for patients to wake up.



Although a tracheostomy is an additional procedure, there are some benefits. The most obvious benefit is that sedation can be reduced or stopped, often quite quickly. This means that patients can start to wake up. How much they wake up depends on how ill they have been, how much sedation they needed, how sick they still are, and whether they have any on-going problems with their brain function.



Most new trachy tubes have a balloon at the end. Inflating the balloon makes a seal in the windpipe. This stops secretions and blood falling into the lungs from above. It also creates a seal for the ventilator to deliver the breaths needed to keep the patient breathing. This is a bit like blowing up a balloon (the lungs) with a pump (the ventilator).



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“I DIDN'T LIKE THE SOUND OF THE TRACHEOSTOMY, BUT IT REALLY HELPED BOB RECOVER. IT WAS AMAZING TO SEE HIM AWAKE AFTER ALL THAT TIME.”

“SPEAKING WAS DIFFICULT TO START WITH BUT SHE USED TO WRITE STUFF DOWN AND SHE COULD COMMUNICATE REALLY WELL.”

“I WISH THEY HAD BEEN ABLE TO DO THE TRACHEOSTOMY SOONER.”

“WE WERE ALL WORRIED ABOUT THE PROCEDURE, BUT WHEN IT WAS DONE, HE LOOKED WAY BETTER!”

“IT'S QUITE SCARY WHEN THE DOCTORS TELL YOU THEY NEED A TRACHEOSTOMY, BUT THERE'S REALLY NOT MUCH TO WORRY ABOUT. HE WAS AWAKE QUICKLY AND STARTED HIS RECOVERY”

QUOTES FROM FAMILIES



WHAT PROBLEMS CAN YOU HAVE WITH TRACHEOSTOMIES?

Tracheostomy insertion is generally safe. However, like all medical procedures, there are some risks associated with a tracheostomy. There are problems at the time of insertion, problems afterwards, and some issues that can occur much later.

Insertion problems are related to problems creating the stoma. Sometimes patients are swollen, obese, or their windpipe is hard to identify. Sometimes blood vessels or other structures in the neck are in the way. Usually, these potential problems are identified beforehand and this group of patients have a surgical tracheostomy in an operating theatre. There can be delays waiting for the best time for this to be done, but the doctors will have decided that this is the safest way to insert a tracheostomy, so it is worth the wait.

Bleeding is hard to avoid, but is usually minor and controlled at the time of insertion. There is often some blood staining of secretions

after insertion, which you can see on suction. Often there is a little bleeding from the new stoma too. This is quite normal and settles down within a few days.

More significant bleeding may need special dressings, electrical cauterisation of the area (diathermy) or a return to the operating theatre.

Damage to structures in the neck such as the lungs, larynx (voice box), food pipe (oesophagus), nerves or large blood vessels can occur. Damage like this might require additional procedures such as extra scans or drains.

A new tracheostomy can take some getting used to, especially if it was unplanned and the patient isn't prepared. Waking up and not being able to speak can be really confusing. Staff are on hand to explain and reassure, but it is helpful for family and friends to understand what has happened and explain it all too.

PROBLEMS AFTER INSERTION

Problems after insertion account for the majority of tracheostomy issues. This is usually related to the tube, although infections and bleeding from the stoma can also occur. The trachy tubes need to be carefully looked after to keep them clean and well positioned.

Blocked tubes can occur at any time. The sticky secretions that we have in our lungs are normally kept moving by little hairs in the lungs and windpipe when we are healthy. Secretions are then coughed out or swallowed. A tracheostomy tube affects this normal process in a number of ways. General weakness, or the underlying illness that led to the tracheostomy in the first place, can also affect sputum clearance.

Normally, the air we breathe in is warmed and humidified (moistened) by our nose and upper airways. When the majority of the breathing occurs via the tracheostomy, this humidification mechanism is bypassed. This means that lung secretions are much thicker than normal. Dehydration or lung infections can make secretions worse. Dry, thick secretions are much more likely to block the plastic trachy tube than moist, runny secretions.

Staff will ensure that any air or oxygen delivered via a tracheostomy is humidified (has water vapour added). Sometimes, the gas is heated too. Salt water nebulizers or special medications can be added to help loosen the secretions. Regular physiotherapy and suctioning helps to clear the secretions. Most tubes have an inner cannula (inner tube) that can be removed and cleaned too. All of these measures reduce potential blockages.

Displaced tubes can occur at any time if the trachy tube gets dislodged from the stoma. Sometimes, just moving the tube a little bit can have a big impact on breathing.

Tubes are more likely to get displaced during movement, and patients who are attached to ventilators have extra tubing that is constantly pulling slightly on the trachy tube. The tube is held in place with ties, but these can't be too tight. A little movement of the trachy tube is inevitable.

A displaced tube can be tricky to re-insert, especially if it occurs soon after the original insertion procedure. Re-insertion generally gets easier as the stoma gets older.

