

SECRETION MANAGEMENT

For various reasons, tracheotomised as well as laryngectomised patients generally have a limited cough output. At the same time, there is often increased secretion in the respiratory tract. The mechanical stimulus of the tracheostomy tube on its own, but also physiological causes, can change and increase secretion production. This constellation makes effective secretion management necessary to avoid sequelae such as infections of the lower airways, more difficult decannulation

or even problems during weaning from ventilation. The choice of tracheostomy tube, e.g. with an internal cannula system, is crucial for good secretion management. Low effort requirements and easy handling ensure safe care, high comfort and reduce stress for the patients. Of course, additional measures such as physiotherapy, respiratory therapy, special positioning, professional percussion, inhalations and additional breathing aids are helpful.



ENDOTRACHEAL SUCTIONING

After a tracheotomy or laryngectomy, the trachea is particularly affected by consequential changes. The so-called ciliated epithelium - the cilia - is of great importance for respiratory function. These cilia sit on the mucous membrane of the trachea and with their regular movements ensure that undesirable particles are transported towards the mouth to be eliminated via the gastrointestinal tract.

This process can also be described as a self-cleaning mechanism of the airways. However, the aforementioned cilia can only maintain their function under certain general conditions. At least 21 - 22 °C and 50 - 55 % relative humidity are necessary to provide functionality. In addition, other factors can also seriously disrupt cilia activity.

Triggers for disturbances of the ciliated epithelium function can include smoking, cold or low humidity.

Increased secretion production with increased coughing, resulting in interrupted sleep and consequently reduced performance often occur. Endotracheal suctioning consequently plays an important role in patient care.

Professional suction management finds the right balance between indication and implementation according to needs as well as resource-oriented activation of self-cleansing processes. Medical aids such as artificial noses (HMEs), which can mimic lost functions of the nose, are a necessary part of the care of tracheotomised and laryngectomised patients. Nevertheless, endotracheal suctioning forms an important supplement to this passive respiratory gas optimisation. For example, an audible or perceptible accumulation of secretions,

increased coughing or unblocking of the tracheostomy tube can lead to a need for suctioning. In general, it is important to strictly check the frequency of suctioning for its necessity.

**"AS OFTEN AS NECESSARY,
AS LITTLE AS POSSIBLE."**

This should be the guiding principle of application in practice. The choice of suction catheter size depends on the internal diameter of the tracheostomy tube or tracheal tube. As a rule, it should correspond to max. half of the inner diameter.

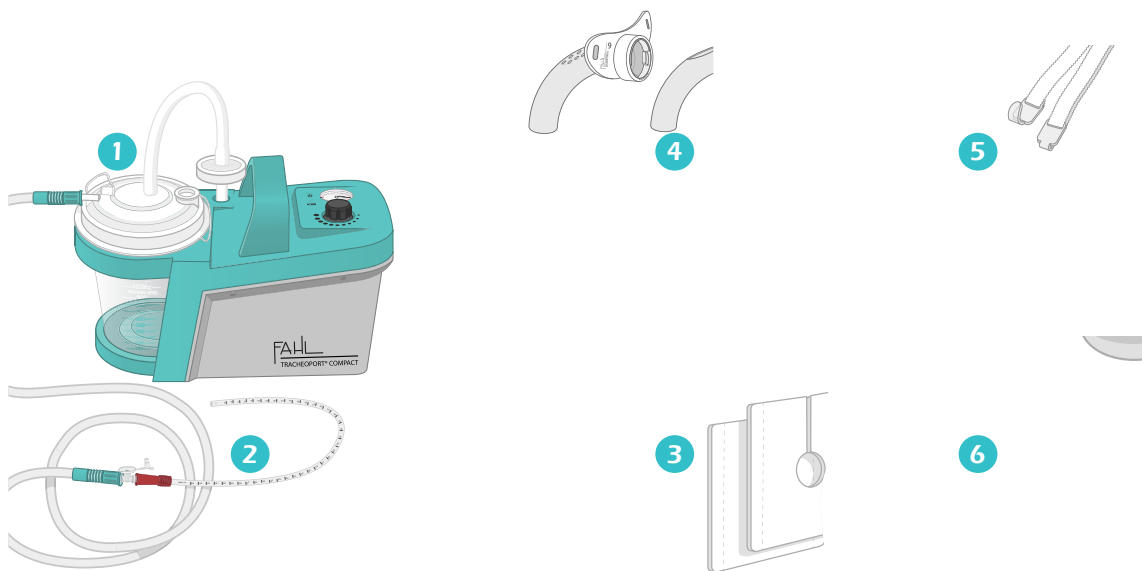
In ventilated patients, it is mandatory to use sterile disposable gloves when performing suction.

