

LOOK FORWARD TO BETTER BREATHING

TRACHI-NAZE[®] +PLUS

effective respiratory rehabilitation



- ✓ **RESTORES**
lost airway resistance
- ✓ **INCREASES**
oxygenation which improves breathing
- ✓ **DELIVERS**
benefits of heat & moisture in the trachea
- ✓ **MAXIMISES**
stoma protection



KAPITEX[®]

Adding Quality of Life to
Airway Management



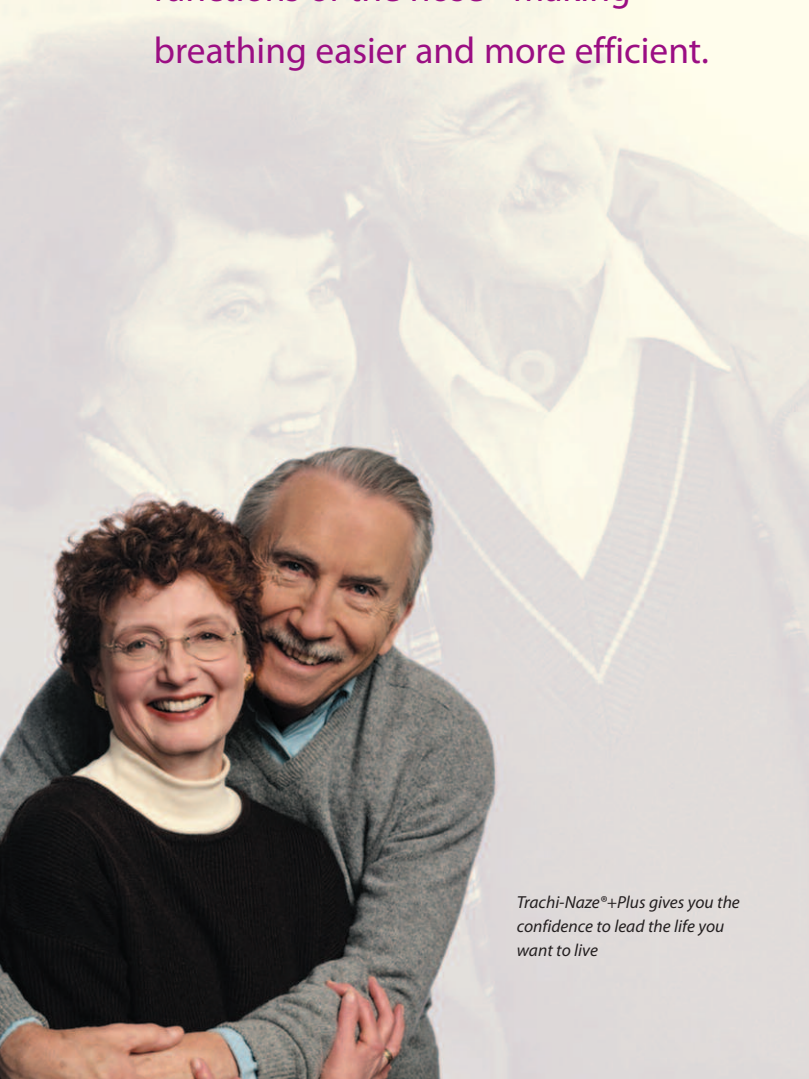
restoring your essential

A UNIQUE SYSTEM WHICH RESTORES THE

A revolutionary breakthrough for neckbreathers, **Trachi-Naze[®]+Plus** is the world's first externally worn system to restore the essential functions of the nose - making breathing easier and more efficient.

Trachi-Naze[®]+Plus Benefits!

- ✓ Restores normal airway resistance
- ✓ Increases blood oxygenation
- ✓ Reduces shortness of breath
- ✓ Reduced mucus production
- ✓ Reduced crusting around the stoma and trachea
- ✓ Increased lung protection
- ✓ Fewer chest infections
- ✓ Good heat and moisture within the trachea
- ✓ Excellent filtration
- ✓ Less coughing
- ✓ Improved sleep
- ✓ Greater confidence
- ✓ Improved well being



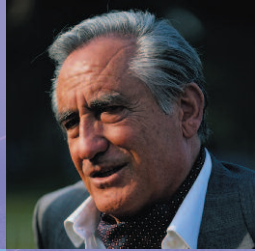
Trachi-Naze[®]+Plus gives you the confidence to lead the life you want to live



Trachi-Naze[®]+Plus provides alternative methods of fitting- see pages 4-5

"My improvement has been unbelievable - I can't speak too highly of Trachi-Naze®+Plus."