Other complications can occur. These include bleeding, infections or crusting around the stoma, or wound breakdown. Sometimes, the windpipe can develop problems on the inside, such as narrowing (stenosis) or a floppy windpipe (tracheomalacia). We often identify problems with the voice box around the time of a tracheostomy. This is usually related to care before the tracheostomy, or problems associated with critical illness. Voice box problems can affect talking, eating and drinking.

It is important to remember that tracheostomies are generally safe. Any potential problems are far outweighed by the potential benefits. Most complications are relatively minor and resolve by themselves, although sometimes, additional procedures are needed. Ask your healthcare team if you have any specific questions.

“IT WAS WIERD SEEING MY SWALLOWING FROM THE INSIDE WITH THE CAMERA UP MY NOSE, BUT IT REALLY HELPED ME TO UNDERSTAND WHY I COULDN’T EAT OR DRINK.”

“THE WHOLE TEAM REALLY LOOKED AFTER ME AND EXPLAINED WHAT WAS HAPPENING WITH MY CARE AT EACH STEP OF THE WAY.”

“I REMEMBER COMING ROUND AND NOT BEING ABLE TO SPEAK AT FIRST. THE STAFF HELPED ME TO WRITE THINGS DOWN AND WERE REALLY PATIENT. I CLEARLY REMEMBER TALKING TO MY FAMILY FOR THE FIRST TIME - EVERYONE WAS WAS CRYING, IN A GOOD WAY!”

“THE THINK I HATED THE MOST WAS THE SUCTION. IT WAS AWFUL. BUT I HAVE TO SAY THAT THE STAFF KEPT EXPLAINING WHY IT WAS IMPORTANT AND I KNEW I COULDN’T COUGH VERY WELL BY MYSELF. IT WAS STILL A MASSIVE RELIEF WHEN THE TUBE CAME OUT!”

QUOTES FROM PATIENTS





**SMALL CAMERAS
CAN ASSESS VOICE
BOX RECOVERY.**

FREQUENTLY ASKED QUESTIONS ABOUT TRACHEOSTOMIES.

The NTSP has been working with healthcare professionals, families and patients since 2009. We have collected together the commonest questions we are asked about new tracheostomies here.

What is the wound like?

The stoma is essentially a wound that is not allowed to heal up by keeping the trachy tube in place. Once the tube has been removed

the tracheostomy stoma can start to heal up. It usually closes by itself. The speed the stoma closes up at will depend on lots of factors, such as: how long the tracheostomy has been there for, how big the stoma was to start with, and how well the patient is.

Will they have a scar?

Some scarring is inevitable, but often it is really hard to see. There are several well known

celebrities that have had tracheostomies and you would never know!

Why can't they talk?

There can be many reasons for this, especially after big surgery or critical illness. The commonest reason is that the balloon at the end of the trachy tube has to remain inflated. This might be to deliver breaths from the ventilator, or to reduce the



COMMUNICATION CAN BE A CHALLENGE, BUT IS USUALLY POSSIBLE.

chance that blood or secretions enter the lungs from above. When the balloon is inflated, no gas passes up and out of the mouth (past the voice box) when you breathe out. Talking isn't possible.

There are lots of techniques we can try to get patients talking, sometimes, even when the cuff is inflated. The team of doctors, nurses, physiotherapists and speech and language therapists will know what to do. Once the patient is well enough to try getting the cuff down, some gas can 'escape' out of the mouth, just like talking. However, the voice is often weak to start with and recovery can be slow.

Why can't they eat or drink?

The tracheostomy tube interferes with swallowing, but there are lots of other potential problems that might make eating and drinking risky. The team are trying to avoid food and liquid entering the lungs, as this can lead to serious lung infections.

Speech and language therapists are experts at helping patients recover. They will often have a look at the function of the voice box and swallowing with a special camera. The procedure is called a FEES (see the picture on page 6).

This can tell us whether it is safe or not to start eating or drinking. Safety is always the priority, and even though it can seem cruel stopping someone having a drink, it will help them get better faster.

Will the tube come out?

Most tracheostomies are temporary, but to be removed, the original problem needs to have resolved. This might be recovery after a neck or mouth operation, reduction in swelling, or recovery of breathing so that a ventilator is no longer needed. Some tracheostomies are permanent.

Make any notes, or write questions for your team here.

WHAT IF I HAVE MORE QUESTIONS ABOUT TRACHEOSTOMIES? WHO CAN HELP ME?

There is lots of information you can find on the internet. Most of it is good, but some can be misleading.

The **National Tracheostomy Safety Project** produces high-quality resources with patient, families and healthcare staff. You can find the answers to lots of questions on the NTSP website, along with videos that explain common issues with tracheostomies.

It takes a big team to care for someone with a tracheostomy, especially when it is new. There will be specialist nurses, physiotherapists, speech and language therapists, respiratory therapists, dieticians, occupational therapists and specialist medical teams who may need to get involved.

Ask your bedside nurse or doctor if you have any questions, and use the space above to write anything down that you want to ask.

All patients are very different and treatment and recovery times will vary, sometimes a lot. Not all staff are experts in tracheostomy care but there is always help available.

www.tracheostomy.org.uk





NATIONAL TRACHEOSTOMY SAFETY PROJECT

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