In spontaneously breathing patients, pathogen-free disposable medical gloves fulfil the hygienic requirements. Any changes to the current hygiene guidelines must be observed at all times.

The increased production of secretions after a tracheotomy or laryngectomy basically explains why endotracheal suctioning plays a central role in the care of these patients. This makes it all the more important to approach this procedure with the appropriate respect and sense of responsibility. And not only because complications such as cardiac arrhythmias or shortness of breath can occur, but the procedure is also quite stressful for the patient, especially if suctioning is performed by a "stranger". A feeling of being "at the mercy of others" is often described. It is therefore important to inform the patient before each suctioning procedure. Maximum suctioning durations of 10-15 seconds should not be exceeded (tip: holding your breath yourself illustrates the patient's breathing situation).

ENDOTRACHEAL SUCTIONING

PATIENT INSTRUCTIONS



1 SUCTION DEVICE

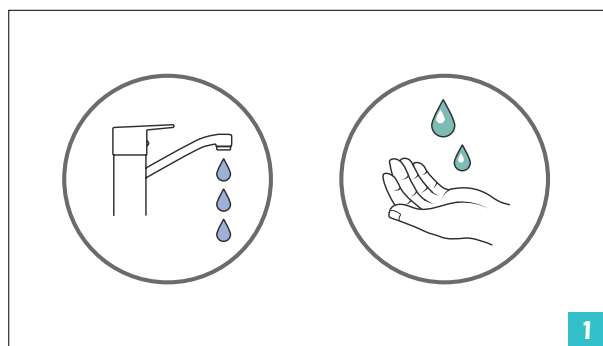
2 SUCTION TUBE

3 SUCTION CATHETER

4 RINSING TANK

5 FINGERTIP

6 SPEAKING VALVE/HME



1



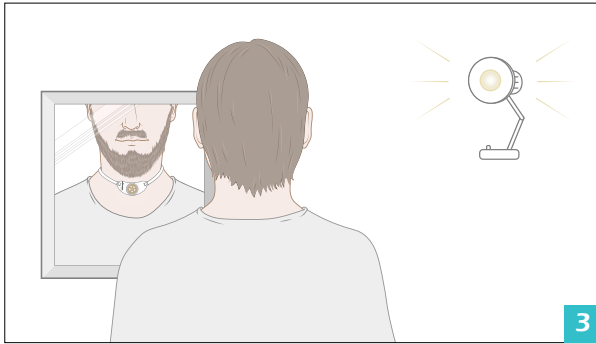
2

First wash your hands thoroughly. Then disinfect them.

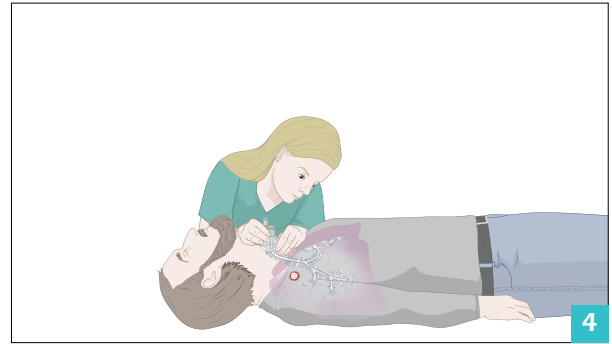
Make sure that the suction device is functional. Connect the suction tube, finger tip and suction catheter correctly.