Mr. K.K.



al nasal function

VITAL NASAL FUNCTION TO NECKBREATHERS

The vital nasal function

Before laryngectomy

- Normally we breathe through the nose. In normal breathing, the nose warms, humidifies and filters incoming air. The nose protects the entire airway passage and lungs, keeping them in good condition.
- Importantly, the nasal passage also provides airway resistance which helps to provide a level of pressure within the lungs which is **vital** for efficient lung function and blood oxygenation.
- Lack of resistance and therefore poor oxygenation will diminish the respiratory function and will lead to a feeling of tiredness and lethargy.

Problems faced by neckbreathers

- Laryngectomy and tracheostomy patients do not breathe through the nose. They lose the benefit of the nasal function when breathing through the stoma opening in the neck.
- This can lead to problems and serious respiratory complications if the functions of the nose are not replaced and adequate airway protection provided.

Quality of life for laryngectomy and tracheostomy patients can therefore be dramatically improved if the role of the nose and airway can be restored.

Trachi-Naze®+Plus helps to achieve this.

Why airway resistance is essential

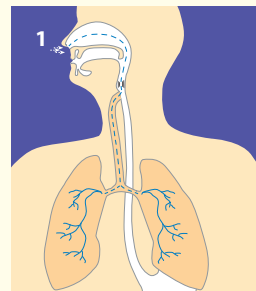
- Airway resistance is provided by the narrowing of the airway upon expiration. This is important as it creates a column of air within the trachea and lungs, contributing to pressures within the lungs which keeps the air sacs open.
- The air sacs (alveoli) need to be open to allow efficient gas exchange to take place. This means oxygen to enter the blood stream and carbon dioxide to leave it.
- **Trachi-Naze®+Plus** provides raised levels of oxygenation and contributes to efficient gas exchange

Trachi-Naze®+Plus is the only system which restores your lost breathing resistance

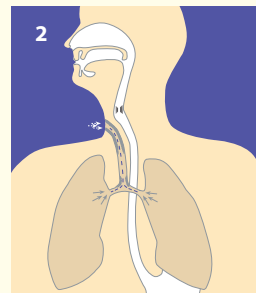
Trachi-Naze®+Plus restores the lost nasal function for neckbreathers.

It is the only externally worn system to add back heat, moisture, small particulate filtration and improves breathing and therefore increases oxygenation. Oxygenation is increased because **Trachi-Naze®+Plus** provides a functional airway resistance within the trachea, which plays an important role in the breathing process.

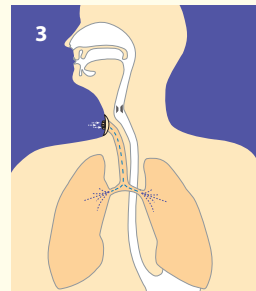
All these benefits have been clinically proven.



Before Laryngectomy



After Laryngectomy
-the missing nasal function



With Trachi-Naze®+Plus
-restored nasal function

① Before Laryngectomy

- Air breathed in is filtered, warmed, and humidified by the nose, with the nasal airway providing the resistance essential for efficient respiration and oxygenation within healthy lungs.

② After Laryngectomy

The laryngectomee breathes through the stoma in the neck, bypassing the nose, so air is not properly warmed, humidified or filtered.

- With no nasal function and no protection after surgery, air entering the trachea is dry, cold, unfiltered and therefore likely to contain dirt and bacteria.
- Without airway resistance there is also insufficient gas exchange and a consequent deterioration in respiratory efficiency.
- Patients experience crusting and drying out of the tracheal mucosa, and excessive production of mucus – a potential cause of chest infections.

③ With the **Trachi-Naze®+Plus** System

- **Trachi-Naze®+Plus** adds back heat, moisture and filtration benefits along with airway resistance - which are all important in respiratory rehabilitation.

Only the Trachi-Naze®+Plus solution restores your essential nasal airway function.