ENDOTRACHEAL SUCTIONING

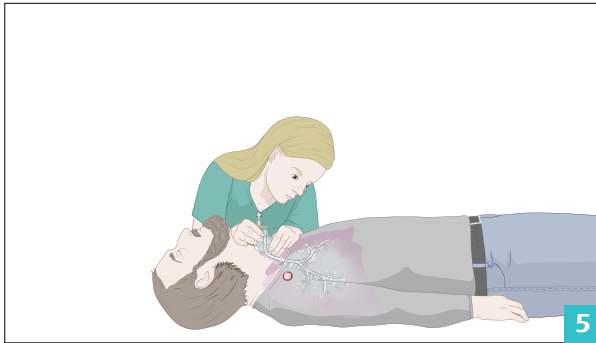
PATIENT INSTRUCTIONS



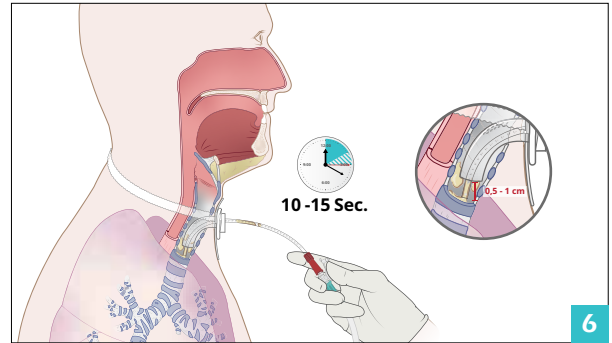
Always perform endotracheal suctioning in front of a mirror. Improve your vision with optimal lighting.



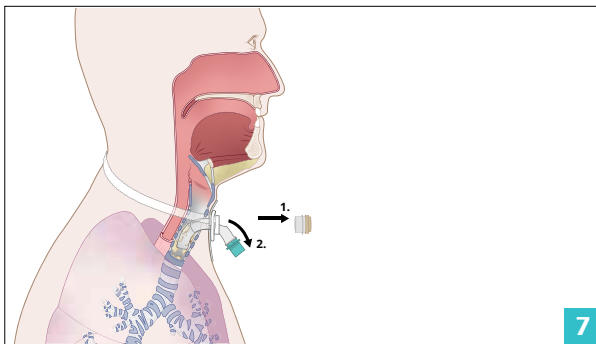
First remove the speaking valve/HME (if applicable). Then pull out the inner cannula from the outer cannula.



For suction of secretion, the catheter is carefully inserted into the trachea through the cannula tube in the tracheostoma. Avoid unnecessary contact with the catheter.



Advance the catheter by no more than 0.5-1 cm above the edge of the cannula tip. Suction is applied through closure of the finger tip.



Fill the rinsing tank with water. The suction procedure is used to rinse the suction tube.



Used disposable products must be disposed of. Check all materials for completeness for the next suction procedure.

TRACHEOFIRST® COMPACT



TECHNICAL DATA

Suction power	24 l/min $\pm$ 2 l/min
Max. vacuum	-76 kPa (-760 mbar; -570 mmHg) $\pm$ 4 kPa
Secretion container	1,000 ml
Power supply (battery charger)	100-240 V AC ($\pm$ 10 %)
Voltage frequency	50/60 Hz
Dimensions (H x W x D)	213 x 364 x 175 mm
Weight	approx. 2.2 kg

TRACHEOFIRST® COMPACT



The TRACHEOFIRST® COMPACT suction device is a tracheal suction device indicated in the home and clinic for patients with normal levels of secretion production.

The TRACHEOFIRST® COMPACT suction device features an ergonomic carrying handle. The electric swing-piston pump provides a suction power of 24 l/min and a maximum vacuum of up to 0.76 bar.

The secretion container has a capacity of approx. 1,000 ml. The device's suction power can be continuously adjusted using the vacuum gauge on the top of the device.

The supplied bacterial filter prevents microorganisms and secretions from penetrating into the device. The bacterial filter is connected between the suction device and the secretion canister using the short connecting tubes. It can be changed easily and quickly. TRACHEOFIRST® COMPACT features an additional air filter on the underside of the device. This prevents the unintentional escape of microorganisms and secretions from the device and thus serves as protection for the user.

There is also the option of operating the TRACHEOFIRST® COMPACT in the car via the 12 V car adapter.

SCOPE OF DELIVERY

1	TRACHEOFIRST® COMPACT incl. secretion container with lid	1	Battery charger/2-pin (100–240 V, 50–60 Hz)
2	Connecting tubes for bacterial filter	1	Mains connection cable (2-pin, 230V)
1	Suction tube	1	Bacterial filter
5	Air filter	1	Rinsing tank
1	12V car adapter	1	Carrying bag
1	Fingertip		

ORDER INFORMATION

TRACHEOFIRST® COMPACT

REF

67600

TRACHEOPORT® COMPACT

BATTERY OPERATION



TECHNICAL DATA

Suction power	24 l/min ± 2 l/min
Max. vacuum	–76 kPa (–760 mbar; –570 mmHg) ± 4 kPa
Secretion container	1,000 ml
Power supply (battery charger)	100–240 V AC (± 10 %)
Operating time with battery	Operating time of battery approx. 60 min/continuous operation
Charging time	approx. 4 hrs.
Voltage frequency	50/60 Hz
Dimensions (H x W x D)	213 x 364 x 175 mm
Weight	approx. 2.5 kg

TRACHEOPORT® COMPACT

BATTERY OPERATION



The TRACHEOPORT® COMPACT tracheal suction device is a particularly practical and powerful battery-operated small suction device for medical use.

The TRACHEOPORT® COMPACT is a mobile, mains-independent suction device and features an ergonomic carrying handle. The electric swing-piston pump provides a suction power of 24 l/min and a maximum vacuum of up to 0.76 bar. The fluid is collected in the secretion container, with a capacity of approx. 1,000 ml. The device's suction power can be continuously adjusted using the vacuum gauge on the top of the device.

The supplied bacterial filter prevents microorganisms and secretions from penetrating into the device.

TRACHEOPORT® COMPACT features an additional air filter on the underside of the device. This prevents the unintentional escape of microorganisms and secretions from the device and thus serves as protection for the user.

The battery is charged via the 12 V low-voltage connection of the device. The device can be charged or operated with either the battery charger or the car charging cable. The battery is fully charged in approx. 4 hours. Operating time of battery approx. 60 minutes. When the battery charger or the car charging cable is connected, the full suction power is available, even if the battery is empty.

SCOPE OF DELIVERY

1	TRACHEOPORT® COMPACT incl. secretion container with lid	1	Battery charger/2-pin (100–240 V, 50–60 Hz)
2	Connecting tubes for bacterial filter	1	Mains connection cable (2-pin, 230V)
1	Suction tube	1	Bacterial filter
5	Air filter	1	Rinsing tank
1	12V car adapter	1	Carrying bag
1	Fingertip		

ORDER INFORMATION

TRACHEOPORT® COMPACT

REF

63600

BACTERIAL FILTER

FOR SUCTION UNITS



This filter largely prevents bacteria and particles from entering the device, as well as preventing liquids from being sucked into the aggregate providing an additional reliable overflow protection.

The filter has an important function and should therefore be checked and replaced regularly.

ORDER INFORMATION	PU	REF
BACTERIAL FILTER	1	60800

AIR FILTER

These air filters prevent the unintentional escape of microorganisms as well as secretions from a suction device and thus serve as protection for the user.