 **Trachi-Naze®+Plus - for effective respiratory rehabilitation**



performance that ma

INNOVATIVE TECHNOLOGY DESIGNED

3 Choices of fitting

The unique multi-function *Trachi-Naze*[®]+*Plus* system is available in three fitting options ensuring that all patients can benefit from better breathing

TRACHI-NAZE[®]+PLUS

STUD FITTING

Trachi-Naze[®]+*Plus* utilises non adhesive stoma studs to hold the filter cassette in position. Designed for use by patients who cannot tolerate skin adhesives, or are unable to use the baseplates because of recessed or uneven stomas, the stoma studs are available in various sizes ensuring gentle but effective stoma security.



TRACHI-NAZE[®]+PLUS TTA

TRACHEOSTOMY TUBE ATTACHMENT (TTA)

Trachi-Naze[®]+*Plus* filters can now be used by attaching to the tracheostomy tube attachment. They can be simply and quickly fitted to the 15mm connector on the tracheostomy tube.

See page 9 for the full description of the *Trachi-Naze*[®]+*Plus* TTA



TRACHI-NAZE[®]+PLUS

LARYNGECTOMY TUBE

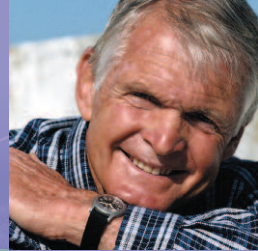
The *Trachi-Naze*[®]+*Plus* Laryngectomy Tube has been designed to hold the *Trachi-Naze*[®]+*Plus* filter cassettes for those who require a tube to support the trachea.

See pages 8 - 9 for a full description of the *Trachi-Naze*[®]+*Plus* Laryngectomy Tube



"My breathing has improved, coughing and secretions have been reduced since using the system."

Mr. J.M.



kes a real difference!

TO GIVE YOU BACK BETTER BREATHING

Trachi-Naze[®]+Plus Filter Cassettes - the heart of the system

Filter cassette discs are the heart of the Trachi-Naze[®]+Plus system.

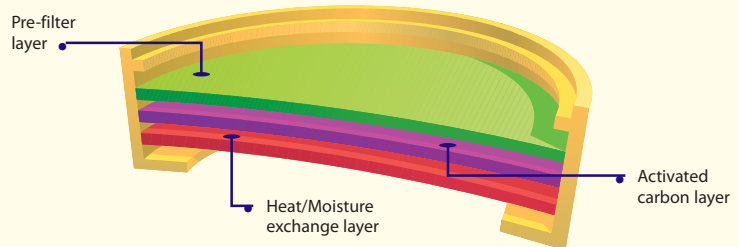
They contain three filter layers which when sealed onto the skin through the baseplate create a 'closed' system, ensuring that all air is warmed, humidified and filtered, and restoring a functional airway resistance.

The Trachi-Naze[®]+Plus family of multi-function filter cassettes - all have a place in daily life

- **The Blue Filter** (night filter) provides the normal airway resistance which improves oxygenation - these filters would be normally worn at night and can be easily tolerated during sleep.
- **The Green Filter** (Day filter) is comfortable during the day for normal activity - it provides half the level of airway resistance - but it is the regular use of the Blue and Green filter which maximizes respiratory performance.
- **The Orange Filter** (Active filter) enables wearers to carry out strenuous activity without losing the protection offered by the filters. It has minimal airway resistance.

Normal use indications: 2-3 filters every 24 hours. Initially upon introduction to the system for the first few days the number of filters may be higher (4-5 filters every 24 hours) - this will settle down after the initial period - approximately 3 to 5 days.

Effective component design and materials selection



Each filter cassette contains:

The Pre-filter layer

Filters out dust and larger airborne particles.

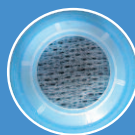
The activated carbon layer

Helps reduce bacteria entering the airway and further cleanses the air of smoke, gases and small particles.

The heat moisture exchange layer

Provides the heat and moisture needed to keep the tracheal mucosa in good condition.

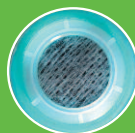
When placed together and in combination, with the system sealed onto the skin, these materials provide the functional airway resistance which is so vital for efficient breathing.