ORDER INFORMATION	PU	REF
AIR FILTER	10	50000-07

TRACHFLOW® LINE CONNECT

CONNECTING TUBE



TRACHFLOW® LINE CONNECT is a non-sterile connection tube for suction devices.

ORDER INFORMATION	PU	REF
TRACHFLOW® LINE CONNECT, length 30 cm	1	60517

TRACHFLOW® LINE PRO

SUCTION TUBE



The TRACHFLOW® LINE PRO non-sterile suction tube with integrated fingertip is used for suctioning tracheal secretions. The suction strength can be controlled with the fingertip.

The TRACHFLOW® LINE PRO connects the suction device to the suction catheter. The material consists of soft, flexible and transparent plastic. It is available in two different lengths: 1.30 m and 2.10 m.

ORDER INFORMATION	PU	REF
TRACHFLOW® LINE PRO, length 1.30 m	1	60506
TRACHFLOW® LINE PRO, length 2.10 m	1	60508

TRACHFLOW® CONT

CATHETER HOLSTER



The TRACHFLOW® CONT is a practical container for storing suction catheters in a collected and protected manner. The spacious opening of the lid allows quick removal of the desired catheter during use.

Easy cleaning due to the unscrewable lid and the resilient material result in a long service life.

Different practical clips on the lid, for example, allow fixation to a standard rail or individual fastening by tape. Tubing systems may also be applied in an orderly manner.

ORDER INFORMATION	PU	REF
TRACHFLOW® CONT, short, 30 cm	1	65920
TRACHFLOW® CONT, long, 50 cm	1	65940

TRACHFLOW® FINGERTIP



The TRACHFLOW® FINGERTIP is used to connect the suction tube of the suction device to the sterile stoma catheter. The conical design allows one size to fit all sizes of stoma suction catheters. TRACHFLOW® FINGERTIP is used to regulate the suction intensity.

ORDER INFORMATION	PU	REF
TRACHFLOW® FINGERTIP	10	60700

TUBE AND FILTER SET



We want to make it easier for you to care for your suction device and therefore offer you our special tube and filter set for suction devices. This set contains the most important spare parts for suction units which should be replaced at regular intervals.

SCOPE OF DELIVERY		
1	TRACHFLOW® LINE PRO, length 1.30 m	10 Air filter TRACHEOFIRST®/-PORT COMPACT
1	Bacterial filter TRACHEOFIRST®/-PORT COMPACT	

ORDER INFORMATION	REF
TUBE AND FILTER SET TRACHEOFIRST®/-PORT COMPACT	60411

TRACHEOSTOMA CATHETER METRIC

STERILE


TRACHEOSTOMA CATHETER METRIC is a special version of catheters for neck breathers. The tracheostoma catheters are made of a flexible and transparent plastic. The particularly soft material is ideal for suction in the sensitive trachea. These suction catheters are available with a length of approx. 50 cm as well as with a length of only 25 cm, which facilitates insertion into the neck opening.

TRACHEOSTOMA CATHETER METRIC features a central opening as well as two lateral openings ("eyes") at the catheter tip. This arrangement has the advantage that the catheter stays flexible and does not adhere easily to the mucosa when large amounts of secretions and encrustations are produced.

A graduation (metric) on the tracheostomy catheter at 1 cm intervals allows direct control of the insertion depth of the suction catheter.