Night Filter

BLUE

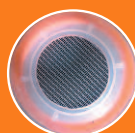
Normal airway resistance adding back almost all lost resistance



Day Filter

GREEN

Half airway resistance allowing free passage of air for daytime use



Active Filter

ORANGE

Minimal airway resistance allowing strenuous activities

✓ Trachi-Naze[®]+Plus is the only system which restores lost airway resistance



TRACHI-NAZE[®] 100 +PLUS

TRACHI-NAZE+PLUS – THE NON-ADHESIVE

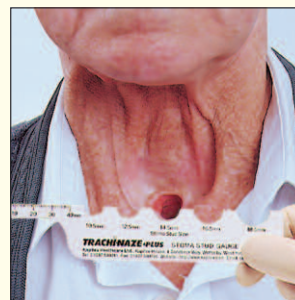
Sizing and fitting *Trachi-Naze*

Trachi-Naze[®]+Plus - comprehensive and versatile design

- **Trachi-Naze[®]+Plus** replaces the functions of the nose – warming, humidifying and filtering incoming air and uniquely restoring lost airway resistance to enhance breathing.
- Designed for use soon after surgery, **Trachi-Naze[®]+Plus** was developed for application onto recessed or uneven stomas. Patients can now enjoy the benefits of better breathing, delivered by non-adhesive silicone Stoma Studs and dedicated multi-function **Trachi-Naze+Plus** filter cassettes.
- The **Trachi-Naze[®]+Plus** stoma studs provide a gentle sealing within the stoma, and in combination with the **Trachi-Naze[®]+Plus** filter cassettes gives the wearer greater confidence as well as significantly enhanced respiration.



Patients can wear the Trachi-Naze[®]+Plus system soon after surgery and quickly begin to enjoy a significantly improved quality of life.



1 When the stoma has been cleaned and dried, the Stoma Stud measuring guide is used to measure the width and depth of the stoma opening.



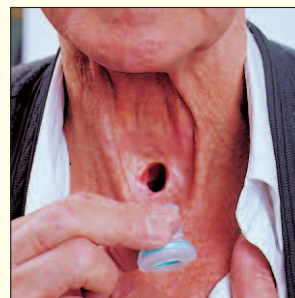
2 To ensure a snug fit, the size is checked with the Stoma Stud shaft resting on the corresponding cut-out on the measuring guide.



3 The chosen filter cassette is brought towards the Stoma Stud and placed in its rim.



4 The rim of the Stoma Stud is then pulled gently around the filter so that the filter cassette rests inside the lip of the Stoma Stud.



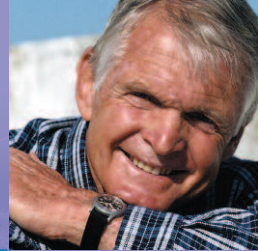
5 With the shaft of the Stoma Stud folded to make insertion easier, the stud and filter cassette assembly can now be placed into the stoma.



6 The Stoma Stud should fit snugly (not tightly), with the rim anchoring the stud in place.

"I find the whole system absolutely wonderful! my improvement has been unbelievable"

Mr. K.K.



Move forward to better breathing!

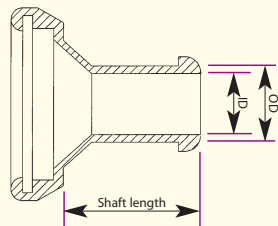


THE SOLUTION FOR SENSITIVE SKIN

Trachi-Naze®+Plus couldn't be simpler!

The right size of Stoma Stud for you

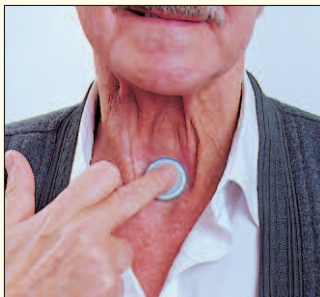
- The **Trachi-Naze®+Plus** stoma measuring guide ensures that the correct size of Stoma Stud is fitted. The guide indicates depth to the voice prosthesis (which determines the length of Stoma Stud to be used), and the outside diameter of the stud shaft. Two lengths of **Trachi-Naze®+Plus** Stoma Studs are available, with a choice of diameters.
- The shorter length of Stoma Stud is more suitable for voice prosthesis users, as the shaft will not reach the prosthesis opening.



Trachi-Naze®+Plus stoma stud sizes

	Short 14.5mm	Long 22.5mm
Outside diameter	10.5mm	10.5mm
diameter of shaft	12.5mm	12.5mm
	14.5mm	14.5mm
	16.5mm	16.5mm
	18.5mm	18.5mm

See order details on back page



Voicing

- The versatile design of the **Trachi-Naze®+Plus** cassettes allows easy attachment of the **Trachi-Naze®+Plus** Hands Free Valve for hands free speech (see pages 12 - 13) or simple finger occlusion during voicing (when using a voice prosthesis).

Changing Filter Cassettes

Filter cassettes should be changed at least twice every 24 hours. Mucus will adhere to the back surface of the filter.

- Remove the Stoma Stud by holding it and pulling it forward gently while turning it.
- Peel the filter cassette out of the Stoma Stud and replace it with a new one.



Trachi-Naze®+Plus Shower Shield

The shower Shield fits onto the occlusion cap of the filter cassette.

It also fits onto the occlusion cap which is used on the baseplates.

The Shower Shield can be an ideal protector in outside windy conditions - by deflecting the wind away from the stoma.



The **Trachi-Naze®+Plus Tracheostomy Tube Attachment (TTA)** allows tracheostomy tube wearers with a 15mm connector, to enjoy the benefits of better breathing with the **Trachi-Naze®+Plus** filter cassettes.

✓ **Trachi-Naze®+Plus - the alternative to adhesive baseplates**



TRACHI-NAZE[®] +PLUS

TRACHI-NAZE+PLUS LARYNGECTOMY TUBE

Laryngectomy Tube

The **Trachi-Naze[®]+Plus** range has been further enhanced by the introduction of the **Trachi-Naze[®]+Plus Laryngectomy tube**.

- Designed to hold the Trachi-Naze[®]+Plus filter cassettes.
- For those who require a tube to support the trachea (longer than stoma studs).
- Easy to place the Trachi-Naze[®]+Plus filter cassette and remove - (by bending the front lugs away from the cassette).
- Produced from medical grade silicone.
- Soft yet supportive for the stoma and the trachea.
- Smooth rounded edges - for extra comfort and safety.
- The Kapitex Laryngectomy tube can be fenestrated for voice prosthesis users, using the Kapitex fenestration punch, catalogue number TRACC 0017.
- Comprehensive diameters and lengths available to give you the best choice.
- Competitively priced.
- Supplied individually wrapped, clean with twill tape.
- Autoclavable - single patient use product



Trachi-Naze[®]+Plus laryngectomy tube in position (always use tapes on tube holders to secure the tube safely).



Trachi-Naze[®]+Plus laryngectomy tube held in place by Trachi-Hold tube holder, a modern, comfortable holder featuring Velcro[®] fastenings (Available separately).



Trachi-Naze[®]+Plus Laryngectomy Tube in place, using twill tape (supplied).

Kapi Gel - "A major problem solver, particularly when dealing with difficult stoma anatomy"