SIZE	O.D. MM	LENGTH S cm	LENGTH L cm	SHORE	COLOUR	PU	REF S	REF L
CH 06	2.0	-	50	A64		30	-	68000-06
CH 08	2.7	25	50	A64		30	68100-08	68000-08
CH 10	3.3	25	50	A64		30	68100-10	68000-10
CH 12	4.0	25	50	A64		30	68100-12	68000-12
CH 14	4.7	25	50	A64		30	68100-14	68000-14
CH 16	5.3	25	50	A64		30	68100-16	68000-16
CH 18	6.0	-	50	A64		30	-	68000-18

TRACHFLOW® METRIC

ATRAUMATIC/STERILE



TRACHFLOW® METRIC are atraumatic integral ring catheters. As a special feature, they have a circular bead at the tip of the catheter and 4 lateral suction openings. These special suction catheters must be inserted into the trachea under suction so that a so-called air cushion can form around the catheter tip. This effect can only fully be achieved with a greater distance between the catheter tip and the cannula. In contrast to atraumatic conventional suction catheters, these special catheters are therefore particularly suitable for deep endotracheal suction.

It is made of a particularly soft, flexible and transparent plastic, which is ideal for suction in the sensitive trachea. Despite high flexibility, the catheter made from medical PVC is sufficiently stable.

SIZE	O.D. MM	LENGTH S cm	LENGTH L cm	SHORE	COLOUR	PU	REF S	REF L
CH 10	3.3	25	50	A64		30	68630-10	68730-10
CH 12	4.0	25	50	A64		30	68630-12	68730-12
CH 14	4.7	25	50	A64		30	68630-14	68730-14
CH 16	5.3	25	50	A64		30	68630-16	68730-16

SUCTION CATHETER STANDARD METRIC

STERILE



The SUCTION CATHETERS STANDARD METRIC feature a central opening and two lateral openings ("eyes") at the catheter tip to prevent the catheter from adhering to the tracheal wall during suction. With its Shore hardness of 78, the suction catheter standard metric offers more dimensional stability than other catheters.

Suction catheters standard metric are to be used in conjunction with the TRACHFLOW® FINGER-TIP to regulate suction intensity. The

Fingertip is used to connect the suction tube of the suction device to the suction catheter. The conical design allows the TRACHFLOW® FINGER-TIP to fit all sizes of suction catheters.

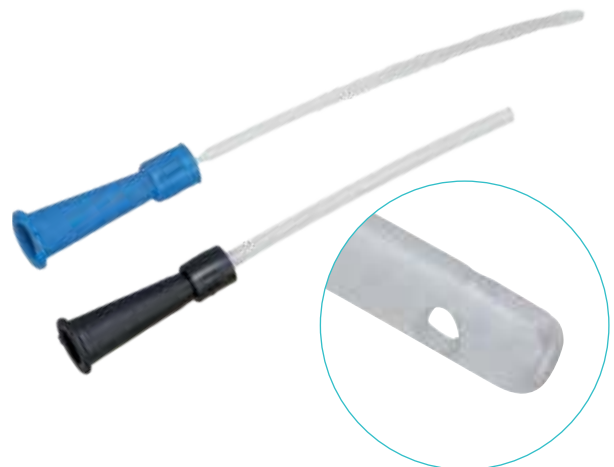
SIZE	O.D. mm	LENGTH cm	SHORE	COLOUR	ATRAUMATIC	PU	REF
CH 06	2.0	50	A78		x	100	68900-06
CH 08	2.7	50	A78		x	100	68900-08
CH 10	3.3	50	A78		x	100	68900-10
CH 12	4.0	50	A78		x	100	68900-12
CH 14	4.7	50	A78		x	100	68900-14
CH 16	5.3	50	A78		x	100	68900-16
CH 18	6.0	50	A78		x	100	68900-18

TRACHFLOW® SHUNT

STERILE

These special TRACHFLOW® SHUNT catheters enable the targeted suction of voice prostheses.

They are made of flexible, transparent plastic and are particularly easy to handle due to their length of approx. 10 cm. TRACHFLOW® SHUNT feature a central opening as well as two lateral openings ("eyes") at the catheter tip.



SIZE	O.D. mm	LENGTH cm	SHORE	COLOUR	ATRAUMATIC	PU	REF
CH 08	2.0	10	A64		x	30	68800-08
CH 10	2.7	10	A64		x	30	68800-10