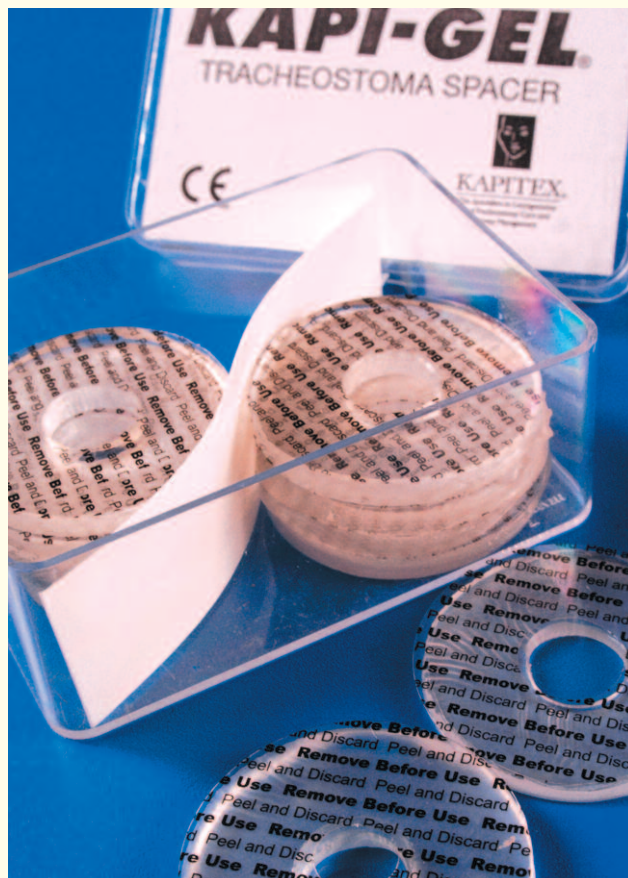
Comprehensive and versatile design



SOFT YET SUPPORTIVE FOR THE STOMA AND THE TRACHEA

KAPI-GEL® tracheostoma spacer

- Ideal for difficult stoma anatomy. Helps to 'fill in' the stoma area, allowing the comfortable use of Laryngectomy tubes, stoma studs, Heat Moisture exchange/filter holders.
- Acts as a cushion behind the above style of tubes, particularly useful if one is digitally occluding the stoma.
- Due to its transparency, Kapi-Gel is not noticeable around the stoma
- Will help with the location of stoma studs and laryngectomy tubes
- Promotes skin care around the stoma and helps reduce soreness around the stoma and tube site.
- May help reduce air leakage around the tube.
- Kapi-Gel is a tacky laminated silicone gel available in two thicknesses 3mm and 5mm and in two hole dimensions 8mm and 12mm. Spacer diameter 43mm.
- Available in packs of 10.



Kapi-Gel spacer on the shaft of a Trachi-Naze®+Plus laryngectomy tube



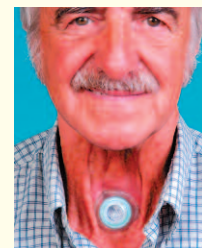
Kapi-Gel spacer on the shaft of a Trachi-Naze®+Plus stoma stud



Easy to remove release paper



Position over stoma*



Kapi-Gel spacer sitting behind Trachi-Naze®+Plus stud

✓ **Trachi-Naze®+Plus - the alternative to adhesive baseplates**



Trachi-Naze®+Plus

Why settle for a

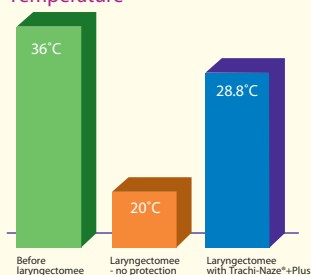
NO OTHER SYSTEM GIVES SO

Trachi-Naze®+Plus Benefits!

- ✔ Restores normal airway resistance
- ✔ Increases blood oxygenation
- ✔ Reduces shortness of breath
- ✔ Reduced mucus production
- ✔ Reduced crusting around the stoma and trachea
- ✔ Increased lung protection
- ✔ Fewer chest infections
- ✔ Good heat and moisture within the trachea
- ✔ Excellent filtration
- ✔ Less coughing
- ✔ Improved sleep
- ✔ Greater confidence
- ✔ Improved well being

The results speak for themselves!

Temperature



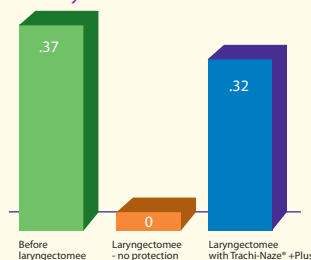
Temperature

Wearing **Trachi-Naze®+Plus** raises the air temperature within the trachea significantly – by up to 44% compared with no protection.

Humidity

The combination of warmth and humidity is vital for tracheal mucosa stability. Wearing **Trachi-Naze®+Plus** increases humidification by up to 50% compared with patients having no protection, at a room temperature of 20°C.

Airway Resistance

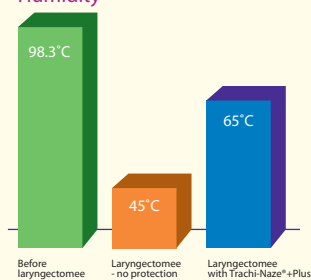


Airway resistance

Resistance in the upper airway plays an important part in the respiratory process. Resistance contributes to efficient lung function. Normal resistance is 0.37kpa, but laryngectomees without protection have virtually no airway resistance.

Trachi-Naze®+Plus can put back almost all the lost airway resistance when the Night filter is fitted.

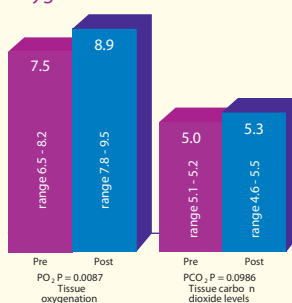
Humidity



Oxygenation

Improved respiration occurs when wearing **Trachi-Naze®+Plus** filter cassettes. Results have shown a 20% increase in oxygenation. This is due to the lung pressure provided (airway resistance) by the blue and green filter cassettes.

Oxygenation - 20% increase



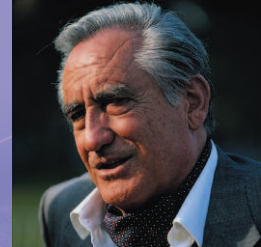
Filtration

The nose is highly efficient as a filter. **Trachi-Naze®+Plus** is almost as effective as the nose in filtering bacteria, dust and dirt particles out of the air. Without efficient filtration these particles would enter the lungs.

These measurements were taken in a controlled clinical situation with a room temperature of 20°C
Graphs for diagrammatic representation. Not to scale

"I do not believe it would have been possible to have returned to work without Trachi-Naze+Plus."

Mr. W.M.



Anything less?

MANY CLINICALLY PROVEN BENEFITS

FAQ's

Frequently asked questions...answered

How soon will I feel the benefits?

Normally within 24-48 hours, although some patients experience the benefits immediately.

How long will the stoma stud stay in place?

The stud will normally be removed when you need to change the filter cassette and when cleaning the stoma stud. The filter cassettes will often be changed every 12 hours. We recommend that the stoma stud be cleaned daily.

How long will the stoma stud last before using a new one?

With regular cleaning and care the stoma studs are designed to last 4-6 weeks. It is possible that during this time some discolouring will occur. The stoma studs should be replaced with new ones after this time, for hygiene and safety reasons.

How soon after surgery can the Trachi-Naze+Plus System be used?

Trachi-Naze+Plus can be used a few days after surgery, being non adhesive there are less problems to manage with skin issues. The stoma studs should only be used if there is no broken tissue around the stoma. The stoma stud can be used during radiotherapy.

Will the stoma stud come out if I cough?

For comfort and safety it is important that the stoma stud fits comfortably and snug into the stoma - not tight. This is to help prevent pressure problems against the tracheal mucosa. If severe coughing does occur, it is possible that the stoma stud will be expelled. However, it is safer to have a close fitting stud rather than have the stud 'locked' into the stoma.

What length of Stoma Stud should I use if I wear a voice prosthesis?

The shorter length is commonly used where voice prosthesis are fitted. The shorter length is designed so that the rim of the stud does not interfere with the voice prosthesis. However, the longer length may be beneficial to provide tracheal support. The longer length stud shaft will need to be fenestrated (creating an opening) to line up the opening in the stud to the voice prosthesis, so air can enter the prosthesis. By using the measuring guide, the clinician will be able to advise the best length required.

How often should I change the filters?

After the initial 'bedding in' period, filters are changed twice a day (so that you use one day and one night filter). During the initial period, however, when mucus production normally increases, the filters may be changed 5-6 times daily. The disposable filter studs cannot be cleaned.

Trachi-Naze+Plus Clinical References

The following papers and abstracts may prove useful.

Resistance, humidity and temperature of the tracheal airway

R.D.R. McRae, A.S. Jones, P. Young & J. Hamilton (Liverpool), Clinical Otorhinolaryngology 1995 Pages 355/356

Raising airway resistance in laryngectomy increases tissue saturation, clinical otolaryngology

August 1996, Vol 21 366-368 D. McRae, P. Young, J. Hamilton & A. Jones.

The following papers have been submitted but not yet published.

A study of a resistive heat moisture exchanger (Trachi-Naze®+Plus) on pulmonary function in patients who have undergone a laryngectomy: a randomised control trial of 50 patients studied over a six-month period.

A.S. Jones MD FRCS, P.E. Young BSc MRCSLT, Z. B. Hanafi FRCS, Z. G. G. Makura FRCS, J.E. Fenton FRCSI, J.P. Hughes FRCSI Department of Otolaryngology/Head & Neck Surgery, University of Liverpool

Respiratory care after laryngectomy - more than just heat and moisture

Pam Young, Speech Therapist Royal Liverpool Hospital

Trachi-Naze+Plus Video Guide

A video guide to the benefits and use of the Trachi-Naze®+Plus system is available from Kapitex Healthcare. Contact customer care on **01937 580211**



Trachi-Naze®+Plus - look forward to better breathing!

Trachi-Naze®+Plus Stoma Studs

	Shaft Length mm	Size ID mm	Size OD mm	Pack Size	Order Code
Trachi-Naze®+Plus Plus Short	14.5	8	10.5	pack of 2	LA TNP 2001
Trachi-Naze®+Plus Plus Short	14.5	10	12.5	pack of 2	LA TNP 2002
Trachi-Naze®+Plus Plus Short	14.5	12	14.5	pack of 2	LA TNP 2003
Trachi-Naze®+Plus Plus Short	14.5	14	16.5	pack of 2	LA TNP 2004
Trachi-Naze®+Plus Plus Short	14.5	16	18.5	pack of 2	LA TNP 2005
Trachi-Naze®+Plus Plus Long	22.5	8	10.5	pack of 2	LA TNP 3001
Trachi-Naze®+Plus Plus Long	22.5	10	12.5	pack of 2	LA TNP 3002
Trachi-Naze®+Plus Plus Long	22.5	12	14.5	pack of 2	LA TNP 3003
Trachi-Naze®+Plus Plus Long	22.5	14	16.5	pack of 2	LA TNP 3004
Trachi-Naze®+Plus Plus Long	22.5	16	18.5	pack of 2	LA TNP 3005

Each pack comprises: 2 stoma studs, 2 shower shields and measuring guide.

Filter Cassette Packs

Night Filter (Blue)	Nighttime filter cassette pack of 30	LA TNP 1001
Day Filter (Green)	Daytime filter cassette pack of 30	LA TNP 1002
Active Filter (Orange)	Active filter cassette pack of 30	LA TNP 1003

Starter Pack For Clinicians

Clinician Introductory Pack	Comprising all 10 sets of Stoma Studs, 1 box of each type of filter cassette	LA TNP 1111
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Tracheostomy Tube Attachment	pack of 2 complete with shower shield	LA TNP 5001
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Instructional Video	AF VID 0001 PAL (UK)	AF VID 0002 NTSC (US)
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Instructional CD	AF KCD 0001
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Laryngectomy Tube

Order Code	Cannula length (mm)	ID (mm)	OD (mm)
LA TNL 0820	20	8.0	10.5
LA TNL 0830	30	8.0	10.5
LA TNL 0840	40	8.0	10.5
LA TNL 0850	50	8.0	10.5
LA TNL 0860	60	8.0	10.5
LA TNL 1020	20	10.0	12.5
LA TNL 1030	30	10.0	12.5
LA TNL 1040	40	10.0	12.5
LA TNL 1050	50	10.0	12.5
LA TNL 1060	60	10.0	12.5
LA TNL 1220	20	12.0	14.5
LA TNL 1230	30	12.0	14.5
LA TNL 1240	40	12.0	14.5
LA TNL 1250	50	12.0	14.5
LA TNL 1260	60	12.0	14.5
LA TNL 1420	20	14.0	16.5
LA TNL 1430	30	14.0	16.5
LA TNL 1440	40	14.0	16.5
LA TNL 1450	50	14.0	16.5
LA TNL 1460	60	14.0	16.5

KAPI-GEL Tracheostoma Spacers

LA TNG 2008	Kapi-Gel THIN 3mm	8mm pack of 10
LA TNG 2012	Kapi-Gel THIN 3mm	12mm pack of 10
LA TNG 4008	Kapi-Gel THICK 5mm	8mm pack of 10
LA TNG 4012	Kapi-Gel THICK 5mm	12mm pack of 10

Due to continuous product improvements it may be necessary to alter without notice products within our range. We endeavour to keep all customers informed of product improvements. **Trachi-Naze®+Plus** is a registered trademark of Kapitex Healthcare Ltd. Worldwide Patents coverage.



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